

# INFORMAL ECONOMY IN RURAL AREAS IN ROMANIA

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## **Abstract:**

*Before 1990, during the communist regime, informal economy which operates outside the formal sector was recognized. Moreover, since the early 90s the informal economy has become a problem for Romania including strictly economic activities that take place outside the legal framework, regarding to legislation. From 1999 to 2010, the size of informal economy contributes a high value in GDP of Romania which is around 34%- 37%. The informal economy in rural area has the largest labor force in agriculture which registers the instable and low income. Our paper uses statistical method and econometrics with linear model with Durbin- Watson test by software SPSS to observe the role of rural administration in informal economy in Romania. Public policies are implemented by administration should outline a model to transform informality to formality in the long-term objectives; furthermore, in building a competitive and strong local government involved the rural level.*

**Keyword:** *Informal economy, rural administration, local competitiveness.*

**JEL Classification:** *H83, O13.*

## **Introduction**

The literature states that since the informal economy have been “found” firstly by Keith Hart, during a research mission to Ghana, there are a variety of definition about this phenomena. In general, the informal economy comprises all economic activities outside the formal economy generating income, unregistered or partially recorded and expensed in the national income of a country. Moreover, dimension of informal economy is measured as the share of the informal economy in the official economy of a country, measured by GDP. In this paper, we addressed the informal economy strictly from the perspective of labor market. Thus, we observe the informal economy considered as an approach to labor issues including (Schneider, Buehn, 2012):

- Self-employment in their businesses: workers in small unregistered include: employers, own accountants and unpaid labor belonging usually to the family;
- Hiring jobs illegally, without payment of social contributions from wages: workers without official jobs or welfare benefits working for companies including employees are formal or informal of informal enterprises: other informal workers, consist of:

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- Laborers or seasonal workers;
- Labor at home;
- Employees unregistered;
- Some temporary or part-time employees (temporary and part-time employees covered by labor legislation and social protection benefits are not included in the informal economy) homeworkers.

This paper aims to analyze the role of informal economy in rural in Romania, besides, highlight its contribution to a huge value in the economy. We identify the value of the informal economy based on appropriate public policies and an efficient public administration, is to transform rural informality to formality, favoring the development and competitiveness. Based on this, the paper is divided into four main points:

- Analyzing the informal economy in Romania in the period 1999 - 2010 and emphasizing its value prediction from 2011 to 2018. Furthermore, public administration has an important role in informal sector in rural areas. In addition, regarding analysis of principal factors showing their influence on the size of informal economy;

- In particular, from the point of view of the labor market, the share of the informal sector in Romania is much higher in rural areas compared to urban areas, even though the labor force employed in rural areas is lower than in urban areas. They analyze the informal economy in rural areas in Romania and its size causes induced high and superior performance influences on rural public administration;

- Identifying a possible model of public administration in rural areas to transform informality into formal economy;

- The final part outlines the conclusion about the role of public policies should be supported by government in the informal economy in rural areas.

### **Methodology**

This paper uses statistical method to measure the size of the informal economy, the share of GDP (%) from 1999 to 2010 and is calculated by the method MIMICS (Multiple-Indicator Multiple-Cause) (Wooldridge, 2002).

In addition, we use the econometric model using SPSS software to measure the informal economy in Romania, and the role of public policy and public administration performance. It comprises of (Gujarati, Porter, 2009):

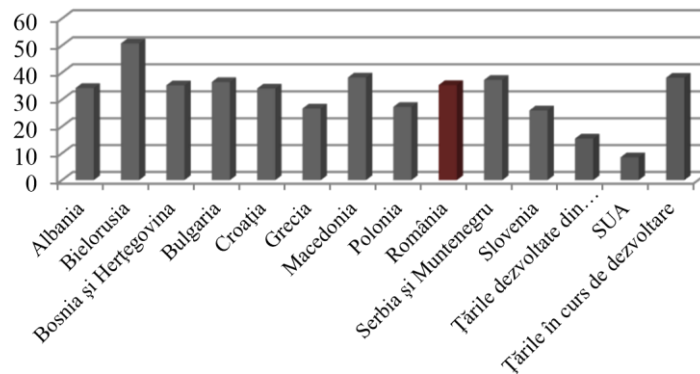
- Regression testing estimate and forecast the trend curve of informal economy;

- The linear test combines with Durbin-Watson test, and the analysis considers the period 1999-2010 for the five countries of South Eastern Europe, which have similar characteristics in the informal side. The aim is to measure the level of execution of the factors considered to impact on the informal economy.

### **1. Measure the informal economy in Romania**

Before 1990, during the communist regime, the informal economy which operates outside the formal economy was recognized. Moreover, in the early 90s, the informal economy has become an issue in Romania. The main causes are institutional and structural change in transitional economy induced unregistered economic activities. In this circumstance, the share of the economic sector was not covered by statistical or administrative sources, thus, its size is becoming larger. Based on the application of the model MIMICS (Multiple-Indicator Multiple-Cause), the size of the informal economy (%)

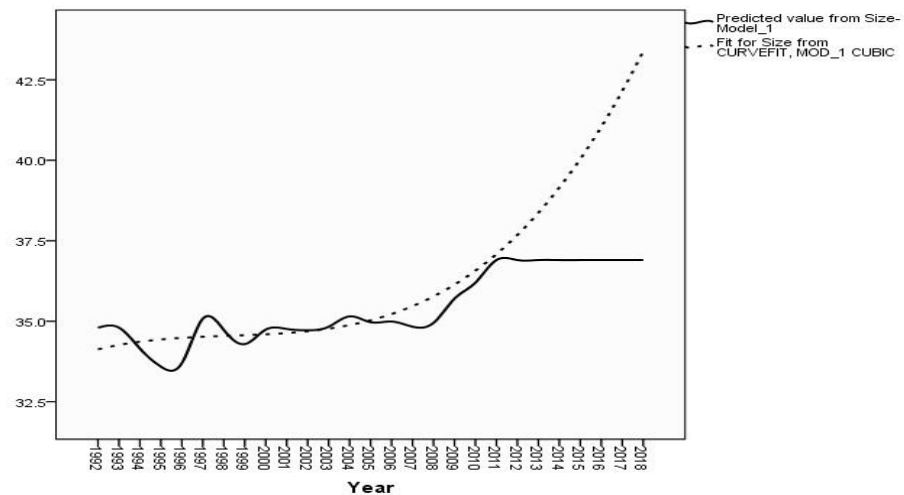
share of GDP) in Romania expresses the value of labor compared with other countries (Fig. 1):



**Fig 1. The size of informal economy in Romania compares with Western countries, the U.S. and developing countries in 2004 -2005**

Source: *International Institute for Labor Studies and World Trade Organization report about informal economy (2012)*

Regarding the size of the hidden economy, we may say that the informal economy in Romania contributes a high value (above 30%) as much as developing countries, while developed countries in Europe and the U.S. are lower (less than 12%). Moreover, we apply SPSS time series, the idea of determining the values of the hidden economy and value trend during period 2011-2018. From the graphs below, it is obvious that the size of the informal economy is increasing in period 2011 - 2018 and that have a high expected value in 2011 of 36.9% of GDP equivalent.



**Fig 2. The trend of the informal economy and the expected value in Romania during period 2011-2018.**

Source: *Own calculations based on data from source- International Institute for Labor Studies and World Trade Organization report about informal economy (2012).*

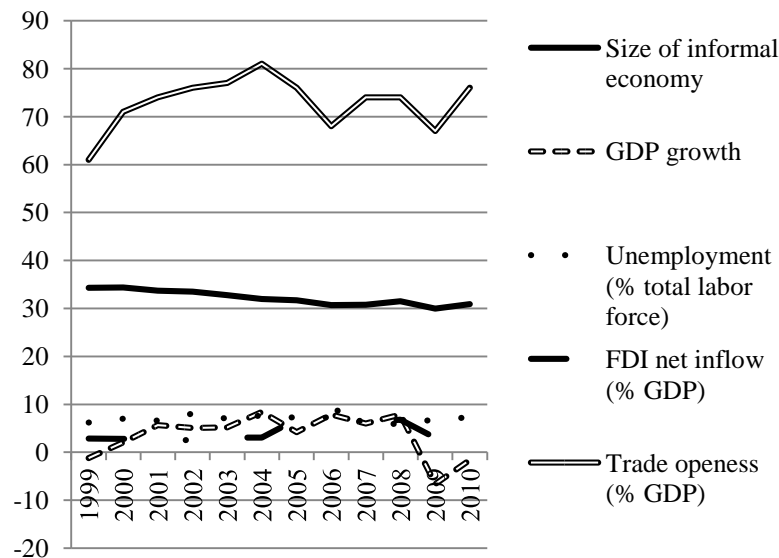
Therefore, it is vital that government should recognize it and organize obviously principal factors of management in public administration, how large are the economic resources that Romania uses in reality compared to the database recorded in official

documents. In addition, according to the report of the project- Sectorial Operational Programme Human Resources Development 2007 – 2013 from the European Social Fund implemented by the National Trade Union Bloc (2011), shows that in fact, if all employees in the informal economy move into the formal economy, the employment rate would increase by 45% which is from 30% in recent to 75%, the threshold imposed by the European Strategy 2020 and assumed by Romania. Also, budget revenues (strictly the income taxes, social contributions) would increase by nearly 6% of GDP per year, ensuring full fiscal space needed for investment and financing pension and health budgets.

### The role of public administration in informal economy The external factors

External factors such as the rate of GDP growth, unemployment, net FDI flows, trade openness show up the direct effects of globalization, integration and the indirect effects of public policy and public administration’s performance on the size of the informal economy.

On the other hand, the size of the informal economy in Romania figures an effect of globalization, integration, public policy and government performance in the period 1999 - 2000 and remains a high value.



**Fig 3. Macroeconomic indicators and the size of the informal economy in Romania during 1999-2010**

Source: Worldbank.org, International Institute for Labor Studies and World Trade Organization report about informal economy (2012).

Evolution of the values of the informal economy in Romania during 1999-2010 oscillate within a small range from 32% to 37%. At the same time, other indicators have changed along with the economic cycle. Especially during the crisis of 2008 - 2009, economic indicators have fallen and unemployment rates increased in contrast to its size still kept a high contribution, around 36%. However, it is undeniable that these indicators took a part in influence on the dimension of the informal sector, moreover, it is demonstrated by test and linear model (SPSS) with the Durbin-Watson test for time series from 1999 to 2010, applied to the group of five countries that have value hidden economy higher than 30%, countries from South Eastern Europe indicated in table nr.1 in which the size of the informal economy is the dependent variable.

**Table nr. 1 - Test linear model with Durbin-Watson model for the size of the informal economy that is dependent on other indicators which are independent variables**

Coefficients <sup>a</sup>						Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error					Beta	B			
1	(Constant)	.317	.199		1.591	.017	(Constant)	2.814	.508		5.542
	logGD Pgr	.009	.006	.090	1.492	.001	logtrade	-.209	.040	-.550	-5.215
	logUn	.020	.043	.027	.466	.003	logFDI	.012	.005	.179	2.458
	logsize1	.912	.060	.924	15.320	.000	logsize1	.411	.101	.440	4.073

a. Dependent Variable: logsize

Source: Own calculation based on data from Worldbank.org, International Institute for Labor Studies and World Trade Organization report about informal economy (2012).

Therefore, regarding the results from these tests and all above, we indicate that not only Romanian government should identify the value of informal sector but also they should use these factors to transform informal sector to formality which is a solution for Romanian economy to recover aftermath crisis. Furthermore, in Romanian context, in terms of the informal sector, rural areas contribute the worth value, likewise, it is a challenge to public administration in order to reform this sector into a competitive, efficient and transparent area.

### The internal factors

The internal factors include taxes and social contributions. Conform to test of linear model, it estimates that social security contributions have a positive relationship with the size of the informal economy. Obviously, if social security contributions increased by 1%, the size of the informal economy increases by 0.24%.

**Table nr. 2 - Test linear model with model Durbin-Watson for the variable size of the informal economy that is dependent on other internal indicators which are independent variables**

Coefficients <sup>a</sup>						Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error					Beta	B			
1	(Constant)	2.594	.389		6.668	.000	(Constant)	3.809	.059		64.372
	Log_soical_contribution	.242	.107	.581	2.256	.048	Log_corruption	.132	.023	.876	5.752

a. Dependent Variable: logsizeinformal

Source: Own calculation based on data from Worldbank.org, International Institute for Labor Studies and World Trade Organization report about informal economy (2012)

There is no doubt that public administration and government performance have a moderate impact on the informal economy in Romania. Moreover, due to the effects of globalization, integration and changes in government, the size of the informal economy still has a high value and decreased slightly from 1999 to 2010. Performance of public administration and public policies have an important role in the economy informal, hence, they need a specific plan and a reality that directly influence economy, and reduce the value of the informal economy.

## 2. Informal labor in the informal economy in rural Romania

### The size of the informal economy in rural areas in terms of labor

Although total employment in urban (5.122 million people) is higher than in rural areas (4.117 million people), the above chart indicates that 28% of the rural labor work in the informal sector, and is two times higher than in urban areas (13%). Addressing the issues of labor in the informal sector in rural areas is needed to identify ways to promote competitiveness.

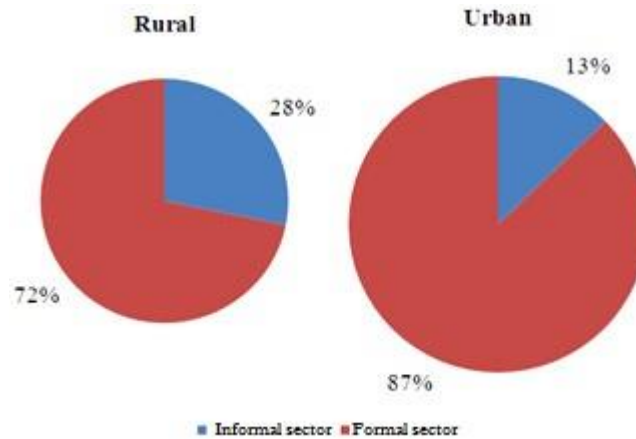


Fig 4. Share of employment work in informal and formal sector in Romania in 2011 in term of rural and urban (%)

Source: Report from National Trade Union, 2011.

### Differences between the informal economy in rural and urban areas in Romania

In Romania, almost half of the population lives in rural areas (Otiman, 2000) and over 44% of the active population is engaged in agriculture (European Commission, 2004). Over 80% of agricultural land, 10 million hectares distributed to 4.2 million farms with an average size of 2.4 ha (OECD, 2002). So there is reason to believe that the role of the informal economy in rural areas is important and different from urban areas of Romania. Most of these differences are related to the access to resources interchangeable.

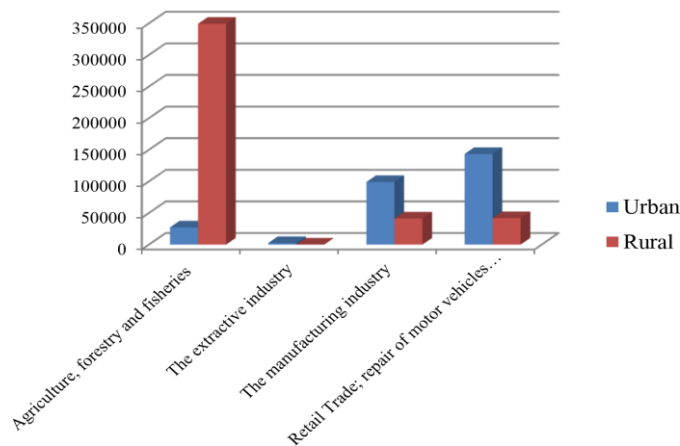
To participate in the informal economy, they need access to productive resources. People live in rural areas are more likely to have entry to resources such as land, workspace and the tools that make sharing possible and efficiency. The European Charter, rural area is defined as one that is used for:

- Agriculture, forestry and fishing;
- Economic and cultural activities (industry, services);
- Other activities.

The below chart measures the unemployment in the informal sector in urban and rural areas in Romania. Hence, from the point of view of the informal sector based on differences in resources, the largest rural activity is agriculture and forestry, meanwhile, the extractive and manufacturing industry are activities performed by the urban population, mainly in rural population having insignificant contribution.

In terms of labor in the informal sector in rural areas, the highest share in total employment is held by farmers and skilled workers in agriculture. Of those who said they

were self-employed and unpaid family workers, 90.1% lived in rural areas, which means that farming is their main job.

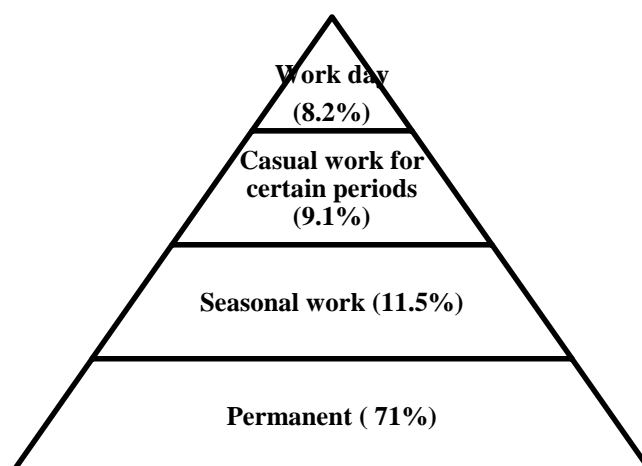


**Fig 5. Employment in rural and urban informal sector in Romania in 2011 (persons) in the activities of the national economy**

*Source: Report of the National Trade Union Bloc 2011.*

### Characteristics of the informal economy in rural areas

We approach the informal economy strictly in terms of employment. Rural labor market in Romania is dominated, therefore, classified as manual occupations - farmers and craftsmen with a great deal of active people engaged in subsistence economy and thus decoupled from the mechanisms of the market economy. Hence, we consider issues such as those shown in the below chart:



**Fig 6. Segmenting the employment in the informal economy in Romania in 2011**

*Source: Marilyn Carr, Martha A.Chen (2001), "Globalization and the informal economy: how global trade and investment impact on working poor", Women and Informal Employment Globalizing and Organizing.*

In terms of the informal economy in Romania in rural areas, there is 95% of the workforce which is employed in the informal sector, the agricultural sector in rural areas.

Thus, conform to the large influence of the hidden sector on the agricultural sector, the information given were analyzed excluded the labor component who work in nonagricultural activities such as the dominant construction, trade and manufacturing. Besides, in Romania, agriculture is the most representative work in this area, families cultivating small pieces of land, especially its production, but also partly for sale on the market. Other examples of informal sector in lower level are the contribution in family workers and helping in the household or small business. In addition, post-communist government in 1991 decided to implement the land reform to former owners. This reform changed the average size of firms (Vidican, 2004) and has led to increased layoffs. They largely influenced on the agriculture. Moreover, all landowners were made eligible for unemployment benefits, which could also work in informal sector. On the other hand, normally, the fees are paid for this type of activity, but were not employed by a registered employment agreement therefore, they are not paid social security contributions. In rural areas, informal economy, quantified on empirical base, it is: starting from a low formal income per person (the willingness to participate in informal activities is highest), as formal income increases (it is the average income per person in the household), household tends to increase further informal income in absolute terms, but at the same time the share of informal income in total income tends to diminish (for very poor and poor households, this proportion decreases rapidly first , until formal income scale, reaching an average reasonable, then, for households has a theoretical argument. Thereby, the main reason that the rich could be involved in the informal economy is provided by the attempt to avoid a certain proportion of the fees, according to their optimization strategies, like any rational agent.

There are a variety reason to cause the increasing value of informal sector, likewise, taxes are high, and the complexity of time-consuming administrative procedures, which are the two main reasons why workforce chose to come as part of the informal sector. According to OECD report (2008), in Romania, the effect of personal income tax, indirect taxes, duties and tax affairs policies effect significantly on the growth of the hidden economy. Particularly, the largest 24.5% indirect taxes affect the size of the formal economy. Moreover, policies should be designed properly to take into account the characteristics of the informal sector.

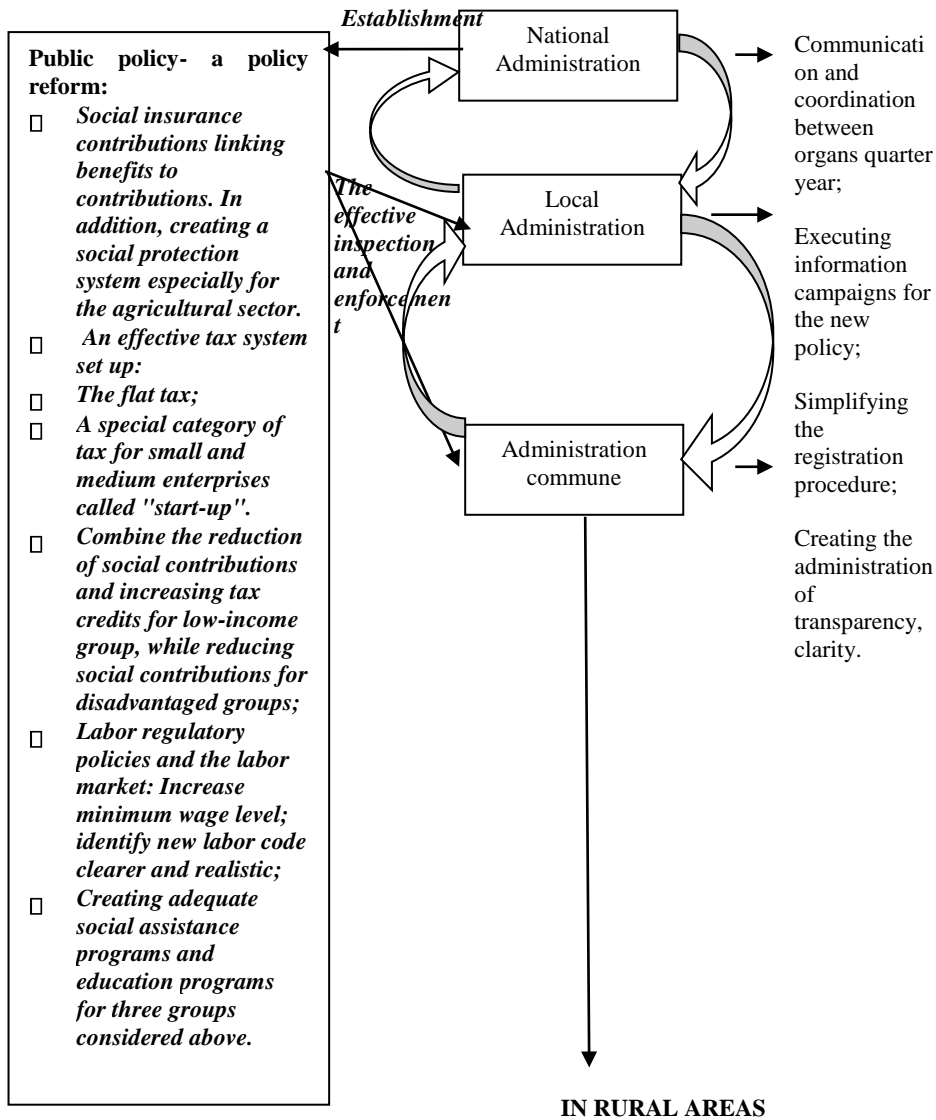
### **3. Analysis of effective public administration system in the informal economy in rural areas.**

Report of the informal economy on employment in Romania (OECD, 2008) shows that informal employment is a major issue, with implications for the lives of workers and the overall economy and for government policies and strategies. Furthermore, the Romanian government has shown an interest in combating undeclared work because of its destructive consequences of taxation. Hence, we need a model of public administration in rural areas to stimulate formal versus informal sector.

Additionally, the results obtain by applying the linear model, and according to some political experts, there is a general view that economic growth on its own will automatically maintain the high value of informality. This point of view is that fiscal and labor should address informality.

Finally, on all the above observations, we consider to build a model of public administration in following:





A KEY TO DEVELOPING

✓ REDUCE THE INFORMAL

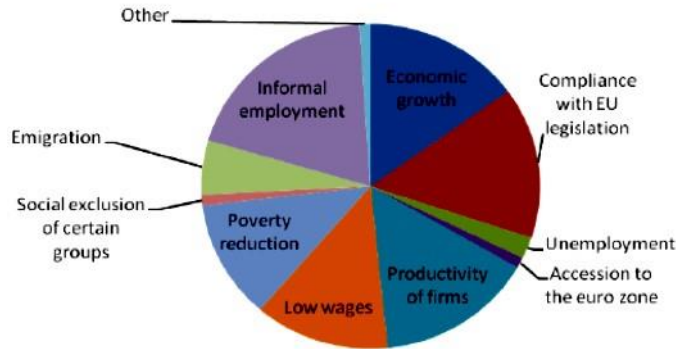
EFFECTIVE RURAL AREAS IN ROMANIA, PARTICULARLY, IN ← ✓ SECTOR ACTIVITIES;

INCREASE THE VALUE IN AGRICULTURAL SECTOR

FORMAL SECTOR;

Fig 8. The public administration in Romania to solve the problem of the informal economy in rural areas

It should be noted that there is no single policy that would reduce employment in the informal sector in rural areas and provide incentives for all types of people working informally to get a formal job. Therefore, it requires a combination of policies to meet the needs of the following three different groups of labor in the informal economy in rural areas.



**Fig 7. Principal challenges of public policies for Romanian government in recent years**

*Source: Report about informal economy in term of labor in Romania from OECD (2008).*

Firstly, for policies to be effective, they should distinguish different types of informality and adapt to the specific needs of different groups of stakeholders:

- The first group consists of the poor and vulnerable persons, who are part of the informal economy because they have no other options. This is necessary to provide security and basic support and encourage school attendance, for example through subsidies.
- The second group consists of those employed informally (either by choice or not), but have the potential to move to formal employment. It is important to give them the essential skills, information, and employment opportunities for internal migration. In addition, improving the public-private partnerships and promoting job creation through private sector development could prove useful in bringing them into the category of labor law.
- The third group are those who choose to be part of the informal sector, but may return in the formal sector.

Based on the previous analysis we can identify six main policy areas that may impact on employment in the informal sector in rural areas, either directly or indirectly:

- Taxes and social security contributions.

Simplifying the tax system is a major political reform that it could have an impact on informal employment. In Romania, the creation of a single administrative agency, the National Agency for Fiscal Administration, the only agency responsible for collecting contributions, made the most important step in this direction. In addition, establish a social protection system appropriate a relation benefits and contributions that will become an effective way of reducing the informal sector in rural context in Romania. An example of application of this system is Hungary, where they were reduced social contributions for employment and taxes for low earners, introduced in 2003 (OECD), and a further 50% reduction in social security for employees who are classified in a disadvantaged group such as the above first group or second group. Moreover, the quality of public services financed by taxation should prove to workers who can see the clear benefits from their contributions. Finally, information campaigns should be used to create the peer pressure to tax compliance and inform citizens about the benefits of formal work and effects payment of taxes and contributions.

- Regulatory policies on labor market

Increasing the minimum wage would reduce the scope for informal employment. The minimum wage in Romania increased and the method of setting minimum wage has changed. A recent reform has been introduced to address this problem. In 2007, they introduced a system of minimum wage based levels of education. In addition, the new labor

code was adopted in Romania in 2003 introduced significant changes to labor contracts part-time and fixed-term contracts.

- Institutions and Governance

Culture and traditional norms play an important role in how people perceive taxes and social contributions. The reform of the legal framework to reduce the tax burden that is an important step. Local government has an increasing role in establishing the tax through the autonomy principle, became an important interventionist actor in rural economy (Bercu et al., 2015).

- Social assistance programs

Social assistance programs are the programs in order to expand coverage to those are without health insurance. As an example, the guaranteed minimum income in Romania is a way of discouraging labor and economy, finding a job in the formal economy.

- Policy coherence and coordination

So far, between ministries and governmental agencies can be said that there was weak communication and coordination. This has led to some inconsistencies in the implementation of public policies and objectives damage various political actors. It is necessary to create more opportunities for dialogue and communication between ministries and institutions and social partners. Additionally, establish a working group to discuss these issues and make joint decisions would be an important step.

### **Conclusion**

Based on the analysis in this paper, we indicate the role of the informal economy in Romania. It contributes the significant value not only in urban areas but also, specially, in rural context. Most employment in the rural informal sector is involved in agriculture, using weak knowledge and skills, and income. On the one hand, causes maintain the high level of informal economy are diverse, but the most important are high taxes, and timeconsuming administrative procedures. On the other hand, these are two main reasons why workforce chose to go to informality. Furthermore, if the government create and implement transparent policies related to the informal economy, would be a key to enhance the growth and competitiveness in rural areas, especially in the agricultural sector in Romania. Finally, the paper recommends a model that has strict and effective relation between public policy, public administration and organs of administration system. The model suggests a better collaboration between government and citizens in order to diminish the informal sector.

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