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Comparative Perspectives in Economic Crises Geography. Economic Strategies in EU Countries

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COMPARATIVE PERSPECTIVES IN ECONOMIC CRISES GEOGRAPHY. ECONOMIC STRATEGIES IN EU COUNTRIES

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**Abstract:** The strategies for structural-systemic crisis management have generated, to a geographical

level, a number of differences between EU countries. These cleavages are the result of differential

macroeconomic policies. In this context, this article has the aim of achieving a comparative approach between

countries of the south, west and east of the EU space. Also our approach is focused on observing the nature of

macroeconomic policies and also on identifying a "pattern" associated with a common ideal -type of "rational

choice" in the efficient and effective management of systemic crises. This article aims to identify areas of growth

and economic stability of a particular model of public policy and political-economic ideology, to set up a

mechanism for "economic engineering". From the methodological point of view, this article uses a quantitative

methodology, derived from mathematical analysis, statistics and stochastic, in order to explain, understand and

predict the possible evolution of the systemic crises in the EU countries. The interest lies in the possibility of

giving a model of macroeconomic policy for the adjustment of inflationist imbalances, labor market and price

policy, and also in regulating the equation of production-consumption.

**Keywords:** economic crises, EU free market, economic cycle, GDP evolution, economic geography,

comparative approach

JEL Classification: E31, E32, G01

1. THEORETICAL APPROACHES IN EUROPEAN ECONOMIC DYNAMICS

The economic European context, almost in the last ten years, is characterized by some structural

changes and systemic dynamics. These changes are the result of European enlargement and economic

or commercial interactions between EU actors. In this sphere," the creation of the Euro zone

represented an ambitious project of EU deepening whose success is still uncertain, although one

certainly will welcome the expansion of Euro bond markets, the rising share of the Euro in global

currency reserves and the successful ECB policy which has achieved a low inflation rate and

considerable credibility as well. Moreover, reduced real interest rates in Euro area countries – except

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for Germany, the Netherlands and Austria which already had low interest rates prior to the start of the Euro and ECB – have translated into considerable capital gains." (Tilly, Welfens and Heise, 2007, p.2)

This economic background, based on uncertain success of a common financial market, and the prescription of Lisbon Agenda, could be characterized by an idealistic perspective of EU evolution and competition. The biggest success of economic policies has been the creation of a single economic market – as an example of successful liberalization of Europe area. In fact, the economic construction of EU has some political problems, generated by the geographic cleavage between West and East, the ideological "legacy" of eastern "fragile democracies", and also by the traditional and cultural configuration of particular countries of EU. In this meaning, we can observe a geographic disproportional level of economic policies coordination. This disproportional aspect of macroeconomic action or policy emphases two, or in some situations three, models of governmental coordination of economic policies, and two general ways for responding to systemic inputs: i) first of all, we can underline a liberal perspective in governmental action, in which everything is centered on the idea of free market. The augmentation of economic freedom (with elements like: business freedom, monetary freedom, fiscal freedom and trade freedom) has been seen like a major pillar of Western governmental action; ii) in the second model, the European economic dynamics can be seen like an inertial mechanism, in which the inertial forces are the result of eastern socialist tradition. The governmental strategy is based on the economic intervention. It is very difficult to discuss about free market and systemic feed-back between economic agents. But we can see some "socialist residuals" in eastern countries and the idealistic perspective of the "welfare state".

Two models of interaction are deduced from empirical reality through historical experience. The liberal model, in which we assist to a kind of "spontaneous order", supposes a common place for different actors: the free market. The free market is the result of this order of preferences, generating, in practice, a rational economical behavior and a rational modality for prioritizing the human economic or social needs. The post-socialist model is met, in general in the Third World, in the ex-soviet republics. This combines the common soviet lesson of national protection and intervention with some liberal aspects like rationality, public expenses, rational choice and rational preferences.

Although, in reality, Europe is divided around this two political and economical models, the idea of common free market emphases the liberal values, principles and directions. Creating a true single market required not simply abolishing border formalities but also removing or harmonizing a range of restrictive national regulations. A key tool was mutual recognition, which required member states to

accept the regulations and standards of other EU countries as equivalent to their own and allowed activities lawful in one member state to be pursued throughout the EC. (Eichengreen, 2008, p.341).

The central point around which is crystallized the economic EU sphere is represented by the common free market. This kind of arrangement supposes an economic transfer from national arena to transnational level. Almost disproportional between East and West, the economic transfer from national to trans-national space emphases a common economic strategy for growth, development, stability and efficiency. This ideal of Lisbon Agenda 2000 underlines the idea of international competitiveness. "Such observations have not reassured those who worry about Europe's ability to maintain its international competitiveness, expand its exports, and grow in the face of competition not just from the United States but from China and the rest of the developing world. Moving further into the production of high-technology products in which developing countries have relatively little presence is one potential source of insulation from this competition, but here observers worry about the bureaucratic obstacles to new firm formation and prohibitive hiring and firing costs discouraging high-tech startups". (Eichengreen, 2008, p.380)

It is very difficult, for the economic analyst, to create a scientific framework for prediction the EU position in international competitiveness. This epistemological difficulty derives from the heterogeneity of European markets, from the economic cleavages between countries with different geoeconomical positions, from asymmetrical economical and technical standards between EU members, from the complex and unpredictable interactions between common market and national economic sectors and from the lack of integration of certain services or industries in transnational economic structure.

"Strategies deployed by business in response to the challenge posed by the single market will be largely determined by the structural environment of their own industry. This is because the scope and character of the opportunities presented will be largely fashioned by this environment and the parameters set by it". (Dent, 1997, p.73) Theoretically, the elimination of commercial border and the process of creating a common free market are the main vectors of evolution and competitiveness in European Community. The elimination of trade borders is due to amplify the level of stability in internal markets of EU members and the level of competition in external economic relations of EU.

"The elimination of border controls will improve the competitiveness of intra-EU imports not only in relation to domestically produced products but also to extra-EU imports, potentially resulting in trade creation and trade diversion respectively. There should be an improvement in member states'

terms of trade as cheaper imports become more accessible and from a concomitant fall in inflation levels". (Dent, 1997, p.67) The integration process in a common financial market will generate a more efficient allocation of capital flows, and will enhance a competitive environment for national or crossnational economic actors. But, in practice, the common open market could be "contaminated" by national "economic illness", especially from the members of Eastern Europe. A common space for economic action supposes the translation of national problems or "good points" to the trans-national sphere. And, this mechanism could be in a disequilibrium moment, if we assist to a prevalence of imbalances from eastern countries. This procedure, in subsidiary level, determines a kind of imbalances import and economic insecurity. In this analytical framework we can wonder if a common liberal market will reduce the discrepancies between different geographic or historical economic spaces. "This is particularly relevant if we adhere to the core-periphery view of regional development which dictates that more liberalized market conditions will exacerbate the process of divergence between richer core regions and poorer peripheral ones. The alternative neo-classical view, based on the counter-belief of market forces working towards a convergent equilibrium position, argues that the SEM's effects would be contributive ultimately to greater regional balance. The Commission and most member states have embraced the former view more warmly. The SEA contained proposals to double the EU's Structural Funds as a compensatory measure against the anticipated detrimental impact of the SEM upon peripheral regions". (Dent, 1997, p. 71) This central-periphery approach can be applied in economic geography for understanding the discrepancies between economic policies in Western democracies in correlation with social protection and economic decisions from eastern "fragile democracies", or in association with the north countries models of economic growth and development.

The liberal meaning of EU economic building shows a kind of centrifugal model based on the entrepreneurial values and actions, crystallized around the rational economic behavior of the states or individuals. Thus, we can distinguish a kind of "Business Europe" constructed in parallelism with the social model of community space. Deriving from these normative premises, a liberal or neo-liberal conception of economic development based on a common and free market is the normative and both empirical solution to imbalances or disequilibrium. The essence of European free market consists in the freedom of factors of production like: labor, services and capital. In this equation all the economic services are equivalent or congruent with entrepreneurship. Thus, the business freedom and directs invests are fundamental values of a coherent and efficient financial market. "In order to complete the common market, the freedom to supply goods and services was to be accompanied by the free and

undistorted movement of factors of production. Labour, capital and enterprise (freedom of enterprise being termed the right of establishment) should be able to locate anywhere within the common market". (Swann, 2005, p.5)

The practice of a monetary union can be seen as the pillar around which is created the financial market. This union implies a set of economic standards for members, with the practical purpose of reducing the imbalances between developed countries and late developed countries or nations in economic transition. "Second, the debates about EMU also provoked thoughts about a European constitution. EMU would shift control over monetary affairs to the centre, to a European central bank to be known as 'Eurofed'. How would those concerned with monetary, and indeed budgetary policy be made accountable?" (Swann, 2005, p. 20) All the changes from eastern economic systems had influenced financial markets through the import of national inflation or the disequilibrium of the labor market. "The changes in eastern Europe and in the general international atmosphere had several implications. The changes were of such a magnitude that it was increasingly felt that the EPC mechanism was inadequate to bear the weight of the new challenge. The changes also implied the possibility of new members, but a larger Community would slow down decision-making in the absence of institutional reform". (ibidem)

Although, the changes in European economic structure could affect the equilibrium of free market, we can underline the major role played by the flexibility in economic trans-national construction. Flexibility is used with the sense of differentiated integration and represents a main feature of "constitutional orthodoxy" in the European Union. Flexible market regulation cannot be reduced to the removal of obstacles to movement across the single market and there is no reason to assume *a priori* that the adoption of uniform rules at Community level will necessarily result in a more flexible regulatory framework. EU regulation can be just as rigid as national regulation. Economic and Monetary Union has pushed the issue of flexible regulation to the top of the single market agenda". (Bernard, in Barnard & Scott, 2002, p. 102)

We can see the flexibility like a political necessity, reflected in the predilection of countries for the instrument of the directive rather than the regulation for internal market measures. In this meaning, in the economic literature of market integration we have met a synonymy between flexibility and a kind of "indirect rule" of the market. It is necessary to analyze the market dynamics and stability through flexibility, for understanding the different levels of economic integration. In practice the European Court of Justice maintained a strict line between the Community rules on competition, and the rules on free movement. "It is the latter issue, commonly referred to as the horizontal direct effect of the fundamental freedoms. The immediate cause of renewed interest in the principle of horizontal direct effect of the fundamental freedoms is to be traced back to a recent decision of the Court of Justice on the matter, in which it eschewed once more using the sibylline language that had gradually become its trademark and delivered a judgment clearly bearing marks reminiscent of some of the great judgments in the early days of the Court". (Van Den Bogaert, in Barnard & Scott, 2002)

The financial market integration objective is reflected in promoting securities market integration. This idea is seen as an important step for a long-term political vision of a robust EU. "Looking more narrowly at the economic objectives underlying the drive towards an integrated European financial market takes the debate into somewhat less contentious territory. Since it is a key function of financial markets, defined here as including equity markets, bond markets and the banking sector, to facilitate the allocation of resources to their most productive use, it is intuitively persuasive to expect connections between the depth and sophistication of a region's financial markets and its economic prosperity. A well-functioning integrated financial market that brings together previously fragmented pools of capital into a single source should offer a range of potential benefits to enhance the allocative efficiency of the market for the benefit of the real economy. For investors it should offer the potential for higher returns through enhanced opportunities for portfolio diversification in more liquid and competitive capital markets. For companies it should provide easier access to financing capital and to a wider choice of financial products at attractive prices". (Ferran, 2004, p.13) The main purpose for market security is represented by the economic growth and stability, without the geographical cleavages and economical traditions in Western Europe or Eastern Europe. In this framework, our purpose is to observe the evolution of economy and market in the EU sphere with any differences generated by the geo-economical positions and traditions. Thus, we want to observe, in this evolution, any types of economic policies for ameliorate the imbalances with their geo-political or geoeconomical relevance.

### 2. ECONOMIES IN SYSTEMIC CRISES: ECONOMIC CYCLES AND STRATEGY

In the core of Keynesian macroeconomic theory until the beginning of the 1970s we can put the concept of economic cycle. This is a kind of Neoclassical Synthesis with a strong theoretical and practical experience from the Great Depression of 1930's. This body of theory organizes the description of a closed economy into three major building blocks: the IS and LM relationships for the goods and money market, which in combination yield the so-called AD curve; an AS curve derived from the marginal productivity principle for labour; and demand facing supply on the labour market. In its basic equilibrium formulation, prices (p) as well as nominal wages (w) are perfectly flexible, so that the economy is on its steady-state growth path. (Chiarella, Flaschel, Franke, 2005, pp. 8-9)

In the history of economics, no subject has been more puzzling than the business cycle. Although numerous theories have been suggested since the cycle was first recognized late in the eighteenth century, none of them has succeeded in providing a full explanation of this phenomenon. The causes of the cycle suggested by these theories seem to cover every kind of economic and noneconomic factor one could imagine. (Kyun, 2006, pp.1-2) These theories are centered on the possibility of explaining the economic dynamic through a cycle perspective, with the possibility of generating a kind of "economic laws" like the theories or concepts from natural sciences. One of the main variables of cycle analyses is represented by the competition on the free markets. In this meaning we can observe that an economical cycle has two main phases: growth and crises (depression). The by-pass between growth and crises is marked by the presence or the absence of economic competition. "Like all complex elements, competition has consequences as well as benefits. Competition leads to crisis, the dark side of free-market economics. Despite this drawback, competition is the final element that leads to a free market's complexity. Remember, complexity is a process. It is always dynamic, always changing and adapting. There is no such thing as static equilibrium. Equilibrium is a dynamic process in which the global or typical characteristics are stable, but the details are ever changing. Competition keeps the process moving. The goal of competition might be: the food in an ecosystem, an optimal solution in a neural network, or the available capital in a free market. The competition cannot be unconstrained, however. There are always rules to ensure that cooperation continues." (Peters, 1999, p.94)

We cannot imagine a cycle between growth- crises- growth without underling the major role played by economic competition. This competition is in fact the natural law of entrepreneurship and also one of the basic models of organizing a free market.

According to Joseph Schumpeter the entrepreneurial action, based on competition between two or more agents, can be reduced to a creative response to economic environment. Thus, we can distinguish two phases: adaptive phase and creative phase. Both phases, as components of entrepreneurial action, are the expression of the by-pass between economic recession and economic growth. "To the Austrians, the business cycle is a matter of coordination. Individuals are trying to mesh their plans in order to meet separate objectives. In particular, producers are attempting to coordinate their production and development activities in order to satisfy the needs of consumers. In a "perfect market," these activities would be exactly met. Strangely, the mainstream school calls this "perfect competition," even though the concept eliminates competition. When producers and consumers exactly mesh their plans, there is no need for competition. Instead of perfect competition, the theory should have been called "perfect coordination." An important assumption is built into the perfect competition model: All parties have the same information and value it in the same way. Only if knowledge is homogeneous will a state of perfect competition exist". (Peters, 1999, pp. 99-100)

As part of economic cycle, the systemic crises generate a set of negative externalities in national or trans-national economic structure. The lack of competitiveness, the lack of direct investments from entrepreneurs and the imbalances from national economy are the hypostases of economic recession. This phase of economic cycle is regarded for the analysts like a natural phase which could be ameliorated. In this meaning some American economists like Bernake were interested in the process of economic cycle amelioration. But all these perspectives put in "front office" the economic uncertainty and the impossibility of artificial amelioration of this cycle. This aspect could be one of the explanations for the systemic crises, which derives from monetary infusions in "ill economic sectors" or in financial markets.

As part of economic cycle, European financial crisis is without any precedent since 1945. Credit growths, the infusion of monetary liquidity, low coordination of macroeconomic policies are some relevant aspects for understanding the cyclic movements of national economies. The international trade and international economic relations between EU countries and USA is a relevant mechanism for understanding the spreading of economic recessions in different geographic positions. We have here a kind of "contamination" through financial or economic markets. In this sense, the EU countries had imported all negative externalities from USA markets. The important difference is that, like during the Great Depression of the 1930s, the current crisis is endemic and global. We assist, to cycle recession with systemic effects, but with different ways and strategies for ameliorate or reduce the impact.

"Notwithstanding the heavy policy intervention, the EU economy, like other developed economies, is projected to shrink by some 4% in 2009, the sharpest contraction in the EU's history (European Commission 2009). Signs of incipient recovery abound, but this is expected to be rather sluggish as demand will remain depressed due to deleveraging across the economy as well as inevitable structural adjustments. As discussed in a recent Commission report (European Commission 2009), the crisis is likely to raise five challenges" 12. In this context the challenges are:

- Unless policies change considerably, the growth potential will suffer as parts of the capital stock are obsolete and increased risk aversion will weigh on capital formation and R&D
- ii) While job losses have been contained so far, eventually the impact of rapidly rising unemployment will be felt.
- iii) The fiscal deficits and debt will continue to increase, also in a structural manner as tax bases shrink permanently and contingent liabilities stemming from bank rescues may materialise.
- iv) The financial crisis has asymmetric effects, which poses a long-lasting challenge for intra-EU adjustment.
- v) There are potential implications of the present crisis for the resolution of the global imbalances <sup>13</sup>

In this context of a cycle paradigm of disequilibrium in EU economy we consider that all the economic policies implemented by the EU actors to the national level, and also to the level of common market are variable in magnitude, intensity, efficacy and governmental management. All these differences are the product of different geographical level, and, for this reason, our purpose is to underline some explanation of intensity and magnitude using as comprehensive unit the geographical distribution inside the EU.

<sup>&</sup>lt;sup>13</sup> See an empirical analyses realized by István P. Székely, Paul van den Noord in the *Economic crisis in Europe: Cause, consequences, and responses – A report by the European Commission*. This report can be consulted on <a href="http://www.voxeu.org/index.php?q=node/4065">http://www.voxeu.org/index.php?q=node/4065</a>



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<sup>12</sup> See http://www.voxeu.org/index.php?q=node/4065

### 3. DATA AND METHODS

The paper tries to adequate the normative implications and perspectives in practice of systemic economic crises inside EU. Starting with this theoretically premises we want to describe and also to explain the various modality of economic recession and the possible solutions for ameliorate this phase of economic cycle, using a quantitative methodology of research. This kind of methodology will facilitate the comprehensive - inference procedure and will create a mathematical approach in the geography of economic crises. The main purpose of this research is to transcend the limit of descriptivism in understanding economic imbalances in EU, and also the cleavages between Western economies and Eastern macroeconomic policies for development, integration in EMU and stability.

The research questions of this study are: i) which are the basic features of European economic crises? ii) How we can understand the economic crises in EU through a geographical partition? iii) which are the possible solutions for ameliorate this phase of economic cycle? These questions are both normative and empirically, in this case our design of research focuses in two main directions- 1. a theoretical direction, in which we try to enounce comprehensive inferences about EU economic dynamics and strategies for reduce the economic crises impact; 2. an empirical case study, in which we want to observe.

The main hypotheses of this research are: h<sub>1</sub>: Western countries, with liberal traditions, are more efficient in reducing the negative externalities of economic crises. h<sub>2</sub>: Eastern EU members, with post socialist orientation, have greater predisposition in assimilating negative externalities in economic recession.

The aim of this paper is to observe, at empirical level, the main variables that explain economic crises. Starting with this point of view, this analyzes will be applied in EU members from different geographic position. We use regional case study for understanding the particularities of the the economic crises in the EU markets. The case study is also completed by direct observation and by secondary data, derived from academic research or scientific institutes of economic researches. Our methodological design supposes a comparative case study between: Greece, France, and Romania. This study is focused on different geographic perspectives from South, West, and East.

To the analytical level we use the following variables:  $x_1$ - GDP dynamics,  $x_2$ - economic freedom,  $x_3$ - central governmental debt,  $x_4$ - direct investment,  $x_5$ - nonperforming bank loans,  $x_6$ - inflation GDP deflator, and  $x_7$ - labor force.

Numerical values for each variable, except economic freedom, are calculated/estimated by World Bank data survey, and economic freedom is measured to the scale 0-100 by the Heritage Foundation.

This analyze is focused on a longitudinal exploratory analyses among 2006-2009, for observing the cycle phases: the end of the economic growth period between 2006 and 2007 and the first stage of economic crises between 2008-2009.

Our mathematical models are based on a basic statistics and also on regression models for understanding the main correlations and associations between variables. In this meaning we will use simple differential equations:

$$Y = \frac{dy}{dx}$$

Also, we will use simple integral calculus and Newton-Leibnitz theorem:

$$\int_{a}^{b} f(x) dx = F(b) - F(a)$$

Our exploratory model is based on linear and nonlinear regression with:

$$y = a + bx_i$$
, and

$$\begin{cases} na + b \sum_{i=1}^{n} x_{i} = \sum_{i=1}^{n} y_{i} & a = \frac{\sum y_{i} \sum x^{2}_{i} - \sum x_{i} \sum x_{i} y_{i}}{n \sum x_{i}^{2} - (\sum x_{i})^{2}} \\ a \sum_{i=1}^{n} x_{i} + b \sum_{i=1}^{n} x_{i}^{2} = \sum_{i=1}^{n} x_{i} y_{i} & b = \frac{n \sum x_{i} y_{i} - \sum x_{i} \sum y_{i}}{n \sum x_{i}^{2} - (\sum x_{i})^{2}} \end{cases}$$

Starting with these statistical and mathematical tools, our research wants to explain the economic dynamics between 2006-2009 in different geographic area for understanding a general tendency in EU economy and the areas with a high level of economic risks.

# 4. RESULTS AND DISCUSSIONS

# 4. 1. Case Study: Greece

To the descriptive level we can observe this dynamic of each variable:

Figure 1 - Descriptive Indicators for Greece

Descriptive Statistics

	Mean	Mean Std. Deviation	
GREECE GDP DYNAMICS	2,2500	3,06866	4
NONPERFORMING BANK LOANS IN SPAIN	2,5250	2,11088	4
INFLATION GDP DEFLATOR IN SPAIN	2,5250	1,68201	4
ECONOMIC FREEDOM IN GREECE	60,0500	,94692	4
CENTRAL GOVERNMAENTAL DEBT IN GREECE	128,0750	7,17141	4
DIRECT INVESTEMENT IN GREECE	4E+009	1836328531	4
NONPERFORMING BANK LOANS IN GREECE	5,6500	1,41539	4
INFLATION GDP DEFLATOR IN GREECE	2,7250	,97425	4
LABOR FORCE IN GREECE	5184220	20623,85717	4

Figure 2 - Correlations for Greece

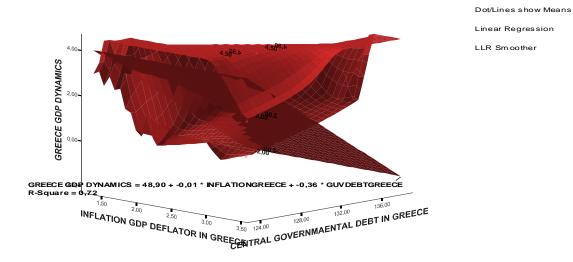
#### Correlations

			1	1	1		1	
				CENTRAL		NONPERFOR	INFLATION	
		GREECE	ECONOMIC	GOVERNMAE	DIRECT	MING BANK	GDP	LABOR
		GDP	FREEDOM IN		INVESTEMEN	LOANS IN	DEFLATOR	FORCE IN
		DYNAMICS	GREECE	IN GREECE	T IN GREECE	GREECE	IN GREECE	GREECE
GREECE GDP	Pearson Correlation	1	-,717	-,849	,293	-,898	,817	-,732
DYNAMICS	Sig. (2-tailed)		,283	,151	,707,	,102	,183	,268
	N	4	4	4	4	4	4	4
ECONOMIC FREEDOM IN	Pearson Correlation	-,717	1	,572	,452	,676	-,360	,585
GREECE	Sig. (2-tailed)	,283		,428	,548	,324	,640	,415
	N	4	4	4	4	4	4	4
CENTRAL	Pearson Correlation	-,849	,572	1	-,359	,990*	-,962*	,262
GOVERNMAENTAL DEE	Sig. (2-tailed)	,151	,428		,641	,010	,038	,738
IN GREECE	N							
		4	4	4	4	4	4	4
DIRECT INVESTEMENT	Pearson Correlation	,293	,452	-,359	1	-,268	,601	-,055
IN GREECE	Sig. (2-tailed)	,707,	,548	,641		,732	,399	,945
	N	4	4	4	4	4	4	4
NONPERFORMING BAN	l Pearson Correlation	-,898	,676	,990*	-,268	1	-,927	,365
LOANS IN GREECE	Sig. (2-tailed)	,102	,324	,010	,732		,073	,635
	N	4	4	4	4	4	4	4
INFLATION GDP	Pearson Correlation	,817	-,360	-,962*	,601	-,927	1	-,246
DEFLATOR IN GREECE	Sig. (2-tailed)	,183	,640	,038	,399	,073		,754
	N	4	4	4	4	4	4	4
LABOR FORCE IN	Pearson Correlation	-,732	,585	,262	-,055	,365	-,246	1
GREECE	Sig. (2-tailed)	,268	,415	,738	,945	,635	,754	
	N	4	4	4	4	4	4	4

<sup>\*.</sup>Correlation is significant at the 0.05 level (2-tailed).

We can observe high negative correlations between nonperforming bank loans, central governmental debt and GDP dynamics. We can underline these associations with strong power with values > -0.80. Also we can estimate that a causal model of GDP recession could be a high inflation deflator rate, with a strong correlation. (r=0.81). In the regression model we can estimate a nonlinear relation between GDP, inflation and governmental debt with y=0.72. These powerful correlations explain the recession through a high level of inflation and a high level of governmental debt. The governmental debt generates a high level of nonperforming bank loans. To the statistical level we can observe that r=0.99.

Figure 3 – Regression Model: Greece



# 4. 2. Case Study: France

To the descriptive level we can observe this dynamic of each variable:

Figure 4 - Descriptive Indicators: France

Descriptive Statistics

	Mean	Std. Deviation	N
FRANCE GDP DYNAMICS	,5500	2,32307	4
ECONOMIC FREEDOM IN FRANCE	62,8000	1,55349	4
CENTRAL GOVERNMAENTAL DEBT IN FRANCE	72,4250	7,29857	4
DIRECT INVESTEMENT IN FRANCE	7E+010	1,713E+010	4
NONPERFORMING BANK LOANS IN FRANCE	3,0250	,40311	4
INFLATION GDP DEFLATOR IN FRANCE	2,0000	1,00333	4
LABOR FORCE IN FRANCE	3E+007	262742,82855	4

**Figure 5 - Correlations for France** 

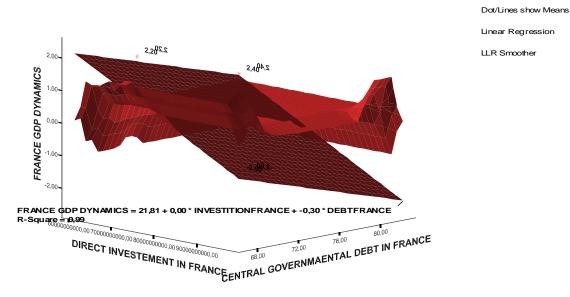
#### Correlations

				CENTRAL		INFLATION	
			ECONOMIC	GOVERNMAE	DIRECT	GDP	LABOR
		FRANCE GDP	FREEDOM IN	NTAL DEBT	INVESTEMEN	DEFLATOR	FORCE IN
		DYNAMICS	FRANCE	IN FRANCE	T IN FRANCE	IN FRANCE	FRANCE
FRANCE GDP DYNAMICS	Pearson Correlation	1	-,586	-,992**	,744	,872	-,774
	Sig. (2-tailed)		,414	,008	,256	,128	,226
	N	4	4	4	4	4	4
ECONOMIC FREEDOM IN	Pearson Correlation	- ,586	1	,482	-,479	-,137	,870
FRANCE	Sig. (2-tailed)	,414		,518	,521	,863	,130
	N	4	4	4	4	4	4
CENTRAL	Pearson Correlation	-,992**	,482	1	-,720	- ,925	,711
GOVERNMAENTAL DEBT	Sig. (2-tailed)	,008	,518		,280	,075	,289
IN FRANCE	N						
		4	4	4	4	4	4
DIRECT INVESTEMENT	Pearson Correlation	,744	-,479	-,720	1	,517	-,357
IN FRANCE	Sig. (2-tailed)	,256	,521	,280		,483	,643
	N	4	4	4	4	4	4
INFLATION GDP	Pearson Correlation	,872	-,137	- ,925	,517	1	-,497
DEFLATOR IN FRANCE	Sig. (2-tailed)	,128	,863	,075	,483		,503
	N	4	4	4	4	4	4
LABOR FORCE IN	Pearson Correlation	-,774	,870	,711	- ,357	-,497	1
FRANCE	Sig. (2-tailed)	,226	,130	,289	,643	,503	
	N	4	4	4	4	4	4

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

We can observe high negative correlations between central governmental debt and GDP dynamics ( r= -0,99). Also we can estimate that a causal model of GDP recession could be a high inflation deflator rate, with a strong correlation. ( r= 0,87) . Direct investments could be regarded as a mechanism of reducing disequilibrium. To the statistical model direct investments are correlated with the growth of GDP in 75%, with a Pearson coefficient r=0,744. In the regression model we can estimate a nonlinear relation between GDP, inflation, governmental debt and direct investment with y= 0,99. A good mechanism for equilibrate inflation deflator associated with a high level of direct or foreign investment determine a positive growth of GDP. We cannot apply a deterministic model, but we can observe that direct investment is the real source of economic growth.

Figure 6 – Regression Model: France



# 4. 3. Case Study: Romania

To the descriptive level we can observe this dynamic of each variable:

Figure 7 - Descriptive Indicators: Romania

Descriptive Statistics

	Mean	Std. Deviation	N
ROMANIA GDP DYNAMICS	3,7000	8,25146	4
ECONOMIC FREEDOM IN ROMANIA	61,0750	2,09662	4
CENTRAL GOVERNMAENTAL DEBT IN ROMANIA	,0000	,00000	4
DIRECT INVESTEMENT IN ROMANIA	1E+010	3165962518	4
NONPERFORMING BANK LOANS IN ROMANIA	7,1500	5,64771	4
INFLATION GDP DEFLATOR IN ROMANIA	10,4750	2,80164	4
LABOR FORCE IN ROMANIA	9886077	232458,48065	4

Figure 8 - Correlations for Romania

#### Correlations

				CENTRAL		NONPERFOR	INFLATION	
		ROMANIA	ECONOMIC	GOVERNMAE	DIRECT	MING BANK	GDP	LABOR
		GDP	FREEDOM IN	NTAL DEBT	INVESTEMEN	LOANS IN	DEFLATOR	FORCE IN
ROMANIA GDP	Dannan Camalatian	DYNAMICS	ROMANIA	IN ROMANIA	T IN ROMANIA	ROMANIA	IN ROMANIA	ROMANIA
DYNAMICS	Pearson Correlation	1	-,658	."	,929	-,920	,895	,961*
DINAMICS	Sig. (2-tailed)		,342	:	,071	,080,	,105	,039
	N	4	4	4	4	4	4	4
ECONOMIC FREEDOM IN	Pearson Correlation	-,658	1	. a	-,474	,817	-,475	-,770
ROMANIA	Sig. (2-tailed)	,342			,526	,183	,525	,230
	N	4	4	4	4	4	4	4
CENTRAL	Pearson Correlation	.a	, a	, a	.a	, a	, a	. a
GOVERNMAENTAL DEBT IN ROMANIA	Sig. (2-tailed) N	٠			٠			
		4	4	4	4	4	4	4
DIRECT INVESTEMENT	Pearson Correlation	,929	-,474	. a	1	-,716	,725	,794
IN ROMANIA	Sig. (2-tailed)	,071	,526			,284	,275	,206
	N	4	4	4	4	4	4	4
NONPERFORMING BANK	Pearson Correlation	- ,920	,817	. a	-,716	1	- ,895	-,992**
LOANS IN ROMANIA	Sig. (2-tailed)	,080,	,183		,284		,105	,008
	N	4	4	4	4	4	4	4
INFLATION GDP	Pearson Correlation	,895	-,475	.a	,725	-,895	1	,919
DEFLATOR IN ROMANIA	Sig. (2-tailed)	,105	,525		,275	,105		,081
	N	4	4	4	4	4	4	4
LABOR FORCE IN	Pearson Correlation	,961*	-,770	. a	,794	-,992**	,919	1
ROMANIA	Sig. (2-tailed)	,039	,230		,206	,008	,081	
	N	4	4	4	4	4	4	4

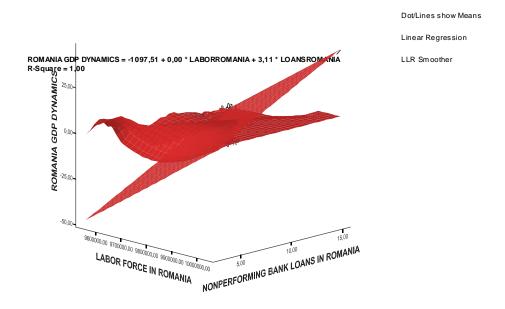
<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

A Romanian crisis, like almost Eastern European economic crises, is the product of a combined 4 factors. With different values, each factor could be analyzed as a causal variable for the recession and for the "retard" of governmental macro policies. In this context direct investment, nonperforming bank loans, inflation deflator and labor force are the main variables of economic depression. All statistical correlations are significant for r= 0,92 or r= 0,96. The absence of direct investment associated with nonperforming bank loans explain the GDP disequilibrium with r=0,92. The labor market is quite significant in GDP negative evolution with r= 0,96. In this case study we can observe a deterministic manner between labor force, nonperforming bank loans and negative growth of GDP. All these elements create a specific model of economic crises, with a great incidence in eastern countries. This model could influence negatively the natural evolution of EU market and economy in the absence of a coherent and efficient macroeconomic policy.

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Figure 9 – Regression Model: Romania



## **CONCLUSIONS**

This paper reflects the main economic tendencies of the EU members, especially from different geographical areas, with historical particularities and economic problems in managing the systemic crises. In EU evolution we have argued the main role played by the free market and entrepreneurship, as a vector for EU development, and as a true solution for structural crises. The financial market integration objective is reflected in promoting securities market integration. This idea is seen as an important step for a long-term political vision of a robust EU. The main purpose for market security is represented by the economic growth and stability, without the geographical cleavages and economical traditions in Western Europe or Eastern Europe.

In this framework, our purpose is to observe the evolution of economy and market in the EU sphere with any differences generated by the geo-economical positions and traditions. Thus, we want to observe, in this evolution, any types of economic policies for ameliorate the imbalances with their geo-political or geo-economical relevance. As part of economic cycle, European financial crisis is without any precedent since 1945.

Credit growths, the infusion of monetary liquidity, low coordination of macroeconomic policies are some relevant aspects for understanding the cyclic movements of national economies. As a result

for empirical analyses we can distinguish two types of economic crises and a western-liberal solution for economic growth. Thus, we have observed a model based on inflation and governmental debt, associated with bank credits, especially met in Southern Europe or in Western Democracy and a kind of mixt model, where the absence of investment, inflation, labor market disequilibrium, a high level of public debt are the main vectors of economic depression. A viable solution, observed in western countries practice could be: a high level of economic freedom (70-80%) associated with a high degree of direct or foreign investment. Here, we have to underline the neo-liberal perspective of economy based on entrepreneurship and competition between economic national or trans-national agents.

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