TRENDS OF EMPLOYMENT IN INFORMAL SECTOR IN ROMANIA DURING CRISIS; ECONOMIC AND SOCIAL EFFECTS

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Abstract: The present paper emphasizes the size and trend of employment in the informal sector as affected during the recent years by the crisis and by showing the relation with informal economy. The paper is structured on three parts. The first part focuses on the concepts and methodology popular and recommended by the international organizations together with the ones applied for the estimations presented in the paper. It brings information on the conceptual framework endorsed by International Labour Office (ILO) on the 15-th International Conference of Labour Statisticians (15th ICLS) - on informal sector (which was subsequently included in the revised international System of National Accounts, SNA 1993) and employment in informal sector - and on 17th ICLS, on informal employment. Methods used for obtaining the estimates for Romania figures on informal economy and employment are treated. For the informal economy the method used by National Statistical Institute of Romania (INS) for estimating the underground economy and own calculations were used. For estimating the employment in informal sector a method developed by the authors was applied which consists, on short, on reconciliation between demand and supply available from statistical sources. Second part is dedicated to the analysis on the estimates produced, with observations on the trends induced by the crisis on informal economy and employment. The second also deals with several characteristics and dimensions of the employment in informal sector by gender and economic activities as well as the relation with several macroeconomic and social indicators. Finally, the third and last part proposes the direction of action and policies aimed to combat and reduce the informal sector and to transfer it into the "light", "visible" side, i.e. the formal

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I. Theoretical and methodological considerations Informal sector

Taking into account the importance of the role played by the informal economy for employment creation, income generation and poverty reduction, it is essential first of all to establish the content and meaning of the concepts used for defining employment in informal sector as against informal economy. Secondly, these considerations are necessary to better understand the characteristics and evolutions of both phenomena, i.e. informal sector regarded from the employment perspective as well as from the economic one. And again it is worth to clearly present the operational definitions developed for statistics applied on the informal employment and economy.

In January 1993, the *Fifteenth International Conference of Labour Statisticians (15th ICLS)* adopted an international statistical definition of the informal sector, which was subsequently included in the revised international *System of National Accounts (SNA 1993)*. Inclusion in the SNA of the informal sector definition was considered essential as this would make possible indentifying the informal sector separately in the accounts and, hence, quantifying the contribution of the informal sector to the gross domestic product (GDP).

As stated in the OECD Handbook, "the vast majority of informal sector activities provide goods and services whose production and distribution are perfectly legal. This is in contrast to illegal production. There is also a clear distinction between the informal sector and underground production. Informal sector activities are not necessarily performed with the deliberate intention

of evading the payment of taxes or social security contributions, or infringing labour legislation or other regulations."

At the Fifteenth International Conference of Labour Statisticians, the <u>informal sector</u> was characterized as "consisting of units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned. These units typically operate at a low level of organization, with little or no division between labour and capital as factors of production and on a small scale. Labour relations - where they exist - are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees".

In order to obtain an internationally agreed on definition of the informal sector - acceptable to both labour statisticians and national accountants - the informal sector had to be defined in terms of characteristics of the production units (enterprises) in which the activities take place (enterprise approach), rather than in terms of the characteristics of the persons involved or of their jobs (labour approach).

For statistical purposes, the **informal sector** was defined as a group of production units which, according to the definitions and classifications provided in the United Nations System of National Accounts (SNA Rev.4), form part of the household sector as household enterprises or, equivalently, unincorporated enterprises owned by households⁶ Within the household sector, the informal sector comprises:

- (i) "informal own-account enterprises" (i.e. household enterprises owned and operated by own-account workers, either alone or in partnership with members of the same or other households, which may employ contributing family workers and employees on an occasional basis, but do not employ employees on a continuous basis); and
- (ii) the additional component consisting of "enterprises of informal employers" (i.e. household enterprises owned and operated by employers, either alone or in partnership with members of the same or other households, which employ one or more employees on a continuous basis). For operational purposes, enterprises of informal employers may be defined, in terms of one or more of the following criteria: (i) size of the unit below a specified level of employment; (ii) non-registration of the enterprise or its employees.

⁶ According to the SNA (Rev.4), household enterprises are units engaged in the production of goods or services which are not constituted as separate legal entities independently of the households or household members that own them, and for which no complete sets of accounts (including balance sheets of assets and liabilities) are available which would permit a clear distinction of the production activities of the enterprises from the other activities of their owners and the identification of any flows of income and capital between the enterprises and the owners.

Employment in informal sector and informal employment

The 15th ICLS also defined the **employment in informal sector** as "comprising all jobs in informal sector enterprises, or all persons who, during a given reference period, were employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or a secondary job,, (Hussmans R., 2004)

The Seventeenth International Conference of Labour Statisticians (17th ICLS) endorsed the definition of the informal employment which is a job-based concept as compared to the employment in informal sector which relates to the enterprise-based concept. Thus, the 17th ICLS defined *informal employment* as the total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households, during a given reference period, comprising (see the below diagram):

cell 3 - own-account workers employed in their own informal sector enterprises; cell 4 - employers employed in their own informal sector enterprises; cells 1 and 5 - contributing family workers, irrespective of whether they work in formal or informal sector enterprises; cell 8 - members of informal producers' cooperatives; cells 2, 6 and 10 - employees holding informal jobs in formal sector enterprises, informal sector enterprises, or as paid domestic workers employed by households; cell 9 - own-account workers engaged in the production of goods exclusively for own final use by their household, if considered employed. Cell 7 refers to employees holding formal jobs in informal sector enterprises⁷

According to the diagram below, the coverage of different segments of informal employment, in relation with the concept applied, are:

- *Informal employment:* Cells 1to 6 and 8 to 10.
- *Employment in the informal sector:* Cells 3 to 8.
- *Informal employment outside the informal sector:* Cells 1, 2, 9 and 10.

Conceptual Framework: Informal Employment

				Jobs	s by status in emplo	oyment			
Produc		ccount kers	Employ	/ers	Contributing family workers	Emp	oloyees	Members of producers' cooperatives	
tion units by type	Inform al Formal Inform For mal		Informal	Inform al Formal		Informal	F o r m a		
Formal sector enterpri ses					1	2			
Informa 1 sector enterpri ses ^(a)	3		4		5	6	7	8	
Househ olds (b)	9					10			

- (a) As defined by the Fifteenth International Conference of Labour Statisticians (excluding households employing paid domestic workers).
- (b) Households producing goods exclusively for their own final use and households employing paid domestic workers.

⁷ Such cases, which are included in employment in the informal sector but excluded from informal employment, may occur when enterprises are defined as informal in using size as the only criterion, or where there is no administrative link between the registration of employees and the registration of their employers

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Note: Cells shaded in dark grey refer to jobs, which, by definition, do not exist in the type of production unit in question. Cells shaded in light grey refer to formal jobs. Un-shaded cells represent the various types of informal jobs.

Methods for measuring the informal sector

The method chosen plays an important role in determining the size and characteristics of the informal sector in terms of employability. Usually the indirect methods allow to capture the information on employment in informal sector while the direct methods on informal employment. Main **direct methods** as described in Chapter 10.3 Measuring the Informal Sector of the OECD Handbook already mentioned are:

Labour Force Surveys (LFS) - monitoring the number and characteristics of the persons in the informal sector and the conditions of their employment and work as can be achieved by periodically including a few additional questions pertaining to the informal sector definition in an existing labour force or similar household survey

Household Income and Expenditure Surveys - household income and expenditure surveys are a potential source of information on the demand by households for goods and services produced in the informal sector. They cannot provide information on the total demand for informal sector products, but only on household final consumption expenditure for informal sector products, which is only a part of the total demand.

Informal Sector Enterprise Surveys - an enterprise survey presupposes the availability of a sampling frame of informal sector enterprises or establishments. List frames are usually not available. Often, enterprise surveys can be conducted only following a census of informal sector units or a general economic/establishment census covering the relevant branches of economic activity and containing the items required for the identification of informal sector units.

Informal Sector Mixed Household-Enterprise Surveys - such surveys are the most suitable approach when the aim is to collect comprehensive data about the informal sector. These surveys can cover all informal sector entrepreneurs and their activities, irrespective of the size of the enterprises, the kind of activity and the type of workplace used, and irrespective of whether the activities are undertaken as main or secondary jobs. In particular, they can also cover activities undertaken inside the owner's home or without fixed location.

Modules attached to household surveys - attachment of an informal sector module to an existing household survey (such as LFS) means that the informal sector survey sample is obtained as a sub-sample of the base survey.

Integrated surveys - can be seen as special types of modular surveys. Integrated surveys are designed to meet several objectives at the same time, i.e. the collection of data about the informal sector and other topics, e.g. labour force, household income and expenditure.

A on the **indirect methods** used to measure the undeclared work (UDW) was presented in the Final report to the European Commision in December 2009 by a group of experts from GHK and Fondazione G. Brodolini. According to this report, *indirect or general methods* rely on comparisons of macroeconomic aggregates (such as national accounts, electricity consumption, cash transactions) in order to estimate the extent of UDW; the methods in this category are: (i) Discrepancy methods; (ii) Labour Input methods; and (iii) the Degree of Participation method.

Econometric approaches group together all the methods that produce a total quantitative estimate of the non-observed economy by means of a model; there are three distinct methods in this group: (i) the Monetary (Tanzi) Method; (ii) Global Indicators Methods (Electricity Consumption); and (iii) Latent Variable Methods.

Discrepancy method - comparing income and consumption - uses as approach for estimation: declared income which does not include income that has been concealed for tax reasons, whereas the estimate of consumption does. Thus, the difference between the two estimates can be attributable to tax evasion. Another popular application of discrepancy methods - recommended

by Eurostat to ensure the exhaustiveness of national accounts - is to compare the findings of labour force surveys (LFS) with the recorded labour demand (e.g. based on company declarations to tax or social security authorities or national statistical offices).

Labour Input method - information on the supply side of the labour market – for instance the Labour Force Survey (LFS) – can register a part of the undeclared work because individuals are less motivated than enterprises to conceal the nature of their work. In this method, the above information is compared with information on the demand. It makes use of several statistical and administrative sources.

Degree of participation method - a well-established procedure does not exist. As a general framework, positive (negative) variations in labour force participation in the official economy are seen as negative (positive) variations in undeclared labour.

Monetary Method - Tanzi Method - based on following key assumptions: underground transactions are conducted only on a cash basis.

Global Indicators Method - Electricity Consumption - the difference between the growth rate of electricity consumption (a proxy for the growth rate of total economic activity) and the growth rate of measured GDP yields an approximation of the growth rate of unrecorded income.

Latent Variable Methods - MIMIC (multiple indicators and multiple causes) or DYMIMIC (dynamic multiple indicators and multiple causes) - based on following key assumptions: Undeclared work is an unobserved (or latent) variable that influences observed indicators and is determined by observed variables.

Estimation methods used for Romania

A. The trends of the informal economy were based on the estimates on share from GDP of the underground economy.

In Romania, the National Institute for Statistics (INS) estimates within National Accounts the non-observed economy (NOE), also known as underground economy, which stands for productive legal activities but deliberately concealed from public authorities for such reasons as to avoid the payment of income, value added or other taxes; to avoid the payment of social security contributions; to avoid having to meet certain legal standards; and to avoid complying with certain administrative procedures, such as completing statistical questionnaires or other administrative forms.

The **informal sector** consists (according to ILO definition) of productive units characterised by a low level of organisation, with little or no separation between capital and work, and by work relations based on kinship and/or social relationships, rather than formal contracts. These units belong to the household sector. The owners of such units are totally responsible for all financial and non-financial obligations undertaken for the production process. If the activity of these recorded units is deliberately hidden they enter in the sphere of economic underground.

For the identification of the NOE, the whole economy is split into two sectors: formal and informal. For **formal sector**, the estimation of the INS Romania consists of:

- under-reported value added by registered institutional units in the formal sector (non-financial corporations) because of the underground utilisation of labour;
- under-reported value added by registered institutional units in the formal sector (non-financial corporations) because of value added taxes evasion.

First the estimation of black labour is performed. The activities which are under-reported are evaluated based on estimation of input of labour, procedure recommended by SNA 93. Using this approach, it is possible to evaluate the irregular labour within the productive process and under-declaration of the production obtained by means of regular labour. The method used is based on the comparison between the labour force supply and demand in order to identify the persons who carry out a legal activity in a unit from formal sector, but are not declared to authorities.

Step two – the estimation for VAT evasion is made. in order to obtain gross wages which stay at the basis of GVA compilation, the obtained number of persons engaged in "black labour" is multiplied with the average gross salary, specific by each industry, obtaining Compensation of employees. Specific coefficients of Compensation of employees into GVA are used - (characteristic for the small enterprises from the respective branch of activity, identified based on Structural Business Survey - SBS) and the amount of gross value added is estimated.

Estimations are made for the VAT evasion. One part of the VAT evasion represents the VAT for underground economy already estimated using methods presented above, and other part represents the VAT evasion of reported turnover. For the whole VAT, the tax evasion is calculated by the difference between the theoretical VAT and the value received by the State Budget. Theoretical VAT is calculated for intermediate consumption, final consumption of households, final consumption of general government and GFCF based on rates of VAT by products, defined by the law. This fraud is included in output and GVA for each corresponding branch

For the **informal sector**, the estimations are calculated for all activities performed by family associations and self-employed. Data on these activities are available from the Ministry of Public Finance. Out of the Romanian Labour Force Survey (AMIGO) information about the number of persons who work in family associations and self employed are used. The estimations made are based on the principle according to which the incomes realised by non-paid workers (persons from family associations and self-employed) cannot be less than the average wage earned by employees in the same activity, from small units. The income declarations of the Ministry of Public Finance received from registered self employed and family associations are compared with the value of these calculations. As result of this analysis, the incomes are adjusted, and the tax evasion of the units registered within the informal sector is completely removed.

Another important type of non-observed economy is represented by the activities carried on in **units non-registered**. In this category are included: dressmakers, tailors, workers who repair cars, hairdressers, house painters, plumbers, teachers giving private tuition, people into house-rental during holiday time. For such activities a distinct valuation is undertaken using specific assumptions and available data sources from the statistical system. These data sources are specific to each kind of activity, as described above.

- **Hotels**: the basic assumption is that the number of non-registered tourists is equivalent to 1/3 of the total registered tourists. The average values of the accommodation for a night, considering a number of 15 holiday nights per year is, then, multiplied by the number of non-registered tourists. The result is considered as the output. The intermediate consumption is estimated by using the IC/registered output ratio of the formal sector.
- Construction: It is considered that 50% of the total self-employed registered in this activity carried out also a non-registered activity. This number is multiplied with the average gross salary of the construction activity and the result is considered as GVA. To calculate the production it is used the ration GVA/registered output of the small construction enterprises from the formal sector.
- **Education**: it is considered that a half of the pupils registered in the last year of the secondary school as well those from the last year of the high school took meditations. Their numbers are multiplied by the average value of a lesson, by the frequency of the lessons per week as well as by the number of weeks in a year.
- **B.** Estimates on employment in informal sector are the results of own calculations based on the discrepancy method on labour input for employees as provided by the Romanian Labour Force Survey (AMIGO) for demand component and the Labour Cost Survey for supply component. Informal employment does not exist in public administration was the assumption used in terms of coverage on economic activities. For the non-paid employment the estimates provided by AMIGO; adjustment coefficients were applied by economic branches following an algorithm

similar to the one used by National Accounts for estimating the labour from informal sector and non-registered units.

II. Employment in the Romanian informal sector and its impact on several economic and social phenomena

Informal economy and employment during crisis

The effects of the recent financial crisis were felt in Romania since the second half of 2008. The crisis has fuelled the economy. Hidden economy and evasion of tax or payroll taxes have become increasingly common. The private sector has limited the business and resorted to layoffs. In the budgetary sector the austerity measures aimed also to drastic reductions in staff and earnings. The measures taken for reducing earnings in the budgetary sector have influenced the private sector to taken similar action. Decreased purchasing power has led people to buy cheaper products that are often found on the black market where no taxes are paid. The shadow economy has taken on, with negative consequences for state revenues, thereby stimulating the continuation of the crisis. The estimates on informal sector evolution (*see Annex, Figure 1*) – expressed in terms both economic as percentage from GDP, and labour as percentage from total employment – show how informal sector spread widely after 2008. The share in GDP grew to 22.2% from 19.6% in 2008 (after a 21.0% in 2009). The share in employment was even higher - by 6 percentage points over the last two years (from 23.2% in 2008 to 29.2% in 2010). Even if of different amplitudes, both phenomena have similar trends with negative impact induced by the crisis.

Trends of the employment in informal sector

Since whether to include or not agricultural activities is controversial, the estimations were prepared in both versions (with and without the agricultural sector). In the following, the version including agricultural sector (TIA, total population including agricultural sector) was analyzed.

Estimations on employment in informal sector (*see Annex, Figures 2 and 3*) made as described above lead to emphasising several important observations. First of all, the phenomenon is widespread and if in 2002 the share of employment in informal sector in total population was less than a quarter (23.3%, similar to the share estimated for 2002, i.e. 23.3%), in the following years it recorded higher levels (25.7% in 2004, 24.2% in 2008), and falling in 2008 to 23.2%. But, after the emergence of the crisis, the phenomenon regressed significantly, and in 2009 it already exceeded a quarter (25.9%) of total employment and continued growing to 29.2% in 2010.

The second observation relates to the higher shares for male population as compared to female one, true for the entire period without any exception: e.g. 24.0% as against 22.5% in 2002 and 30.8% as against 27.4% in 2010.

Employment in informal sector (see Annex, Table 1) is more met in:

- agricultural activities (with shares below 38.5% until 2008 but reaching 39.0% in 2010) where most part is composed from elderly, persons with low education levels, who work in their own households mainly to produce for self-consumption (and less for market); the phenomenon is almost equally spread irrespective of gender; 2010 shows a migration to agricultural sector of the jobless population who remained without a work place due to dismissals in the non-agricultural activities as effect of the recent crisis;
- collective, social and personal services⁸ (raising from 46.0% in 2002 to 50.4% in 2010) where mainly two categories of persons are identified those who perform services that require a certain qualification (such as hairdressers, tailors, dressmakers, boots makers etc.) and those who have no qualification or only very low education levels and who,

 8 Due to the differences between the two CANE (Classification of Activities from National Economy) versions (Rev. 1 and Rev.2) the coverage for collective, social and personal services is not fully comparable for period 2008-2010 with previous years.

- actually, perform only domestic activities (cleaning, laundry, ironing, cooking, babysitting or care services for elderly or sick persons, gardening, house painting etc.);
- real estate transactions difficult to be identified as such for the period 2002 2006 because, according to Rev.1 version of CANE⁹ the coverage was considerably higher also comprising renting and business activities, which were excluded in version Rev.2 of CANE where during 2002-2006 more than a quarter of employed population was engaged in the informal sector; looking at 2008 2010 period the shares are significantly higher with a clear ascendant trend (from 42.3% in 2008 to 50.3% in 2010) but the phenomenon is observed exclusively for real estate transactions and presents deep gender disparities: the share for men riches 51.2% in 2008 and 62.5% in 2010 while for women 34.3%, respectively 38.1%;
- constructions (where data are comparable over time since the differences in coverage between the two CANE are insignificant), activities characterised by a constant increase over the entire period from 20.8% in 2002 to 36.6% in 2010;

In terms of employment, the informal sector absorbed workforce in every economic activity (*see Annex, Table 1*), with significant values in trade (18.2% in 2002, but 27.2% in 2010), hotels and restaurants (13.2% in 2002 and just over a fifth in 2010), mining (15.4% in 2002 significantly increased in 2010 to 23.5%), manufacturing (13.0% in 2002 to 12.8% in 2008 rising to 20.3% in 2010) etc.. Noteworthy is the growth of informal employment observed wherever the formal sector created a niche, leaving uncovered the populations demand, for inter-urban service transport, for intance. Following reduction, or interruption of the transport systems and the spectacular increase of the county's sprices on rail transportation, many private companies transport networks emerged and developed rapidly in recent years. Therefore, the males employed in the informal sector in transport held significant shares for the entire period (16.2% in 2002, 19.2% in 2004, 14.7% in 2008 and highest in 2010 - 22.8%).

Services such as education and health deserve particular attention. Although the shares in total employment of the corresponding economic activity of those working in informal sector had a positive evolution by diminishing from 22.3% in 2004 to 17.0% in 2008 in the case of education and from 20.6% to 17.1% in the case of health, the year 2010 brought a negative impact, the shares increasing by about 10 percentage points as against 2008 (with levels of 27.8% for education and 26.5% for health). The existence and maintenance at close values – for the entire period – of the shares of employment in informal sector demonstrate the deficiency of the education and health care systems in Romania.

2010 marked a visible regress; estimates have shown major deteriorations in many economic activities.

In addition to those already mentioned, the situation recorded for activities (According to CANE Rev.2) in "Water distribution; sanitation, waste administration, decontamination activities" has to be commented, where the share of employment in informal sector grew to 42.6% (as compared to 25.0% in 2008), in "Activities of administrative services and activities of support services" where the regress was of 14.6 percentage points as against 2008 (40.3% in 2010 comparing to 25.7%) as well as in "Showbiz, cultural and recreation activities" where the gap against 2008 amounted to 18.6 percentage points (36.5% in 2010, 17.9% in 2008).

When looking at the distribution of employment in the informal sector by economic activities (see Annex, Table 2) is visible the strong share of the agricultural sector which absorbs an overwhelming part of the total employment in informal sector (59.8% in 2002 but decreasing year by year, in 2010 reaching the lowest level over entire period, i.e. 40.2%); a significant share is held by the manufacturing industry (oscillating between 11.2% in 2002 and 15.7% in 2004, in

⁹ Classification of Activities from National Economy, harmonized with the corresponding European Classification NACE (Rev.1 until 2008 and Rev.2 from 2008 onwards)

2010 recording a share of 12.4%) and wholesale and retail trade (increasing from 7.3% in 2002 to 11.4% in 2010).

Given the controversial issue of whether including or excluding agriculture from the scope of the informal sector, there is a need to assess the size and structure of this phenomenon on the particular variant, only for the non-agricultural activities (TEA — total population excluding agricultural sector).

From this perspective (*see Annex, Table 2, series on TEA*) - i.e. the distribution of the population employed in informal sector economic activities - the informal sector operates at the highest level in manufacturing activities (29.6% in 2002, down to 25.7% in 2006 - version of CANE Rev.1 and Rev.2 version CANE: 21.4% in 2008 decreased slightly to 20.7% in 2010), more among women than men (with a gap of less than 5 points percentage in 2002, declined to less than 2 percentage points in 2010).

Similarly, trade activities are on the second place (around 20% for the entire period), but gender disparities disadvantage the women.

Third place is for construction activities, where the proportion of workers in the informal sector increased during 2002-2008 (from 9.9% to 17.4% in the total workforce engaged in informal activities), but decreased in 2010 (15.9%). The overwhelming majority of those engaged in this activity are men (14.3% of men employed in the informal sector in 2002, but 26.4% and 24.1% in 2008 and 2010 compared to only 2.0 to 3.0% of women, regardless of year). High values are found in transport, storage and communications, especially among the male population (decreasing from 10.1% during 2002-2008 to 7.6% for 2010 to rise to 8.3%).

Again the education and health activities draw the attention by the amount of people involved in the informal sector, especially in the case of women where 1 in 10 persons are in this situation.

The level of informal employment for collective, social and personal services remains high, the proportion for women being of 11.0% in 2006 (the maximum during the analyzed time interval), respectively, 6.2% in 2008 (minimum) compared with 9.7% and 4.3% - the percentage of men for the same period.

Impact on several economic and social phenomena

Employment has declined. The employment rate of population (NIS, AMIGO) aged 20-64 years was 63.3%, decreasing by 1.1 percentage points compared to 2008 and among the lowest compared with other Member States of EU. In 2010 was noticeable the modification of the structure of the employed population between the two basic components: employees and non-employees. Structural changes in 2010 compared to 2008 occurred against the background of the movement towards agriculture, a phenomenon seen in the diminishing share of employees (with 2.5 percentage points) and increasing share of non-employees in agriculture (mainly self-employed and family workers) by 3.1 percentage points.

Unemployment has increased. ILO unemployment rate rose to 7.3% in 2010 from 5.8% in 2008. Registered unemployment rate (according to National Agency for Employment) has seen an upward trend (*see Annex, Figure 4*) by March 2010 (8.4% - maximum of three years), after reaching a minimum in the months May, June, July 2008 of only 3.7%.

Increasing unemployment was the direct result of the massive layoffs and drastic reduction of vacancies. The number of vacant jobs offered by employers in 2010 represented only a quarter of those corresponding to 2008 (see Annex, Figure 5).

The purchasing power of the population was reduced. Total household real income index (INS, Household Budget Survey (ABF) for 2010 compared to 2009 was of 93.8%. Real earnings fell in 2010 to 96.0% as against 2009 and to 94.5% as against 2008.

Economic progress has been affected. GDP decreased (*see Annex, Figure 6*) in 2009 compared to 2008 (92.9%), decrease that continued in 2010 (98.7% compared to 2009)- INS, National Accounts and own calculations). Population households actual individual final consumption index also

showed a declining 91.3% in 2009 compared to 2008, and 98.0% in 2010 compared to 2009. Taxes on product were also affected; they have decreased in 2009 compared with the previous year to 87.5% and 96.0% in 2010 compared to 2009. Poverty has been exacerbated. At risk of poverty rate¹⁰ increased to 22.3% compared with 21.7% in 2009 (but slightly below that of 2008 - 22.4%.

III. Policies aimed at stimulating employment diminishment in the informal sector

Policies and measures to lower and finally eliminate informal labour should be developed according to Romanian particularities. A prerequisite for such measures and policies to take effect is to build strong structures and tools to ensure their sustainability and independence, regardless of political changes. Otherwise, the risk that they remain only "on paper" and have no actual effect in reality is extremely high.

Policies should be focussed according to target populations.

One type of policy should be outlined for the group of people who are in this situation beyond their control and working in the informal sector because they have no other choice. This applies particularly to vulnerable groups on the labour market (with low education, low skills, no opportunities for access to a minimum capital to allow a small business on their own, etc..) and even discriminated (at the extremes of the active working life - is considered too young or too "old"). For these groups of persons systems on social protection and assistance need to be improved, to encourage their employment in the formal sector through targeted grants, and a functioning system should be put in place for retraining and vocational conversion. Appropriate conditions should be created to enable mobility and labour deployment to regions where demand exists.

Another type of policy should be outlined for the second largest category, which is present within informal employment - the kind that has chosen this path. For them the objective is of identifying best practices and measures to transfer them into the formal sector. In this category are partly owners of non-registered units, with firms registered but having staff employed on the basis of unlawful agreements (without employment contract), those who under-declare incomes from profit, and unauthorized own-account workers or, again, those declaring only a small share of income. This category includes those who - employee and employer - in practice declared a low level of remuneration, part of the actual earning being paid "in hand". Their successful move from informal to the formal sector can be done only through appropriate incentive structures, so that the benefits of the formal sector should be obvious and desired.

One of the main courses of action to reduce and even eliminate informal labour is to reduce the tax burden, especially in sectors where informal work is manifested most actively: small and medium-sized enterprises, economic activities identified as having a significant share of informality. To this end, it is necessary to streamline bureaucracy and reduce the time lag for setting and registering an own-account activity, along with creating favourable conditions for obtaining credit.

Special attention should be paid to measures for improving labour legislation taking into account the practical realities, and allowing for a more flexible labor market:

encouraging the creation of part-time jobs

¹⁰ According to EUROSTAT and EU documents (list of structural indicators, list of social inclusion indicators), the indicator used to measure (relative) poverty is named "at-risk-of-poverty-rate", to reflect that the income is only one of the multiple dimensions of poverty (the monetary dimension). The indicator is calculated as the proportion of persons from households with a disposable income less than a threshold representing 60% of the median disposable income by equivalent adult in the total population. The change in time of this relative poverty measure expresses only the influence of the income distribution modification on the proportion of poor, but not the evolution (increasing or decreasing) of the welfare level.

- coverage of the diversity of employment agreements that are practiced, but are not recognized and atypical types of employment programs;
- facilitating access to training and education (for example, for those who want to continue their studies, improving the skill or expertise, etc.).
- facilitating the reconciliation of family and professional life (for those who care for children attending preschool or elementary school, elderly or ill relatives who need help, assistance and supervision, etc.).

It is necessary to create structures for recognition and bringing into "light" services provided in households (home repair, fence, etc.., baby-sitting, care of sick and/or elderly, performing household chores - cooking, cleaning, washing etc.) accompanied by the implementation of a benefit system in terms of tax reduction for households using/employing such services.

Strengthening cooperation between social partners is of great importance. Good coordination and collaboration among the partners will result in increased detection and reporting cases of fraud on the informal economy

Finally, in parallel with the political and economic measures, the mentality of individuals has to be changed, for both workers and employers, for the public in general. Information campaigns should be geared towards raising awareness of the risks that workers are subject to because of avoiding the declaration of work undertaken and income gained, to social stigma on informal work and those involved, from both sides - employer and employee. One key objective of the campaign should be aimed at removing deep-rooted distrust of ordinary Romanians in public institutions.

Annex.

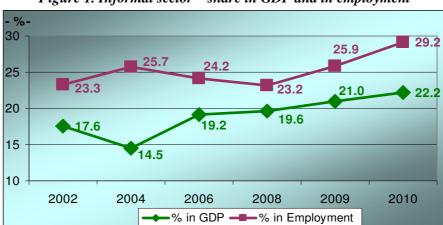
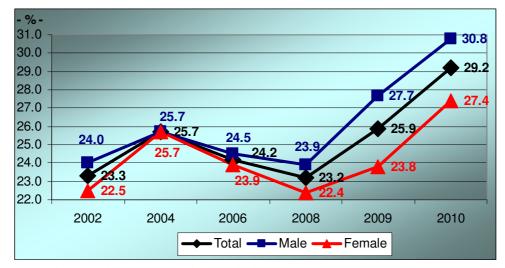


Figure 1. Informal sector - share in GDP and in employment

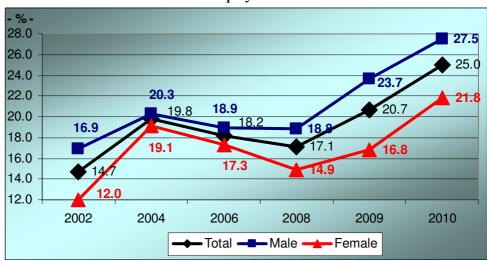
Source: INS, National accounts, Labour market statistics and own calculations

Figure 2. Share of employment in informal sector (including agricultural sector) in total employment



Source: INS, Labour market statistics and own calculations

Figure 3. Share of employment in informal sector (excluding agricultural sector) in total employment



Source: INS, Labour market statistics and own calculations

Table 1. Share of employment in informal sector by economic activities a) total, male and female population

	2002	2004	2006	2008	2009	2010							
CAEN Rev.1	Confe	orm CAEN Rev	v.1	Confe	orm CAEN Rev	.2	CAEN Rev.2						
Male and Female													
TIA	23.3	TIA											
TEA	14.7	19.8	18.2	17.1	20.7	25.0	TEA						
A	38.3	38.4	38.4	38.5	38.7	39.0	A						
С	15.4	20.8	15.5	13.7	18.9	23.5	В						
D	13.0	18.1	15.6	12.8	15.8	20.3	C						
Е	12.6	16.1	13.1	11.2	14.8	17.9	D						
F	20.8	24.2	24.1	25.0	40.0	42.6	E						
G	18.2	23.7	23.0	26.5	30.6	36.6	F						
Н	13.2	17.3	16.8	20.9	23.5	27.2	G						
I	15.0	18.9	16.9	14.9	19.5	23.3	Н						
J	12.8	19.6	20.6	16.5	18.6	20.5	I						
K	26.4	26.9	25.6	19.0	25.0	29.2	J						
M	13.0	22.3	19.6	17.8	20.4	23.3	K						
N	12.8	20.6	19.4	42.3	52.5	50.3	L						
О	46.0	48.3	47.1	21.4	27.6	30.4	M						
				25.7	34.1	40.3	N						
				17.0	22.4	27.8	P						
				17.1	21.7	26.5	Q						
				17.9	33.8	36.5	R						
				46.9	45.9	50.4	S						

b) male population

	2002	2004	2006	2008	2009	2010	
CAEN Rev.1	Conf	orm CAEN Re	v.1	Conf	orm CAEN Res	v.2	CAEN Rev.2
			Mal	e			
TIA	24.0	25.7	27.7	30.8	TIA		
TEA	16.9	20.3	18.9	18.8	23.7	27.5	TEA
A	37.4	37.6	37.9	37.5	37.9	38.6	A
C	15.5	20.5	15.5	13.6	19.4	24.2	В
D	14.7	18.4	15.8	13.7	17.9	21.3	С
Е	13.3	15.7	13.0	10.6	15.2	18.2	D
F	21.4	24.5	24.5	25.6	43.6	45.5	Е
G	23.8	27.9	27.1	27.5	31.7	37.6	F
Н	20.0	22.5	20.4	25.6	29.8	33.9	G
I	16.2	19.2	16.6	14.7	19.9	22.8	Н
J	14.4	19.2	20.1	19.7	23.4	22.2	I
K	31.6	29.2	26.6	19.5	27.8	30.8	J
M	18.0	27.3	23.7	19.3	23.5	25.9	K
N	15.5	23.3	20.2	51.2	68.4	62.5	L
О	54.8	46.8	47.5	24.7	35.4	37.1	M
				26.3	38.1	43.6	N
				22.7	33.9	40.7	P
				18.7	27.8	32.7	Q
				19.5	43.3	43.4	R
				51.9	49.4	51.5	S

c) female population

	2002	2004	2006	2008	2009	2010							
CAEN Rev.1	Conf	orm CAEN Re	v.1	Confe	v.2	CAEN Rev.2							
Female													
TIA	22.5 25.7 23.9 22.4 23.8 27.4												
TEA	12.0	19.1	17.3	14.9	16.8	21.8	TEA						
A	39.2	39.4	39.0	39.6	39.5	39.6	A						
С	14.5	22.0	15.3	14.0	15.8	19.4	В						
D	11.1	17.7	15.5	11.8	13.4	19.0	С						
Е	10.5	17.4	13.6	13.5	13.4	16.9	D						
F	15.3	21.7	20.3	23.4	30.8	35.1	Е						
G	13.5	20.2	19.5	16.6	19.7	25.9	F						
Н	9.7	14.6	14.8	16.9	18.1	21.7	G						
I	11.4	18.1	17.9	15.6	18.2	25.4	Н						
J	11.9	19.8	20.8	14.7	15.8	19.3	I						
K	18.9	23.4	24.0	18.2	20.2	26.4	J						
M	11.0	20.5	18.2	17.2	18.8	22.0	K						
N	12.0	19.8	19.1	34.3	35.3	38.1	L						
О	34.5	49.9	46.6	18.5	20.9	24.4	M						
				24.3	25.8	33.8	N						
				15.1	18.5	23.5	P						
				16.6	20.0	24.9	Q						
				16.4	25.7	30.5	R						
				42.3	42.9	49.6	S						

Source: INS, Labour market statistics and own calculations

Where:

TIA - Total population, including agricultural sector

TEA - Total population, excluding agricultural sector

Classification of Activities from National Economy - CANE Rev.1

- A Agriculture, hunting and forestry (including B fishery)
- C Mining and quarrying
- D Manufacturing
- E Electricity, gas and water supply
- F Construction
- G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
- H Hotels and restaurants

Classification of Activities from National Economy - CANE Rev.2

- A Agriculture, forestry and fishing
- B Mining and quarrying
- C Manufacturing
- D Production and supply of electric and thermal energy, gas, hot water and air conditioning
- E Water distribution; sanitation, waste administration, decontamination activities
- F Construction
- G Wholesale and retail; repair of motor vehicles and motorcycles
- H Transport and storage
- I Hotels and restaurants

- I Transport, storage and communications
- J Financial intermediation
- K Real estate, renting and business activities
- M Education
- N Health and social work

Others activities of national economy (including

- O collective, social and personal services, private households)
- J Information and communications
- K Financial intermediation and insurance
- L Real estate transactions
- M Professional, scientific and technical activities
- N Activities of administrative services and activities of support services
- P Education
- Q Health and social assistance
- R Showbiz, cultural and recreation activities
- Other activities of national economy (including
- collective, social and personal services, private households)

Table 2. Distribution of employment in informal sector by economic activities a) total, male and female population

CANE	20	02	20	04	20	06	20	08	20	09	20	10	CANE
Rev.1	According to CANE Re				ev.1	ev.1			ording to	CANE R	ev.2		Rev.2
	TIA	TEA	TIA	TEA	TIA	TEA	TIA	TEA	TIA	TEA	TIA	TEA	
						Male an	d female						
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	
Total	0	0	0	0	0	0	0	0	0	0	0	0	Total
A	59.8	-	47.3	-	47.5	-	47.5	-	43.4	-	40.2	-	A
C	1.0	2.6	1.2	2.3	0.8	1.5	0.7	1.3	0.8	1.4	0.8	1.4	В
D	11.9	29.6	15.7	29.9	13.5	25.7	11.2	21.4	11.6	20.4	12.4	20.7	C
E	1.1	2.8	1.3	2.5	1.1	2.2	0.6	1.2	0.8	1.4	0.8	1.4	D
F	4.0	9.9	4.9	9.3	5.8	11.1	0.9	1.6	1.1	2.0	1.2	2.0	Е
G	7.3	18.1	9.5	18.1	10.5	20.0	9.1	17.4	9.2	16.3	9.5	15.9	F
Н	0.7	1.7	1.1	2.1	1.0	2.0	11.2	21.4	11.3	20.0	11.4	19.1	G
I	3.2	8.0	3.7	6.9	3.6	6.9	3.1	5.9	3.7	6.5	3.8	6.4	Н
J	0.4	1.1	0.7	1.4	0.8	1.6	1.2	2.2	1.3	2.3	1.4	2.3	I
K	1.7	4.1	2.6	5.0	3.1	6.0	1.0	2.0	1.3	2.3	1.4	2.3	J
M	2.5	6.2	3.8	7.2	3.5	6.7	0.9	1.7	1.0	1.8	1.1	1.9	K
N	2.1	5.2	3.2	6.0	3.2	6.1	0.3	0.6	0.3	0.6	0.4	0.6	L
О	4.3	10.6	4.9	9.3	5.4	10.3	1.4	2.6	1.7	3.0	1.8	3.0	M
							1.7	3.3	2.1	3.8	2.3	3.8	N
							3.1	6.0	3.6	6.4	4.0	6.6	P
							3.0	5.7	3.6	6.3	4.0	6.6	Q
							0.4	0.8	0.6	1.1	0.7	1.1	R
							2.6	5.0	2.5	4.3	2.9	4.8	S

b) male population

CANE	20	02	20	04	20	06	20	08	20	09	20	10	CANE
Rev.1		Acce	ording to	CANE R	ev.1			Acce	ording to	CANE R	ev.2		Rev.2
	TIA	TEA											
Male													
Total	100. 0	Total											
A	54.0	-	45.5	-	45.5	-	42.8	-	38.1	-	36.5	-	Α
C	1.6	3.5	1.8	3.4	1.2	2.3	1.0	1.8	1.2	1.9	1.3	2.0	В
D	12.8	27.7	15.4	28.2	12.9	23.7	11.4	20.0	12.3	19.8	12.8	20.1	С
E	1.7	3.6	1.8	3.3	1.5	2.8	0.9	1.5	1.1	1.8	1.1	1.8	D
F	6.6	14.3	8.2	15.1	9.8	17.9	1.1	1.9	1.5	2.4	1.6	2.5	Е
G	7.8	16.8	9.4	17.2	10.4	19.1	15.1	26.4	14.8	23.8	15.3	24.1	F
Н	0.6	1.4	0.9	1.6	0.9	1.6	11.0	19.3	11.2	18.1	11.1	17.4	G
I	4.6	10.1	5.1	9.3	5.0	9.1	4.4	7.6	5.1	8.3	5.3	8.3	Н
J	0.3	0.7	0.4	0.8	0.5	0.9	0.9	1.5	1.0	1.6	1.0	1.6	I
K	2.1	4.5	3.2	5.9	3.6	6.7	1.2	2.1	1.5	2.5	1.6	2.5	J
M	1.8	3.8	2.3	4.2	2.0	3.7	0.5	1.0	0.7	1.1	0.7	1.1	K
N	1.1	2.3	1.4	2.6	1.4	2.6	0.3	0.5	0.4	0.6	0.4	0.6	L
О	5.1	11.2	4.6	8.4	5.3	9.7	1.3	2.3	1.7	2.8	1.8	2.8	M
							2.1	3.7	2.7	4.4	2.9	4.5	N
							1.9	3.3	2.4	3.8	2.5	3.9	P
							1.2	2.2	1.7	2.7	1.7	2.7	Q
							0.4	0.6	0.6	1.0	0.6	1.0	R
							2.4	4.3	2.1	3.3	1.9	3.0	S

c) female population

CANE	20	02	20	04	20	06	20	08	20	09	20	10	CANE
Rev.1		Acce	ording to	CANE R	ev.1			Acce	ording to	CANE R	Rev.2		Rev.2
	TIA	TEA	TIA	TEA	TIA	TEA	TIA	TEA	TIA	TEA	TIA	TEA	
						Fen	nale						
T-4-1	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	T-4-1
Total	0 67.2	0	0 49.6	0	0 50.0	0	0 53.8	0	0 51.0	0	0 45.4	0	Total
A				-				-				-	A
C	0.3	0.9	0.4	0.8	0.3	0.5	0.2	0.5	0.2	0.4	0.2	0.5	В
D	10.8	33.0	16.2	32.0	14.1	28.3	11.0	23.8	10.6	21.6	11.9	21.8	C
E	0.5	1.5	0.7	1.4	0.6	1.3	0.4	0.8	0.4	0.8	0.4	0.8	D
F	0.7	2.0	1.0	1.9	1.1	2.2	0.5	1.1	0.6	1.2	0.7	1.2	E
G	6.7	20.4	9.7	19.2	10.6	21.3	1.3	2.7	1.4	2.8	1.5	2.7	F
Н	0.8	2.3	1.3	2.7	1.3	2.6	11.4	24.7	11.4	23.3	11.9	21.8	G
I	1.4	4.1	1.9	3.8	2.0	4.0	1.5	3.2	1.7	3.4	1.8	3.3	Н
J	0.6	1.9	1.1	2.1	1.3	2.5	1.6	3.4	1.7	3.4	1.8	3.4	I
K	1.1	3.4	2.0	3.9	2.5	5.0	0.9	1.9	0.9	1.9	1.1	2.0	J
M	3.4	10.4	5.6	11.2	5.3	10.6	1.4	3.0	1.5	3.1	1.7	3.1	K
N	3.4	10.4	5.2	10.4	5.4	10.7	0.3	0.6	0.3	0.5	0.3	0.6	L
O	3.2	9.7	5.3	10.6	5.5	11.0	1.5	3.1	1.7	3.5	1.8	3.3	M
							1.1	2.5	1.3	2.6	1.5	2.8	N
							4.8	10.3	5.4	11.0	6.0	11.0	P
							5.3	11.4	6.3	12.9	7.1	12.9	Q
							0.4	1.0	0.6	1.3	0.7	1.3	R
							2.9	6.2	3.0	6.2	4.2	7.7	S

Source: INS, Labour market statistics and own calculations

Where:

TIA - Total population, including agricultural sector

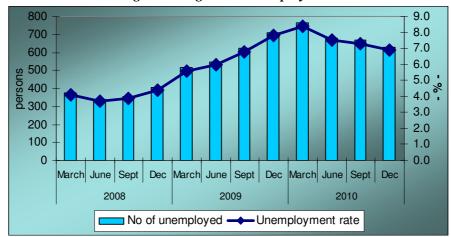
TEA – Total population, <u>excluding</u> agricultural sector

Classification of Activities from National Economy - CANE Rev.1

A	Agriculture, hunting and forestry (including B – fishery)	I	Transport, storage and communications
C	Mining and quarrying	J	Financial intermediation
D	Manufacturing	K	Real estate, renting and business activities
E	Electricity, gas and water supply	M	Education
F	Construction	N	Health and social work
G	Wholesale and retail trade; repair of motor vehicles,		Others activities of national economy (including
U	motorcycles and personal and household goods	O	collective, social and personal services, private
Н	Hotels and restaurants		households)

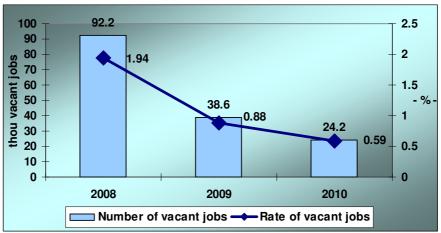
Classification of Activities from National Economy - CANE Rev.2 Agriculture, forestry and fishing Information and communications Mining and quarrying K Financial intermediation and insurance В Manufacturing Real estate transactions L C Production and supply of electric and thermal energy, D M Professional, scientific and technical activities gas, hot water and air conditioning Water distribution; sanitation, waste administration, Activities of administrative services and N Е decontamination activities activities of support services P F Construction Education Wholesale and retail; repair of motor vehicles and Q Health and social assistance G motorcycles Η Transport and storage Showbiz, cultural and recreation activities Other activities of national economy (including Hotels and restaurants I S collective, social and personal services, private

Figure 4. Registered unemployment



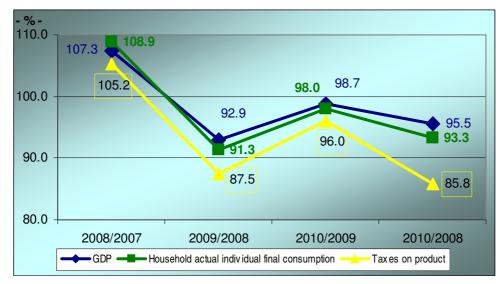
Source: National Agency for Employment (ANOFM in original)

Figure 5. Number and rate of vacant jobs



Source: INS, Statistics on job vacancies

Figure 6. Macroeconomic indicators



Source: INS, National Accounts and own calculations

Bibliography:

- 1. European Commission (2009), Study on indirect measurement methods for undeclared work in the EU (VC/2008/0305) Directorate-General Employment, Social Affairs and Equal Opportunities Unit EMPL/D1 Employment Analysis, Final Report submitted by GHK and Fondazione G. Brodolini, 17 December 2009
- 2. Hussmanns R., December 2004, Measuring the informal economy: From employment in the informal sector to informal employment, Working Paper No. 53, Policy Integration Department, Bureau of Statistics, International Labour Office, Geneva
- 3. INS, Forta de munca in Romania: Ocupare si somaj, ed. 2003-2011
- 4. INS, data sets from internal working documents from Household Budget Survey (ABF)
- 5. INS, data sets from internal working documents from National Accounts
- 6. International Labour Office (1993). 15th International Conference of Labour Statisticians: Highlights of the Conference and text of the three resolutions adopted. Bulletin of Labour Statistics 1993-2, IXXXIV. Geneva
- 7. International Labour Office (2003). Annex II Guidelines concerning a statistical definition of informal employment, endorsed by the 17th International Conference of Labour Statisticians (November-December 2003)
- 8. OECD (2002), Measuring the Non-Observed Economy, A handbook, Chapter 10. INFORMAL SECTOR PRODUCTION, pg 161, http://www.oecd.org/dataoecd/9/20/1963116.pdf