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regional approach**

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# Values, beliefs and economic behaviors: a regional approach

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**Abstract.** The purpose of this paper is to identify relationships between value orientations, beliefs and economic behaviors of agents, on one side, and differences between levels of economic development, on the other. Empirical analysis is based on a sample of Portuguese municipalities and correspondent parishes, organized in groups set by an urban-versus-rural typology and according to levels of development as measured by GDP per capita. Different value orientations, beliefs and behaviors were identified. Four clusters were thereby considered, generically correspondent to “stabilization”, “economic nationalism”, “entrepreneurship” and “consumerism”. These clusters are related to the spatial dimensions considered.

**Keywords:** *Values, beliefs, economic behaviors, Portuguese regions.*

## **1. Introduction**

The main purpose of this paper is to identify relationships between value orientations, beliefs and economic behaviors of agents, on one side, and differences between levels of economic development, on the other.

The empirical analysis is based on a sample of Portuguese municipalities and correspondent parishes, organized in groups set by an urban-versus-rural typology and according to levels of development as measured by GDP per capita.

Different value orientations, beliefs and behaviors were identified according to mostly either supply-side or demand-side, as well as predominantly State versus Private Sector orientations. Four clusters were thereby considered, that we generically named as corresponding to “stabilization”, “economic nationalism”, “entrepreneurship” and “consumerism”. These clusters are related to the spatial dimensions considered. Parishes named “rural”, “rural-urban” and “urban” have shown, albeit in a small degree, a prevailing orientation to the State, whereas “developing” parishes lean to private sector. Rural parishes are markedly consumerist, whereas in those said “rural-urban” supply-side orientation prevails. Both “urban” and “developing” (correspondent to zones going through big recent changes) occupy, in this context, an intermediate position.

Using various empirical techniques, namely descriptive statistics, principal component analysis, econometrics (GMM), etc., an in-depth study of values, attitudes and behaviors is made based on a significant and detailed sample of Portuguese population. This work can be an important instrument of analysis and decision support for the implementation of regional policies.

## **2. Methodology**

The methodology for data gathering was based on a classification combining a set of four indicators: 1) rural condition; 2) accessibility to goods and services; 3) income and modernity; 4) activity level and renovation. With these indicators, based on indexes proposed by Pereira et al (2008), a cluster analysis was made classifying all the Portuguese parishes (4.037) as belonging to one of four distinct clusters.

The four indicators aforementioned allowed the construction of four statistical indexes based on the geographical characterization of each parish (regarding the “rural condition” and the “accessibility to goods and services”) and operating also at the level of municipalities’ membership (resulting from these two indexes of “economic contextualization”, named as index of “income and modernity” and index of “activity and renovation”).

After systematically collecting data corresponding to the territorial units, each of the indexes was build using factor analysis techniques. All these indexes confirm the existence of a largely heterogeneous territory in terms of dimension of rurality, accessibility and economic context. After identifying the homogeneous parishes, according to these criteria, a cluster analysis was operated, applying to a sample representative of Mainland Portugal.

### **2.1 Municipalities’ analysis / Classification of parishes**

The starting point for the cluster analysis was a classification of Portuguese parishes according with the four indicators previously mentioned: rurality, accessibility to goods and services, income-and-modernity, activity-and-renovation. Each parish has therefore one particular value for each one of these indicators. The cluster analysis performed suggests the existence of four distinct clusters. The final result, with the description of the content and profile of each cluster, as well as the number of parishes by cluster, is presented in Figure 1.

< Figure 1 about here >

The cluster analysis was made at the parish level, as at the municipal level the results were not statistically robust. Consequently, it was based on the results stemming from parishes that the municipalities were indirectly grouped. The results, with a confidence level of 95% and a sample error of 7%, are presented in Table 1.

< Table 1 about here >

The municipalities were studied as regards their parishes’ distribution and number of parishes by cluster. This way we know how many parishes each municipality has in each cluster. Therefore,

we are able to identify those that are the more homogeneous municipalities by cluster, that is to say, with the correspondent parishes more concentrated in just one cluster. Besides, this categorization allows an estimation of resident population in each cluster.

At this stage, it was not considered the homogeneity of municipalities but only which of them would correspond to each cluster, in order to allow us an approximation to total population. The data concerning population by municipality were obtained from INE (2007). Using this procedure, we have sufficient and adequate data for specifying our sample. The calculations made point to a sample adequate dimension of 1.000 individuals for Inland Portugal: for a confidence level of 95%, a sample error of 3,1% and a Z value of 1,96, we obtained a sample dimension of 999.

We had to select 187 parishes distributed by the aforementioned clusters. Given the estimative of population by cluster (B) and the correspondence of this value in the sample (C), it is possible to calculate the number of individuals by parish (see Table 2).

< Table 2 about here >

Given the small number of parishes to select in clusters 2, 3 and 4, it is imperative to operate in our final analysis at the municipality level. Since the absolute values to collect in each parish are below 30, we must work with, respectively, 2 parishes by municipality in Cluster 1, 6 parishes by municipality in Cluster 2, 15 parishes by municipality in Cluster 3 and 8 parishes by municipality in Cluster 4 (Column F). Dividing the column D values by these values we obtain the number of municipalities of the sample of column G. For a representative sample of 187 parishes we have then a final sample of 30 municipalities. The numbers in the table are not exact but approximate, in order to simplify the calculations.

The data collection by this procedure will be more rich and exact because we will exclude from the municipalities the parishes that are not truly “characteristic” of that municipality, since they are located in another cluster. We start with a representative sample of parishes which results in a further aggregation of municipalities.

## **2.2 Selection of the municipalities to be questioned**

According with Table 2, Column G, we need 10 municipalities in Clusters 1 and 2, and 5 municipalities in Clusters 3 and 4. For the final selection we use the information about the parishes' distribution, now in order to:

1. Choose the most “homogeneous” municipalities by cluster; and
2. Try to obtain municipalities from all the clusters in all the major regions of the country, whenever possible.

In Table 3 we have the distribution of municipalities by cluster, which constitutes the reference for the choice of parishes.

< Table 3 about here >

This was one possible and viable selection, respecting all the defined criteria. Within these municipalities, parishes were chosen to be considered based on the fact of their corresponding to the cluster to which the municipality belongs and in the number (column F) presented at Table 2.

The aim of the adoption of this methodology was to allow us to proceed with the collection of data in a systematic way. After the selection of municipalities in which to implement the questionnaire, the field work occurred between April and September 2009. On the whole, 949 individuals participated in filling the questionnaire, divided by municipalities and clusters according with the results presented in Table 4.

< Table 4 about here >

In each municipality an average of 32 questionnaires were launched, with a minimum of 24 in Vila Real and a maximum of 41 in Almada and Cascais. The distribution of individuals by municipality is presented in Table 5.

< Table 5 about here >

The sample is composed by 593 females (64%) e 333 males (36%). The participants' minimum age is 16 years and the maximum 84, with an average value of 34 years (Standard Deviation equal to 11.9).

### **3. Values, beliefs and economic behaviors**

The purpose of this analysis was to provide a contribution to the understanding of how psycho-sociological factors impact on economic life. Values and beliefs are cognitive components essential in the formation of the relationships of individuals with the economy, even though the influence of these cognitive components on the economic behavior (specifically regarding saving, credit and investments) has not yet been fully clarified.

The economic beliefs have been associated with pathological behaviors regarding money (see, concerning this, Furnham, 1996; 1997) and with the support for different human values (see Heaven, 2001). In Bastounis et al (2004) data was collected from eight countries and it was shown that the “control locus” (that is to say, the attribution of the causality of events to individuals' external or internal causes) is related to the economic values supported: in synthesis, it can be said that the external “control locus” is mostly related to the absence of trust on firms and to protest against the unfair treatment of workers.

In this context, we aim at:

- (1) Studying the structure of economic values in a Portuguese sample;
- (2) Describing the beliefs of Portuguese citizens as regards the functioning of the economy;
- (3) Identifying the prevalence of saving, credit, demand and investment behaviors;
- (4) Understanding the connection between values, beliefs and economic behaviors.

#### **3.1 Economic values**

Regarding economic values, we adopted the Scale of Economic Values of O'Brien and Ingels (for more details about this scale, see O'Brien et al, 1987), initially developed in the United States and having afterwards been applied with adaptations in several countries.

A study of Principal Component Analysis (PCA) has in our case uncovered a structure considerably different from the one originally defined by these authors, suggesting that the common ideas about economics are much different in Portugal and the USA.

Four components were extracted [Sphericity test of Bartlett=1397.943,  $p<.05$ , Kaiser-Meyer-Olkin .723  $p<.05$ ; Minimum communality .382], explaining a total variance of 54.2%. These components are: **1) Conservatism, 2) Alienation, 3) Support of the economic system and 4) Pro-Business leaning**. The composition of these components is presented in Table 6.

< Table 6 about here >

Based the correlation analysis, one of the main conclusions is that Conservatism values are strongly connected with Alienation, and also with Support of the economic system, but at a lower scale. Alienation is also positively correlated with Pro-Business values as well as the Support of the economic system (see Table 7).

< Table 7 about here >

### **3.2 Economic beliefs**

With the purpose of studying the economic beliefs of Portuguese citizens, we used the scale proposed in Leiser and Briskman-Mazliach (1996) about the common understanding of the functioning of the Economy. This scale measures in multiple choice answers the explanations given by participants about the unemployment-inflation trade-off, the causal factors being attributed either to the individuals, the firms or the State. A descriptive analysis of the reported beliefs is presented, in synthesis, in Figures 2 to 6.

< Figures 2 to 6 about here >

Therefore, the majority of respondents think that, in order to mitigate the unemployment problem, Government should help the firms, the citizens should buy only domestic products and the investment of firms should be increased. On the other hand, the majority considers that saving has not an impact on unemployment. The best strategy to fight inflation is, according to the majority



of respondents, to lower the interest rate, which may indeed be also considered a clear indication of economic illiteracy. Finally, the respondents agree with the idea that the government should help people investing in new businesses in order to improve the economic situation of the country.

In what regards the whole set of these five aspects, it is useful to consider each of the identified clusters per se. The analysis of the individuals' economic beliefs by cluster reveals the existence of some significant differences. Although there are no differences about either how the government should solve the unemployment problem ( $\chi^2=15.777$ ,  $p>.05$ ) or about the causes of inflation ( $\chi^2=14.719$ ,  $p>.05$ ), there are differences across clusters about the way citizens should contribute to lower unemployment ( $\chi^2=30.669$ ,  $p=.002$ ), about how savings influence unemployment ( $\chi^2=17.614$ ,  $p=0.04$ ), about how to avoid inflation ( $\chi^2=23.537$ ,  $p=.023$ ) and about how the government should improve the economic situation of the country ( $\chi^2=28.250$ ,  $p<.05$ ) (see Figures 7 to 10).

< Figures 7 to 10 about here >

The urban-rural cluster has the participants that are less inclined to invest on their personal wealth and more inclined to investment in businesses as an instrument to fight unemployment. In what concerns the way how savings affect unemployment, development cluster's participants consider mainly that more saving increases unemployment, while rural cluster's members find that more saving diminishes unemployment.

In order to avoid inflation, individuals of rural cluster consider more than others that persons should be able to have more easy access to credit, but in the so-called development cluster the opinions are more supportive of the idea of consuming more. Last, but not least, rural-urban members are those more agreeing that government should help people investing with the aim of improving the financial situation of the country.

Regarding economic behaviors (Figure 11), the main conclusion is that the majority of respondents claim to save (71.84%) There are differences by cluster concerning the experiences of saving

( $\chi^2=20.904$ ,  $p=0.000$ ). Rural cluster's individuals (87%) claim to save usually more than other clusters' individuals, although all the values are high. More than half of the respondents say that they have already bought through credit (62.34%). On the other hand, a large part of individuals does not have any kind of investment (84.81%) and this result is consistent by municipality ( $\chi^2=40.145$ ,  $p=.082$ ). Regarding the act of buying through credit there are no differences across clusters ( $\chi^2=3.123$ ,  $p=0.373$ ), with values of magnitudes ranging 60%-70%. The values corresponding to investment are much lower and exhibit only a marginal difference across clusters ( $\chi^2=7.603$ ,  $p=0.055$ ). The clusters where citizens claim to tend to invest more are, somewhat surprisingly, the rural cluster (15.2%) and the development one (12.4%).

< Figure 11 about here >

As about saving, there are significant differences ( $\chi^2=68.812$ ,  $p<.05$ ) across municipalities. The municipality with participants claiming to be less prone to saving is Lisbon (38%), while the more saving-inclined are in Abrantes (91%), Guarda (92%), Mirandela (93%) and Sertã (92%) (see Figure 12).

< Figure 12 about here >

In what concerns the use of credit, there are also large differences across municipalities ( $\chi^2=56.762$ ,  $p=.02$ ). Guarda, Santa Maria da Feira and Viana do Castelo are the municipalities where the respondents less mention buying through credit, while Almada, Beja, Cartaxo, Odivelas and Silves are the municipalities with more abundant declared use of credit instruments (Figure 13).

< Figure 13 about here >

#### **4. Principal component analysis and multiple correspondences: patterns**

The analysis of multiple correspondences determines the correspondences' relationships between different variables in an attempt to reduce the data complexity, thereby allowing the search for patterns. Four patterns were found in our study, organizing data in a way that allows an aggregate interpretation. The number of individuals corresponding to each pattern is presented at Table 8.

< Table 8 about here >

The dimension 1 (axis of abscissa) distinguishes the main perceived influences upon the Economy as being Demand-side (+), or instead Supply-side (-). The dimension 2 separates the individuals who attribute the Economy's direction to the public sector (+) or instead to the private sector (-). The interception of these dimensions identifies four patterns marked by different colors (Figure 14). The categories which mostly differentiate the patterns are signaled by the respective color. The category combining colors red/blue ("to buy only national products") is shared simultaneously by group 3 and group 4. The categories combining colors purple/orange (4th quadrant, "increase of construction" and "encourage consumption") are simultaneously shared by groups 1 and 2. The two categories corresponding to the indicator "*For improving the economic situation of the country, government should ...*" are properly marked, and each one of them is also associated with a pair of groups, as marked by the arrows.

< Figure 14 about here >

Next, a brief description of each pattern is made. Pattern 1 combines an orientation to the supply side with dominance of the private sector – firms' growth – that was named "Entrepreneurship". Pattern 2 is characterized by an orientation to the demand side and also leaning to the private sector – consumption and use of private credit – which we designated as "Consumerism". Pattern 3 is also related to the demand side, but in this case related to the public sector's influence; it was denominated "Stabilization" because it combines the drive for wages growth with a concern vis-à-vis the reduction of consumption's capacity. Finally, group 4, combining the influence of public sector's supply with the defense of public spending reduction, was named "Economic Nationalism".

## **5. Patterns and types of municipalities**

There are relevant differences by cluster ( $\chi^2=45.012$ ,  $p<.05$ ), gender ( $\chi^2=12.111$ ,  $p=.007$ ) and schooling ( $\chi^2=32.054$ ,  $p=.06$ ), but not by age (Table 9). The associations between these variables are shown in Figure 15. The cluster "In development" is connected both to Entrepreneurship and

Consumerism. The cluster “Rural-urban” is particularly associated with Economic Nationalism. The “Urban” cluster has associations with both the patterns of Economic Nationalism and of Stabilization, while the “Rural” cluster links only with the latter.

< Figure 15 about here >

Women are associated with patterns of Entrepreneurship and Economic Nationalism, while men are closer to Consumerism. Regarding education, extreme levels (1-4 years and graduate) are associated with Consumerism, intermediate levels related to Nationalism and Economic Stabilization and finally Entrepreneurship is connected to individuals with degrees.

A systematization of socio-demographic characteristics is present in Table 9.

< Table 9 about here >

## **6. Patterns and economic values**

The economic values reported by the participants have a mean value significantly different by pattern (Table 10) and the profile of each pattern concerning the four components of economic values found is shown in Figure 16.

< Table 10 about here >

< Figure 16 about here >

On “Conservatism” there are significant differences between the pattern of Consumerism and the other three patterns ( $p < 0.05$ ). On “Alienation” meaningful differences are also identifiable between the pattern of Consumerism and Entrepreneurship ( $p < 0.01$ ). On “Defense of the economic system” we notice significant differences between the patterns of Economic nationalism and Stabilization ( $p < 0.05$ ). On “Pro-business”, the pattern Economic nationalism presents significant mean differences with both the pattern Stabilization ( $p < 0.05$ ), and the pattern of Consumerism ( $p < 0.001$ ).

There is an association, on the one hand, between Conservatism and Alienation and, moreover between Pro-business and Support of the economic system.

### **7. Economic values and categories of Municipalities**

As for municipalities, those belonging to Rural and “In development” clusters are more associated with the values Conservatism and Alienation. The Rural-urban municipalities have high levels of prevalence with the values of Pro-business and Defense of economic system. With regard to the municipalities of Urban type, there are average levels below the overall average, and those are clearly identified with each and every of the economic values (Table 11).

< Table 11 about here >

### **8. Patterns, Economic values and types of municipalities**

To further analyze patterns, economic values and types of municipalities, we subsequently used an analysis designated CatPCA (Principal Component Analysis for Categorical Data), which is a type of factor analysis allowing the conciliation of quantitative variables with quality variables. Quantitative variables are represented by vectors and qualitative variables are represented by points that match their categories.

For the positioning of the patterns, CatPCA shows that the pattern of Consumerism is clearly associated with the values of Alienation and Conservatism. The same type of association, although less intense, is valid also for the pattern of Stabilization.

The patterns that point to Entrepreneurship and Economic Nationalism are mostly associated with “Pro-business” and “Support of the economic system” values, exactly the opposite of the patterns of Stabilization and Consumerism.

Continuing the exploration of the associations between economic values, patterns and types of counties, let us assume now that we want to test the model of moderation. The central question is:

does the variable type of municipality convey any influence or effect on the relationship between patterns and economic values? We will then test the model presented in Figure 17.

< Figure 17 about here >

It is only interesting to search whether the effect of interaction is significant. Through the results obtained with a econometric analysis using the General Linear Model (GLM) we have concluded that there is a moderating effect (interaction) to the economic values: Conservatism ( $F = 2405$ ,  $p=0.011$ ) and Pro-business ( $F=2,097$ ,  $p=0.027$ ). The profile plots (Figures 18 and 19) allow the assessment concerning the contours of the interaction effect in each of the two situations with significant effect.

< Figures 18 and 19 about here >

Returning to the relationship between economic values, patterns and types of counties, we add the economic behaviors (Q5 – “do you usually save?”, Q10 – “have you already bought goods and services on credit?”, Q17 – “do you have investments?”). To this end a further analysis of the CatPCA type (Figure 20) was made. Given the configuration already obtained in previous CatPCA, it is perceptible that the buying behaviors involving “having made investments”, “having borrowed” and “having savings” emerge associated with the profile that combines the values of pro-business and support of the system with the patterns of pro-investment and counter-investment, and also the predominance of municipalities of rural-urban type.

< Figure 20 about here >

The absence of those economic behaviors is mostly associated with another profile. The pattern of consumerism is more associated with the refusal of the economic behaviors in question. It is also worth noting the agreement with values such as alienation and conservatism. This seems to be the profile of both rural and developing municipalities.

## **9. Concluding remarks**

This paper sought to identify relationships between evaluative orientations, beliefs and economic behaviours of agents on the one hand, and differences in levels of regional development, on the other.

The empirical analysis was based on a survey of almost one thousand people, living in a set of Portuguese municipalities (and respective parishes) that were selected in order to constitute a representative sample of the whole nation, according to a typology rural / urban and also according to the level of development as measured by GDP per capita.

We identified patterns considering a higher prevalence of orientations either for the supply-side or for the demand-side, as well as orientations predominantly for the State or for the market. This methodology allowed us to construct four clusters, corresponding to "stabilization", "economic nationalism", "entrepreneurship" and "consumerism". These clusters were then framed in a context of spatial analysis, and crossed with different typologies at this level of analysis.

A key finding was the fact that the parishes named "rural", "rural-urban" and "urban" exhibit an orientation that emphasizes the role of the state (although in general not very marked), while the parishes said "in development" (i.e., those belonging to regions which have recently gone through a strong structural change) are markedly oriented to the market.

Another important conclusion, and indeed somewhat unexpected, is that the "rural" parishes are markedly consumerist, while the "rural-urban" are dominated by the orientation towards supply. Interestingly, both "urban" and "developing" regions occupy, as to this criterion, an intermediate position. In fact, the cluster "in development" is associated with both entrepreneurship and consumerism. The "rural-urban" cluster is particularly related to economic nationalism. The "urban" cluster has associations with both patterns of economic nationalism and of stabilization, while the "rural" cluster relates only with the latter.

Regarding the intersection with values, we verify that the pattern of consumerism is clearly associated with “alienation” and “conservatism” values. The same type of association, though less intense, is shown by the pattern of stabilization. The patterns pointing to entrepreneurship and economic nationalism are predominantly associated with “pro-business” and “support of the economic system” values, exactly the opposite of the patterns of stabilization and consumerism.

Concerning the moderation by the typology of municipalities, we found the relevant fact that the values of “pro-business” and “support of the economic system” are linked with the municipalities of rural-urban type. The absence of these economic behaviours is mostly associated with the other profile. It is also worth noting the agreement with values such as “alienation” and “conservatism”. This seems to be the profile of both rural and developing municipalities.

These results are important for the formulation of economic and social policies taking into consideration the regional dimension, which is, in our opinion, a crucial element for a better knowledge of economies and societies, given the significant geographical differences in values, beliefs and economic behaviors.

Finally, we should mention the important aspect that the enquiry supporting this study was carried out before the ongoing economic crisis or in its very early stages, and so a important final suggestion is that any updating/enlarging of the field research we have proceed to is likely an important tool in order to assess both elements of permanence and possible shifts in mentalities accompanying changes in economic situations, and vice-versa.

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## Appendix 1: Tables

Table 1: Number of parishes (total and sample) by cluster

Cluster	Nr. Parishes Total	%	Nr. Parishes Sample
Cluster 1	421	10,4	20
Cluster 2	1307	32,4	60
Cluster 3	1477	36,6	68
Cluster 4	832	20,6	39
<b>Total</b>	<b>4037</b>	<b>100,00</b>	<b>187</b>

Table 2: Sample details

A	B	C	D	E	F	G
CLUSTER	Population by cluster	% of representative national sample	Nr. Per. by Sample	Nr Indiv Sample by Parish	Nr Parishes by Municipality	Nr Municipalities Sample
Cluster 1	4,1 Thous.	400	20	20	2	10
Cluster 2	3,3 Thous.	330	60	5	6	10
Cluster 3	1,1 Thous.	110	68	2	15	5
Cluster 4	1,5 Thous.	150	39	4	8	5
TOTAL	10 Thous.	1000	187			<b>30</b>

Table 3: Municipalities by cluster

<b>REGIÃO</b>	<b>CLUSTER 1</b>	<b>CLUSTER 2</b>	<b>CLUSTER 3</b>	<b>CLUSTER 4</b>
<b>NORTE</b>	Porto Matosinhos	Viana do Castelo Vila Real	Ponte da Barca Mirandela	Ponte de Lima Amarante Esposende St Maria Feira Oliveira Azemeis
<b>CENTRO</b>	Coimbra	Guarda Figueira da Foz Abrantes	Sertã	
<b>LISBOA</b>	Lisboa Odivelas Cascais Almada Setúbal	Montijo Cartaxo		
<b>ALENTEJO</b>		Montemor-o-Novo Beja	Portel	
<b>ALGARVE</b>	Portimão Faro	Silves	Alcoutim	

Table 4: Questionnaires by cluster and Nr. of respective municipality

<b>Cluster</b>	<b>Municipality</b>	<b>Questionnaires</b>
1 Urban	10	359
2 Rural-urban	10	291
3 Rural	5	147
4 Development	5	151
<b>Total</b>	<b>30</b>	<b>948</b>

Table 5: Distribution of individuals by municipality

<b>Concelho</b>	<b>Cluster</b>	<b>Questionnaires</b>
Abrantes	2	25
Alcoutim	3	28
Almada	1	41
Amarante	4	27
Beja	2	31
Cartaxo	2	31
Cascais	1	41
Coimbra	1	37
Esposende	4	32
Faro	1	28
Figueira da Foz	2	30
Guarda	2	28
Lisboa	1	39
Matosinhos	1	38
Mirandela	3	33
Montemor-o-Novo	2	26
Montijo	2	37
Odivelas	1	40
Oliveira de Azeméis	4	31
Ponte da Barca	3	30
Ponte de Lima	4	30
Portel	3	26
Portimão	1	26
Porto	1	35
Santa Maria da Feira	4	31
Sertã	3	30
Setúbal	1	34
Silves	2	26
Viana do Castelo	2	33
Vila Real	2	24
<b>Total</b>		<b>948</b>

Table 6: Components extracted by the economic values' scale

Component	1	2	3	4
q1.17 The average worker is receiving its fair share of business	<b>,722</b>	-,070	,006	,086
q1.18 The labor unions are too powerful	<b>,681</b>	-,165	,011	,201
q1.12 Taking care of the poor and sick is a role of families and the Church is not the responsibility of the Government	<b>,637</b>	,321	,096	-,110
q1.11 A person who cannot get a job can only blame itself	<b>,582</b>	,074	,207	-,228
q1.15 It is not the role of government to control commodity prices	<b>,526</b>	,313	,088	-,022
q1.9 it is not worth worrying about the state of the economy because I cannot do anything about it	<b>,508</b>	<b>,465</b>	-,123	,051
q1.14 Succeeding in life is mostly a matter of luck	,104	<b>,754</b>	,001	-,028
q1.13 The unemployed should not feel guilty for their situation: blame the economic system	-,021	<b>,742</b>	-,032	,212
q1.2 People who blame society or others for your money problems are shirking their responsibility	,057	-,075	<b>,789</b>	-,029
q1.3 Our economy needs more people willing to save for the future	-,056	,100	<b>,709</b>	,109
q1.1 If workers want higher wages they must work harder and produce more	,216	-,082	<b>,613</b>	,132
q1.6 The Government should listen more to businesses and entrepreneurs have to say	-,017	,032	,077	<b>,833</b>
q1.8 The companies could employ more people and produce more if they had not to pay a large amount of taxes	,040	,133	,125	<b>,784</b>

Table 7: Correlations between economic values

	Alienation	Support of the Economic System	Pro Business
Conservatism	0,368*	0,184*	0,006
Alienation	1	-0,029	0,137*
Support of the economic system		1	0,172*
Pro Business			1

$p < 0,001$

Table 8: Distribution of the four patterns

Patterns	N	%
Entrepreneurship	284	30.9
Consumerism	108	11.8
Economic nationalism	402	43.7
Stabilization	125	13.6
Total	919	100.0

Table 9: Crosses between the four patterns and indicators for the characterization

		Patterns							
		Entrepreneurship		Consumerism		Economic Nationalism		Stabilization	
		N	%	N	%	N	%	N	%
Cluster	Urban	99	34.9	42	38.9	151	37.6	56	44.8
	Rural Urban	107	37.7	14	13.0	136	33.8	27	21.6
	Rural	26	9.2	30	27.8	60	14.9	23	18.4
	Development	52	18.3	22	20.4	55	13.7	19	15.2
	<b>Total</b>	<b>284</b>	<b>100.0</b>	<b>108</b>	<b>100.0</b>	<b>402</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>
Gender	Femal	190	68.6	54	50.5	263	65.9	74	61.2
	Male	87	31.4	53	49.5	136	34.1	47	38.8
	<b>Total</b>	<b>277</b>	<b>100.0</b>	<b>107</b>	<b>100.0</b>	<b>399</b>	<b>100.0</b>	<b>121</b>	<b>100.0</b>
Age (groups)	<25	54	20.7	32	31.1	79	21.0	25	21.9
	25-34	114	43.7	36	35.0	150	39.8	50	43.9
	35-44	39	14.9	20	19.4	63	16.7	22	19.3
	45-54	37	14.2	11	10.7	47	12.5	8	7.0
	55-64	13	5.0	1	1.0	33	8.8	9	7.9
	>=65	4	1.5	3	2.9	5	1.3	0	.0
	<b>Total</b>	<b>261</b>	<b>100.0</b>	<b>103</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>
	Schooling	1 - 4 grade	18	6.5	8	7.5	27	6.8	5
5 – 6 grade		10	3.6	8	7.5	21	5.3	9	7.4
7 – 9 grade		43	15.5	24	22.4	74	18.7	26	21.5
10 – 12 grade		116	41.9	47	43.9	202	51.0	60	49.6
High school		82	29.6	16	15.0	61	15.4	20	16.5
MsC and PhD		8	2.9	4	3.7	11	2.8	1	.8
<b>Total</b>		<b>277</b>	<b>100.0</b>	<b>107</b>	<b>100.0</b>	<b>396</b>	<b>100.0</b>	<b>121</b>	<b>100.0</b>

Table 10: Crosses between patterns and economic values

	<i>P</i>
Conservatism * Patterns	F(3, 829) = 5,100 0,002
Alienation * Patterns	F(3, 856) = 4,707 0,003
Support of the economic system * Patterns	F(3, 870) = 4,085 0,007
Pro Business * Patterns	F(3, 866) = 7,124 0,000

Table 11: Economic values by cluster

Cluster of municipality		Conservatism	Alienation	Support of Economic System	Pro Business
Urban	Mean	<b>2,9691</b>	<b>3,5101</b>	<b>4,6797</b>	<b>5,4880</b>
	N	324	330	333	332
	Std. Deviation	1,09013	1,22291	1,22235	1,13905
Rural Urban	Mean	2,9645	3,5331	4,6619	5,7806
	N	265	277	282	278
	Std. Deviation	1,05160	1,18575	1,12098	,93877
Rural	Mean	3,2333	3,8179	4,9358	5,6131
	N	126	130	135	137
	Std. Deviation	1,12449	1,23131	1,12450	1,17572
Development	Mean	3,2358	4,0000	4,7535	5,3239
	N	134	143	142	142
	Std. Deviation	1,19141	1,38401	1,23686	1,31844
Total	Mean	<b>3,0490</b>	<b>3,6424</b>	<b>4,7246</b>	<b>5,5726</b>
	N	849	880	892	889
	Std. Deviation	1,10507	1,25255	1,18076	1,12810

## Appendix 2: Figures

Figure 1: Typology of parishes

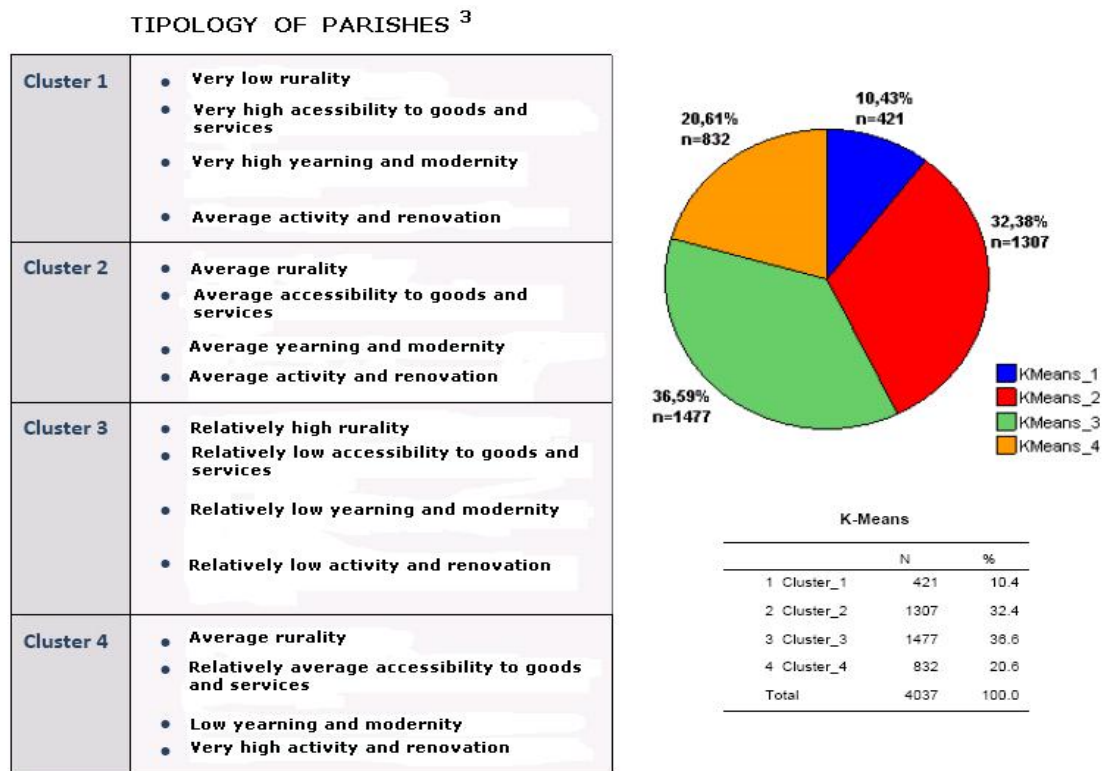




Figure 2: Absolute frequency of answers to the problem of fighting unemployment by the Government

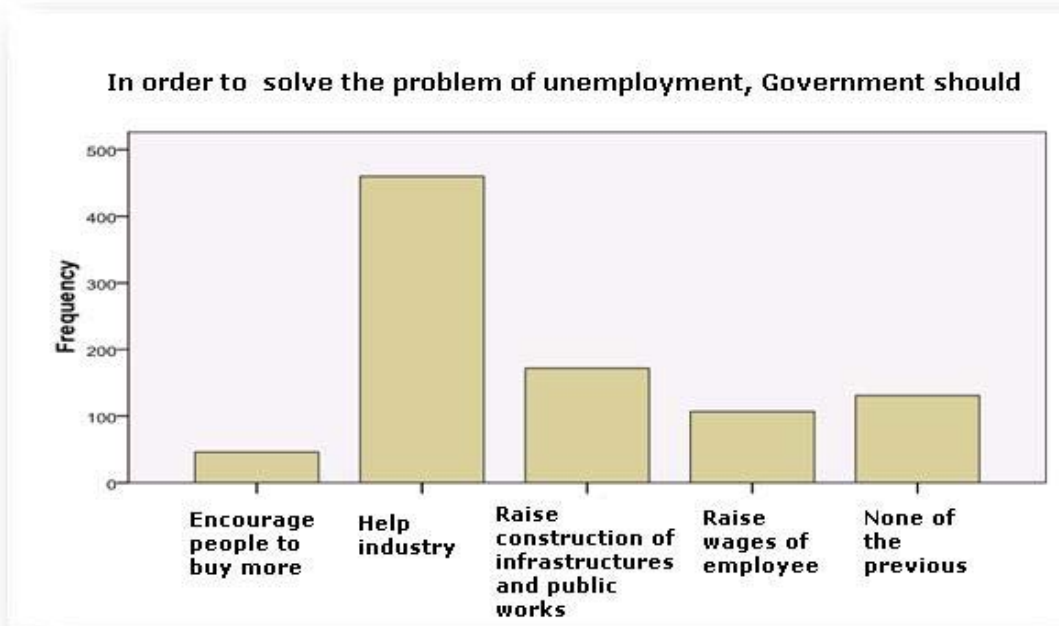


Figure 3: Absolute frequency of answers to the problem of fighting unemployment, as a Citizen

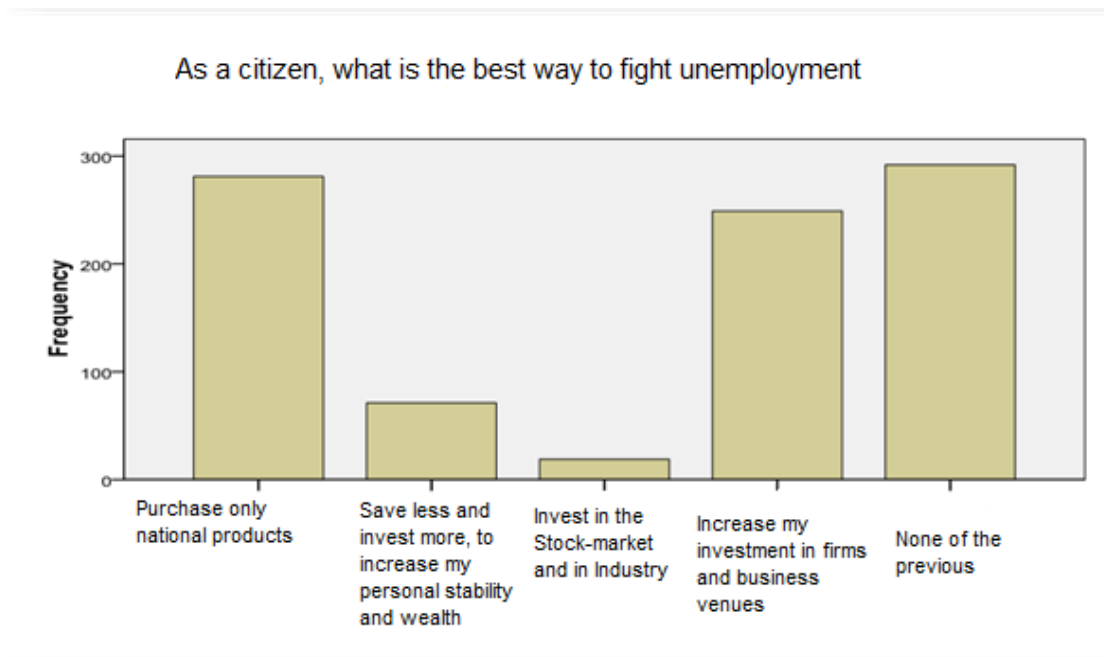


Figure 4: Absolute frequency of answers to “how do your savings affect unemployment?”

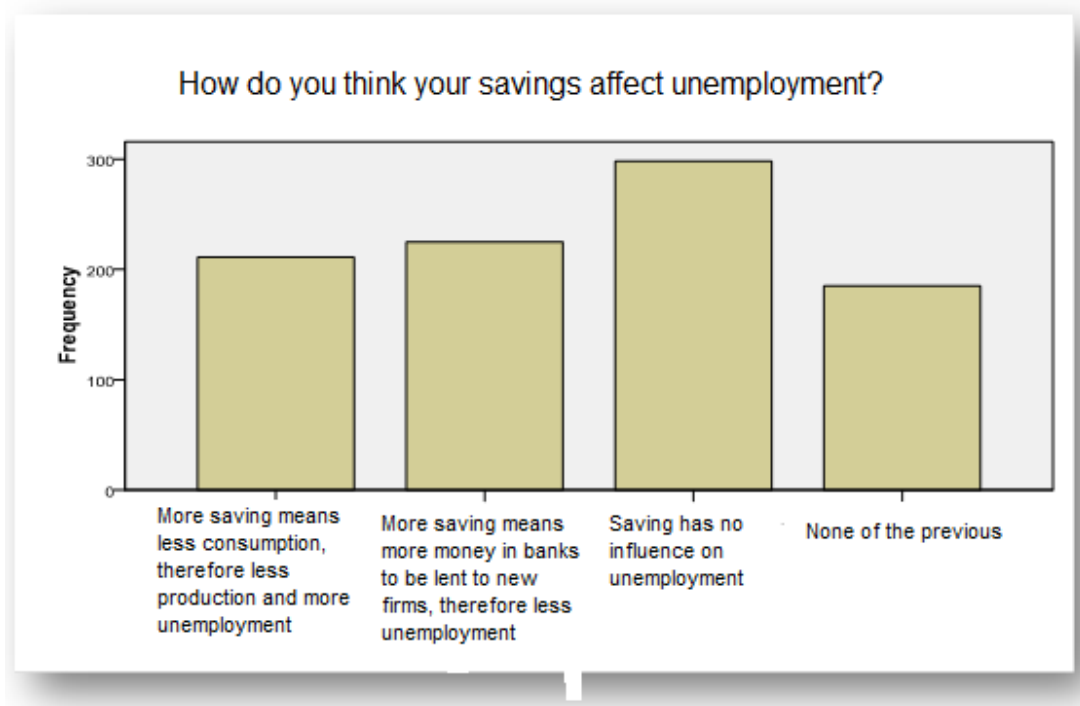


Figure 5: Absolute frequency of answers to the best way to fight inflation

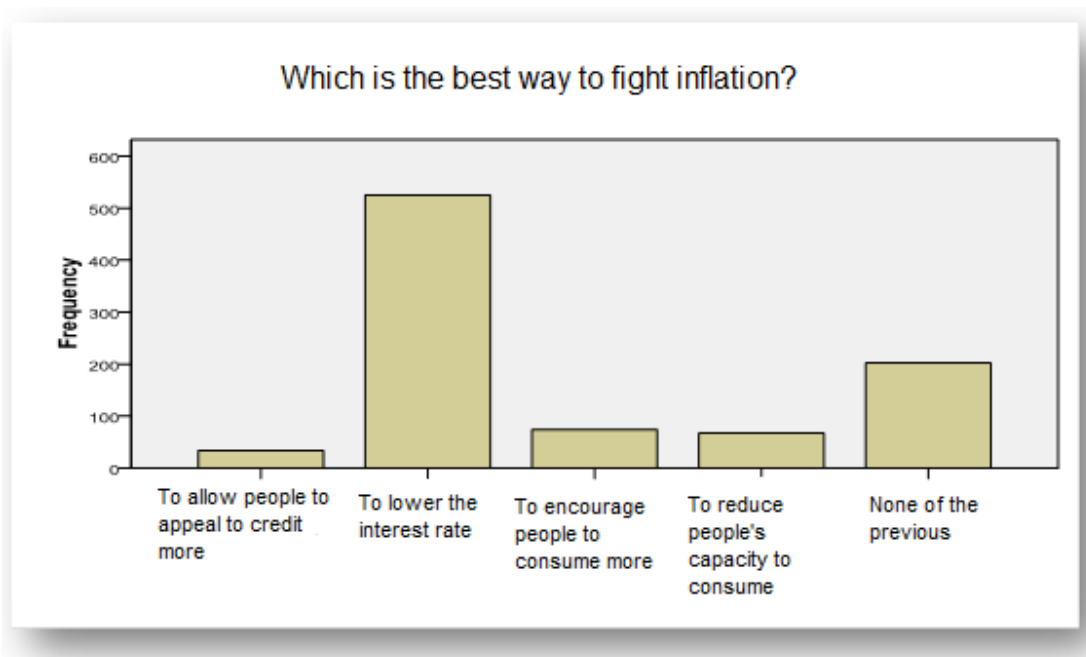


Figure 6: Absolute frequency of answers to what the government should do to improve the economic situation

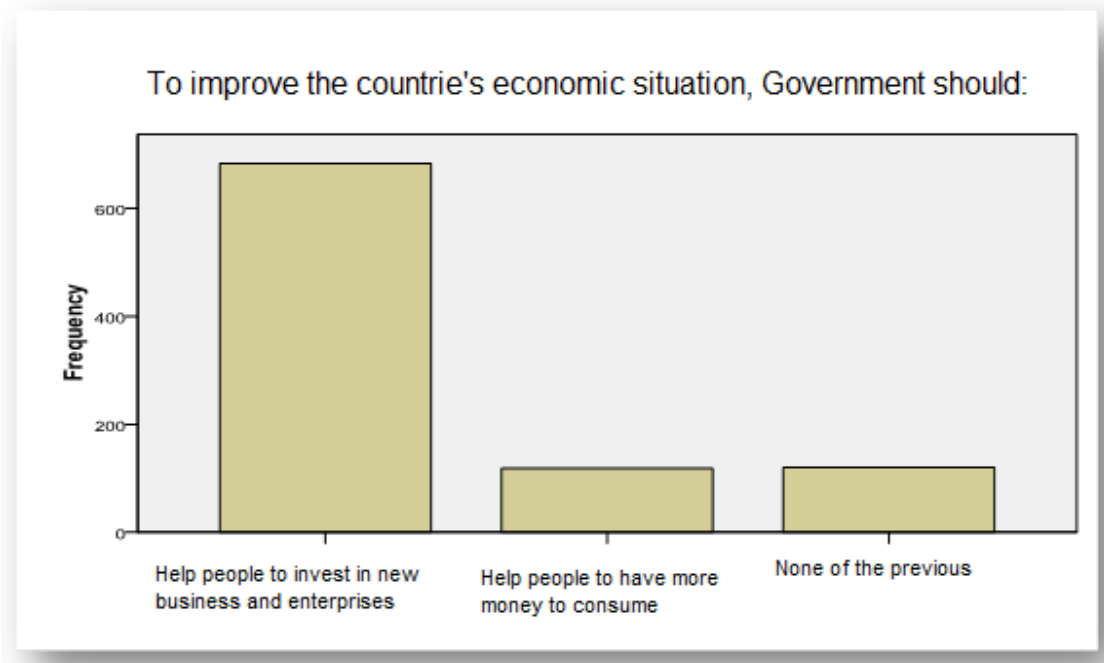


Figure 7: Absolute frequency of answers to the problem of the best way to fight unemployment as a citizen, by cluster

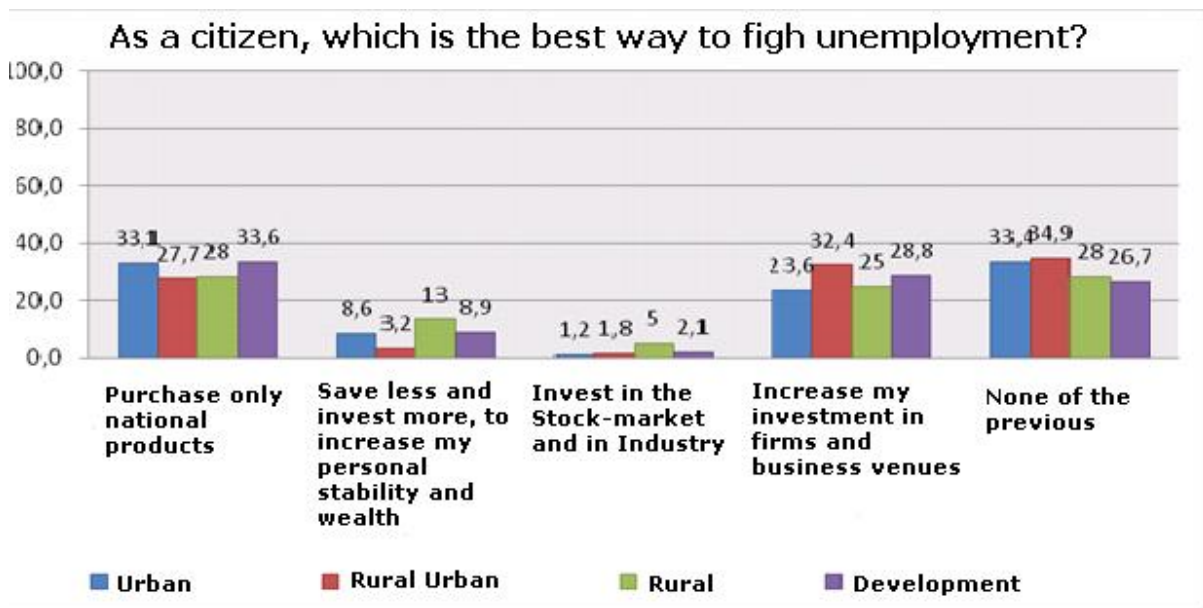


Figure 8: Absolute frequency of answers on the influence of savings in unemployment, by cluster

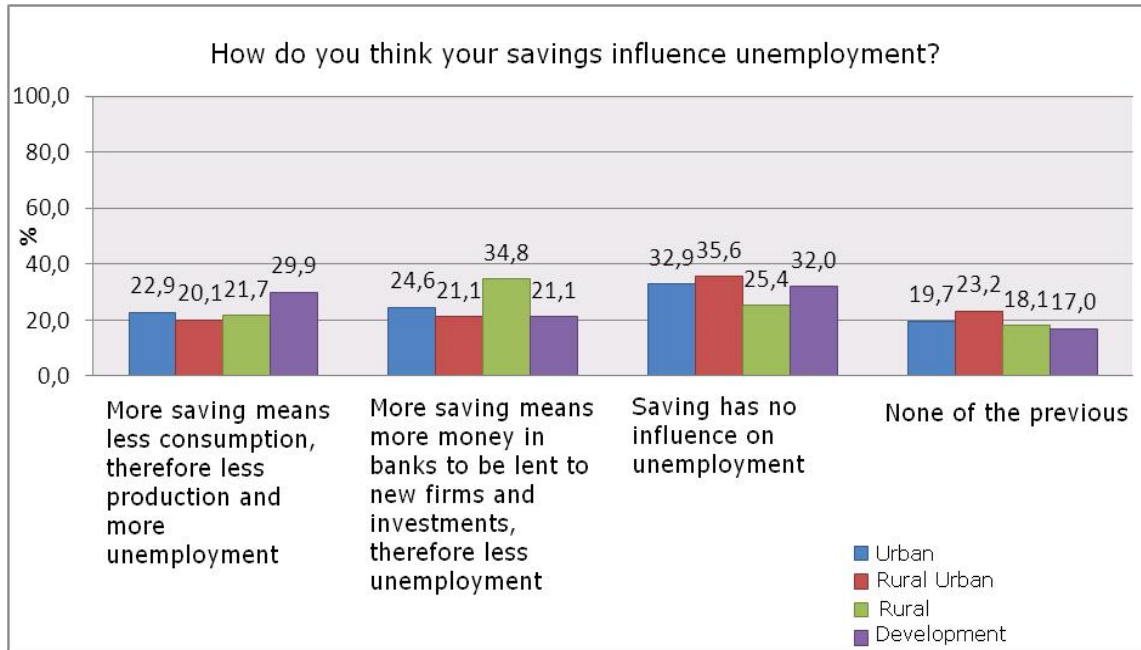


Figure 9: Absolute frequency of answers on the best way to fight inflation, by cluster

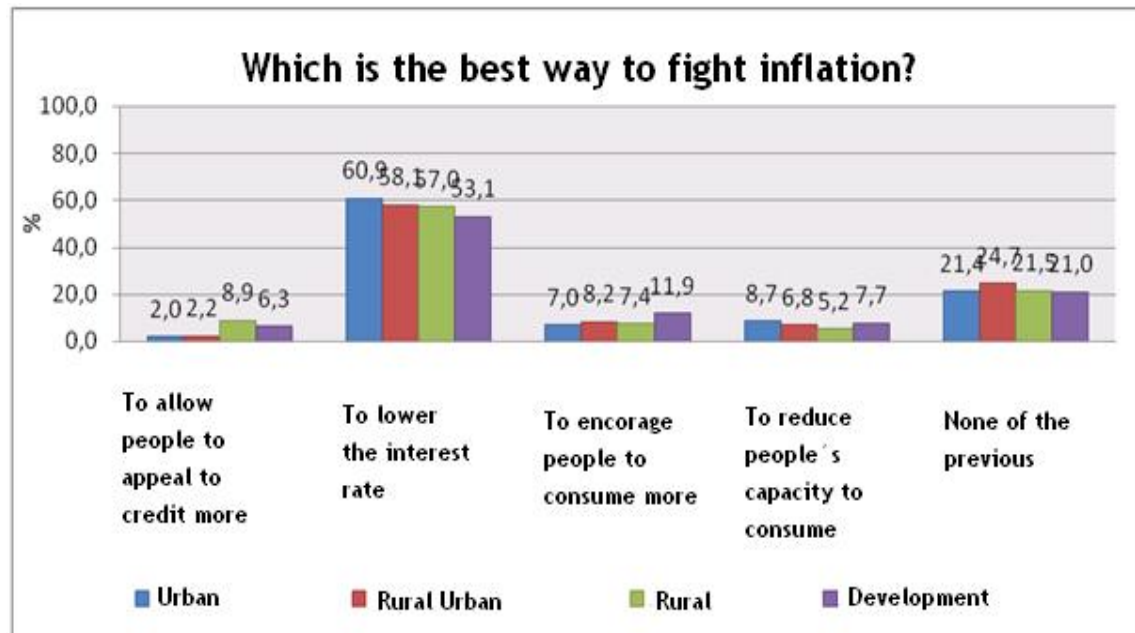


Figure 10: Absolute frequency of answers on Government influencing the country's situation, by cluster

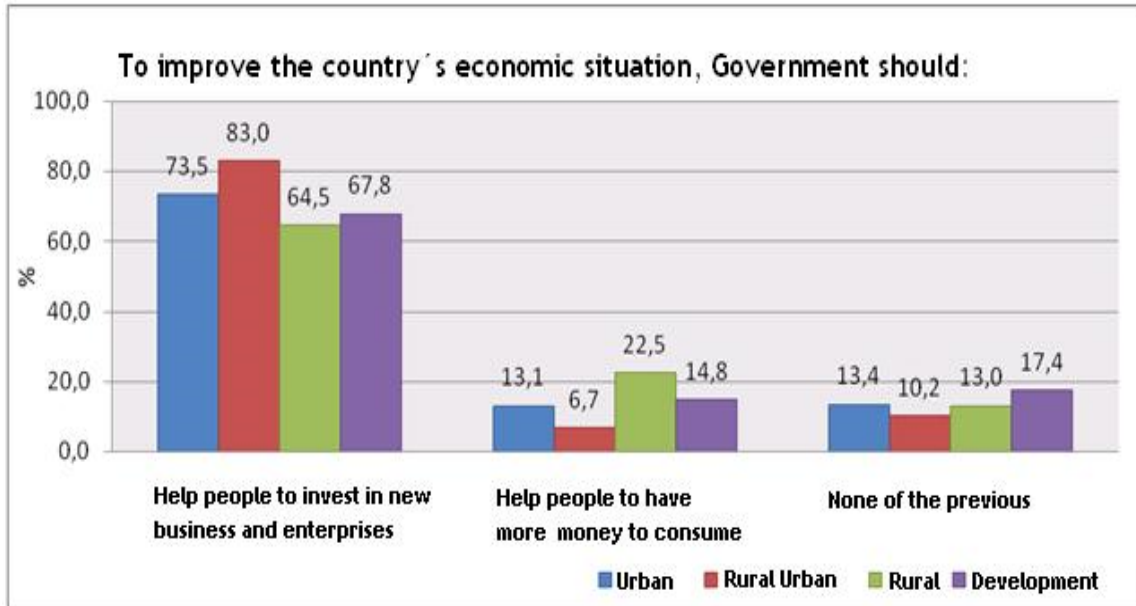


Figure 11: Economic behaviors by cluster

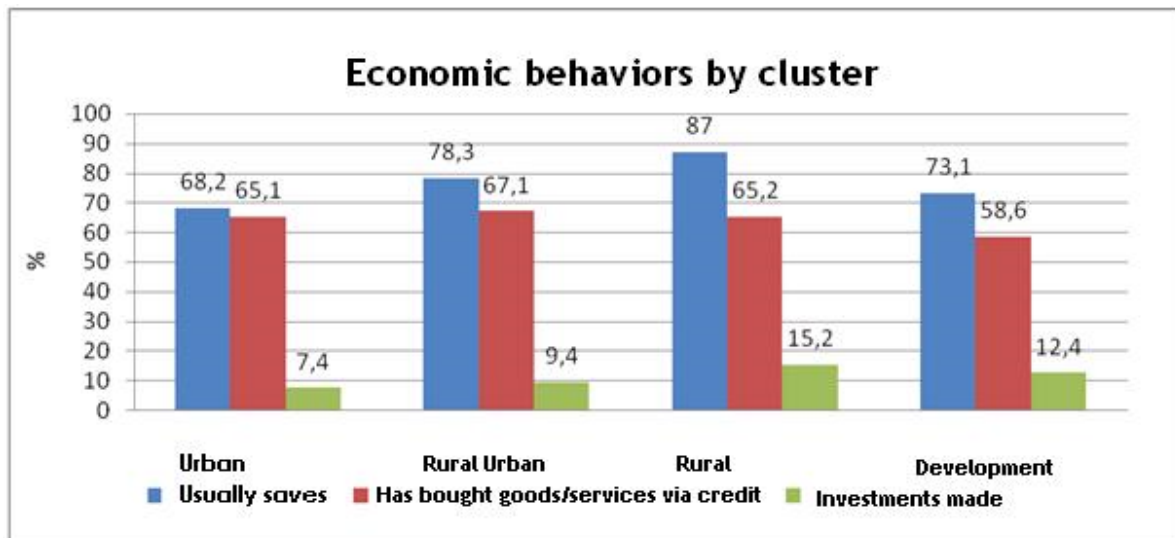


Figure 12: Savings behavior by municipality

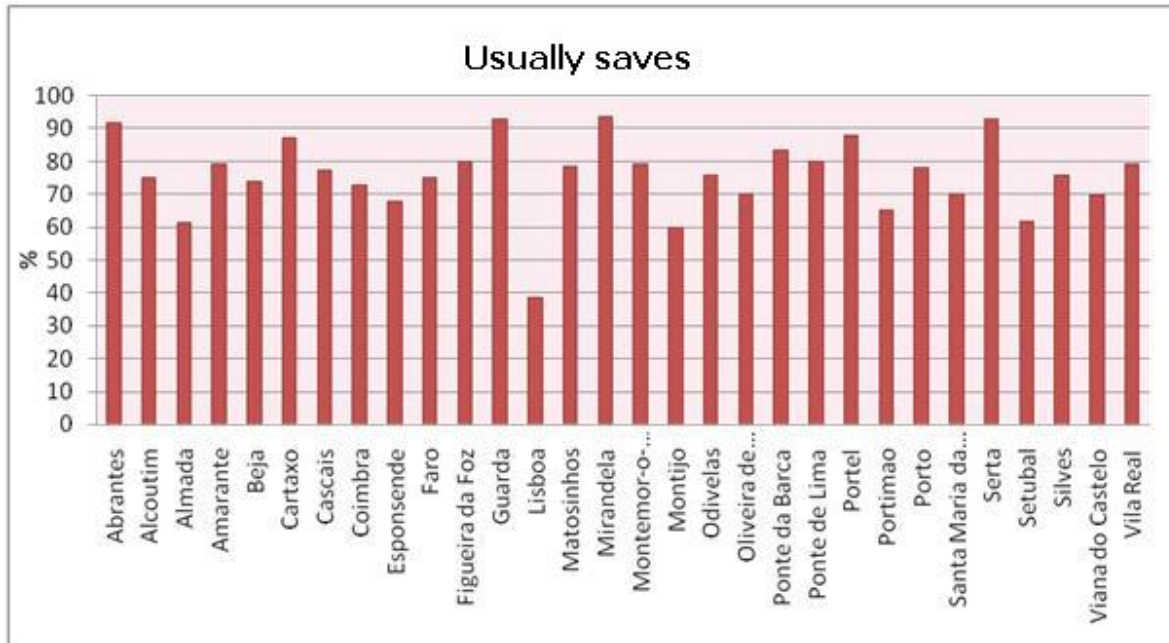


Figure 13: Credit behavior, by municipality

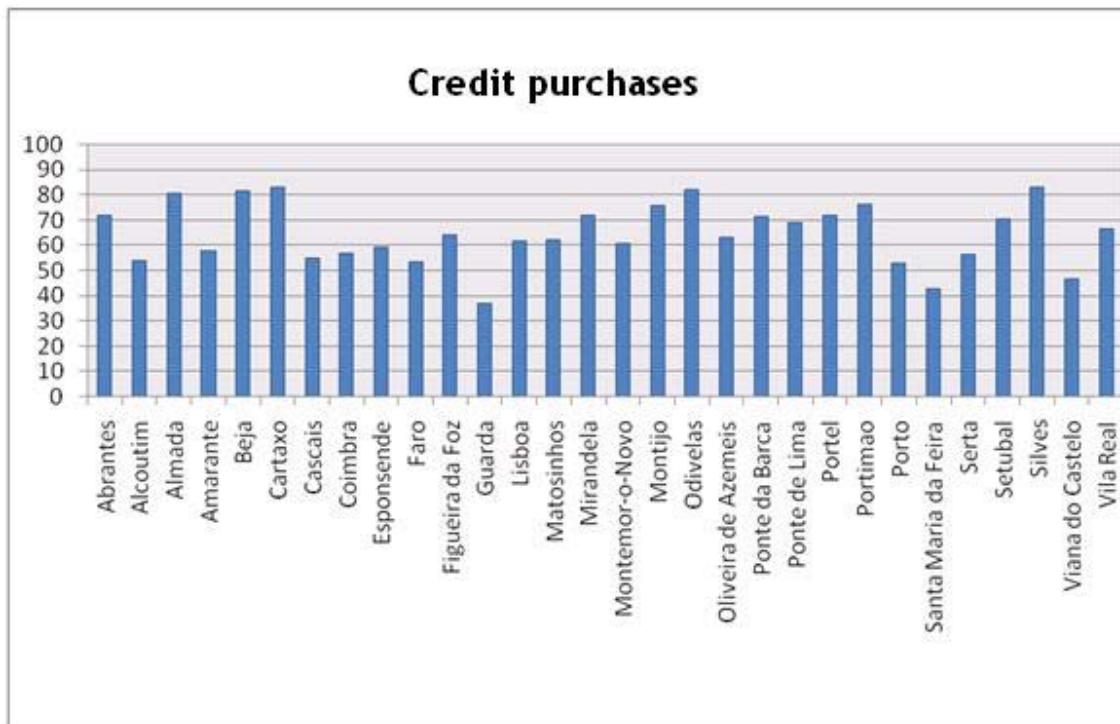


Figure 14: Economic patterns: profiles (Multiple Correspondence Analysis)

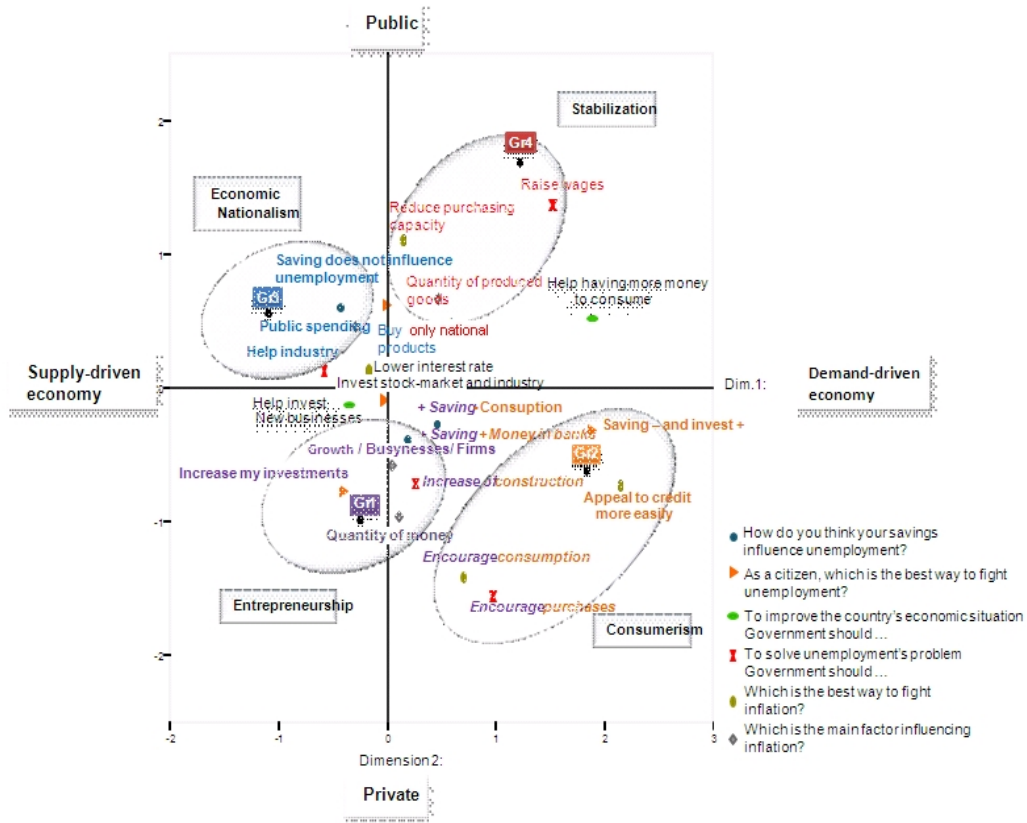


Figure 15: Association between economic patterns and types of counties (Simple Correspondence Analysis)

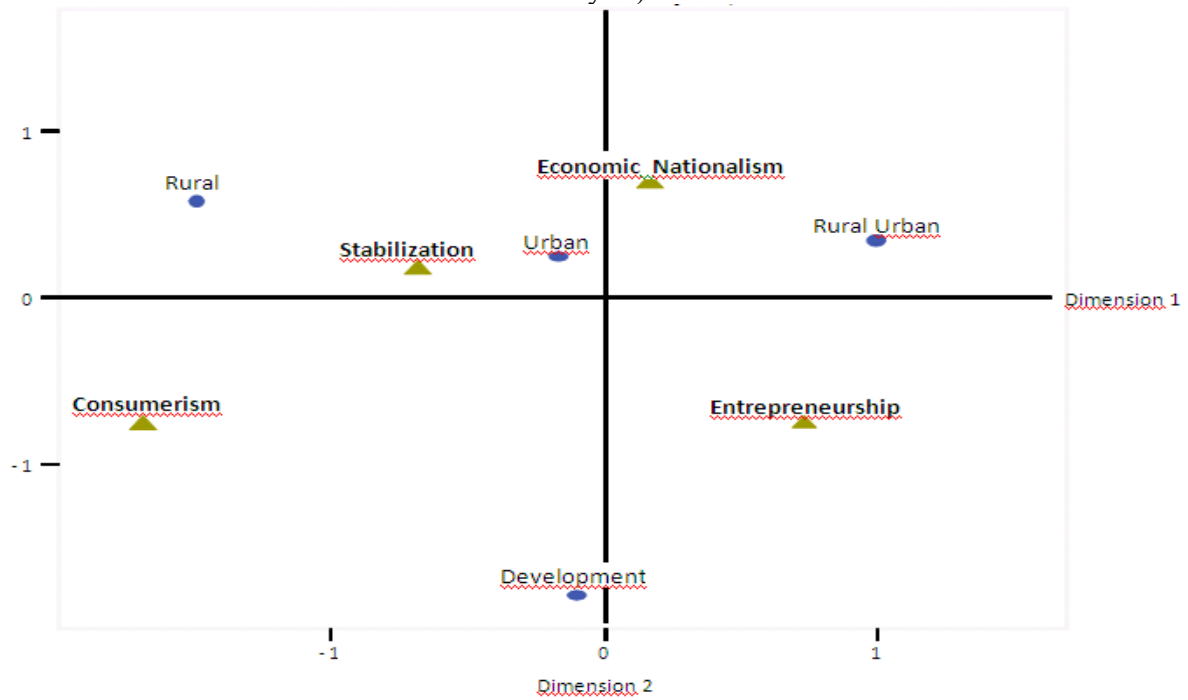


Figure 16: Average level of agreement in each economic value and standards

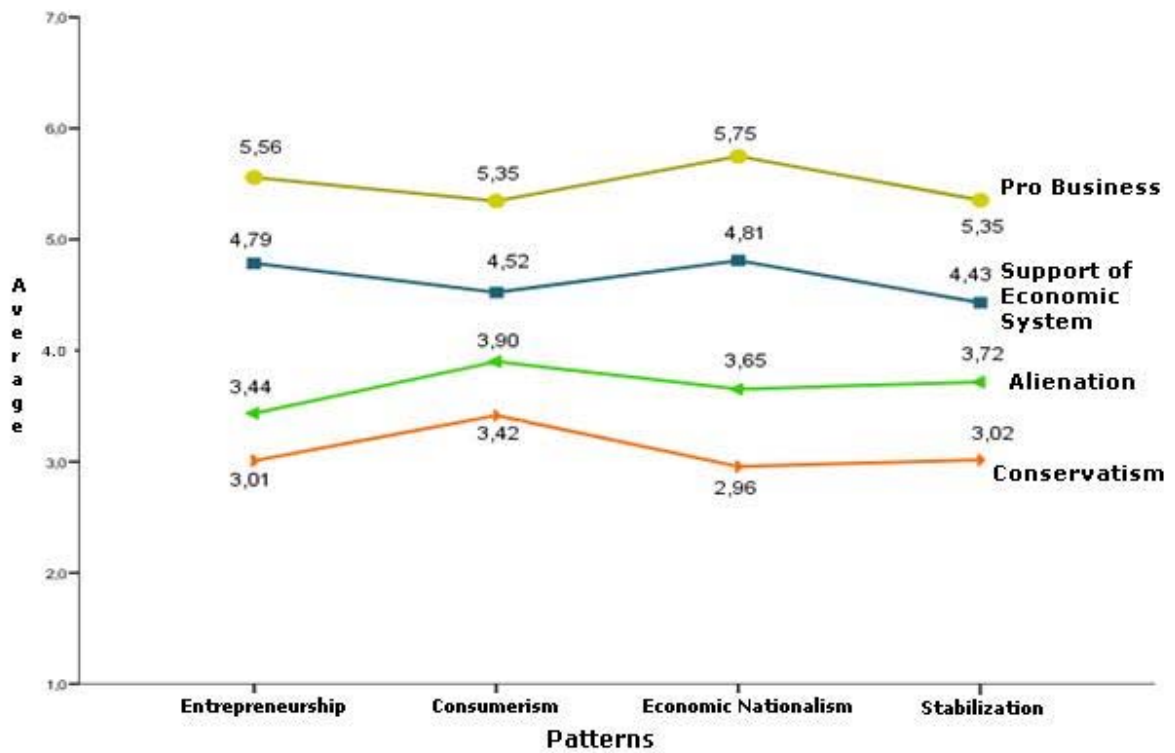




Figure 17: Model to test

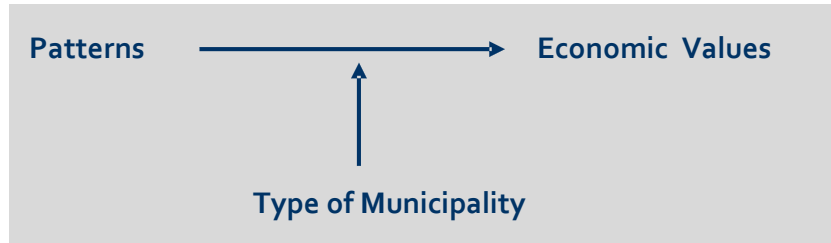


Figure 18: Average level of agreement with the economic value of the second standard economic conservatism, tempered by the typology of counties

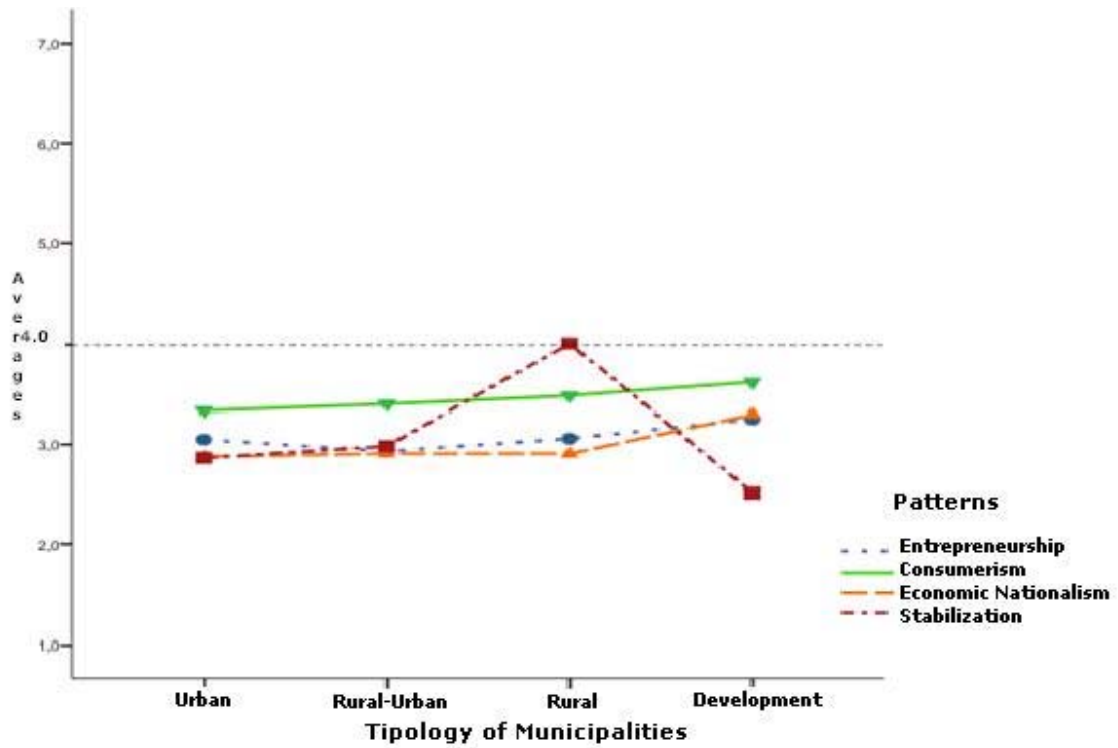


Figura 19: Average level of agreement with the pro-business economic value, according to economic standards, moderate by the typology of counties

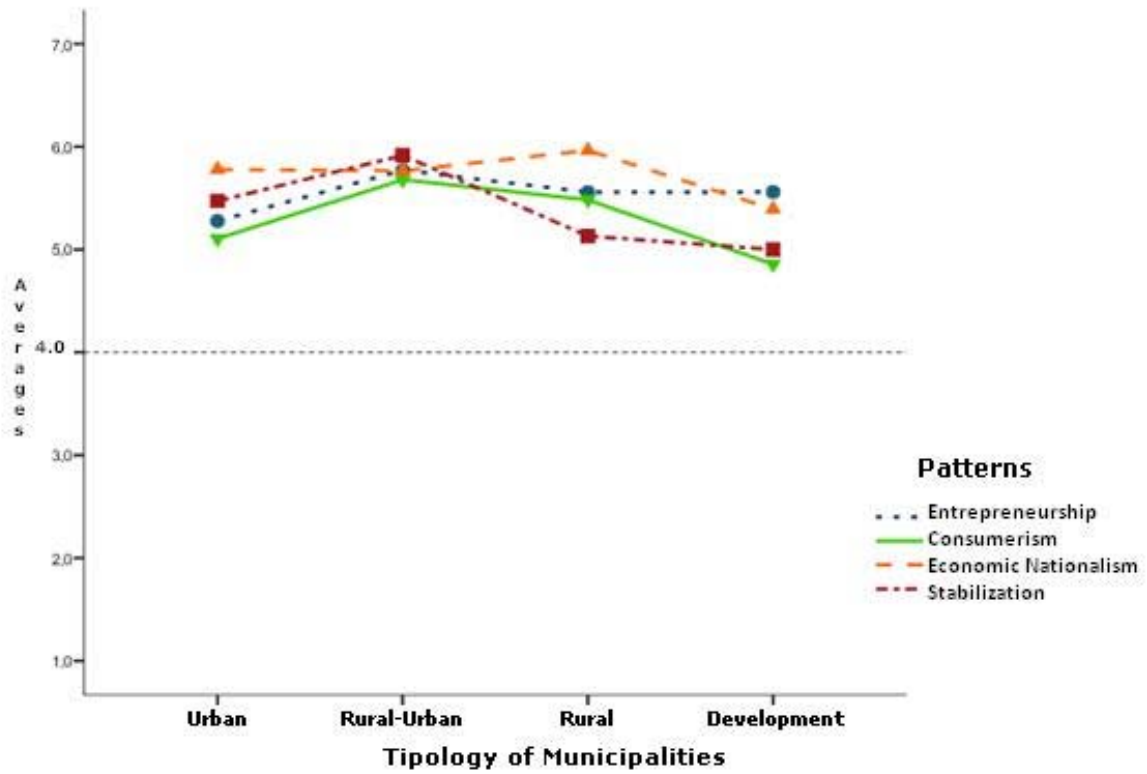


Figure 20: Association between economic values, patterns, economic behaviors and types of counties (Principal Component Analysis for Categorical Data (CatPCA))

