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IN THE SHADOWS THE INFORMAL SECTOR AND THE PARTICIPATION OF UNEMPLOYED PERSONS A CASE STUDY

1. The Analytical Approach

The last decade has witnessed an increase in the research on informal economic activity, both in developing countries or transitional economies (De Soto 1989; Johnson, Kaufman et al. 1997) and in industrialized countries (Dangler 1994; Marcelli et al. 1999). Recent work has only partly supported the dominant neoclassical view that the informal economy (IE) offers a solution to unemployment and poverty. As De Soto (1989: 185) put it,

the choice between working formally and informally is not the inevitable result of people's individual traits but, rather, of their rational evaluation of the relative costs and benefits of entering existing legal systems.

Sociologists in the structuralist tradition have however denied that informality is *exogenous* to the labor market, and a by-product of extra-economic state regulations, claiming that it is rather a by-product of firms constantly seeking to restructure production and to lower costs, therefore, *endogenous* to the labor market. Opinions are split concerning the unicity or the duality of the labor market (Borjas 1990; de Freitas 1991; Gordon, Edwards and Reich 1982). The neo-institutionalist approach assumes that informal employment is part of the non-primary labor market, therefore a complement to the formal one. The existence of informal workers is not seen in this approach to have a negative impact on the primary sector, on the contrary, it may benefit formal workers and firms by performing necessary but less desirable tasks at a lower cost and without an official work contract (Marcelli, 1999).

Concerning transitional economies of what was formerly known as the 'second world' we can again distinguish two opposing views. One claims that the official economy does not grow because of the informal

one, emphasizing the negative social capital of mafiotic economic activity and the large-scale tax evasion. This argument is mostly put forward in analyzing the Russian economy. The opposite view says that it is the poor performance of the government that pushes entrepreneurs outside the formal sector, in search of the best combination of taxes and public goods (Johnson, Kaufman and Shleifer, 1997).

In this paper, we understand by informal economy (IE) the economic activity that is not reported to the statistical office, although it should be according to the procedures. In the present study we plan to:

- a) Describe the overall strategies of the unemployed in the Romanian transitional economy, and offer a few predictors for each strategy. In addition, we attempt to:
- b) Test the extent to which IE is an alternative in the labor market.
- c) Provide collateral data for an evaluation of the dimension of IE in Romania, since existing data is, again, contradictory.

2. Measurements of the hidden sector

Data concerning IE are by definition difficult to obtain. Official statistics in particular capture the phenomenon only with extreme difficulty. In 1996 the Romanian National Commission of Statistics (CNS) argued that figures put forward by the Romanian Information Service (SRI) – which reported IE at about 40 per cent of the GDP) are strongly overvalued, in fact almost the double of the real figures. A report of the US Treasury issued in 1999 to the Romanian press seems to support more the estimation of the SRI than that of CNS. More modest figures, close to the CNS estimation of around 20 per cent, resulted however from the Johnson and Kaufman (1997) comprehensive comparative survey based on electricity consumption comparisons.

The US treasury study is the most recent, and it claims that the IE has simply grown from previous studies of earlier years. On the other hand the method employed by this study, based on monetary aggregates (the 'cash-demand approach'), is considered least appropriate for transition countries, where macro figures are unreliable, the economic activity highly volatile and a substantial part of the "white" transactions take place in cash. Moreover, the elegant monetary approach has been known for long to produce the highest, most spectacular estimates of the hidden sector,¹ which explains the findings of the American team in our case.

Other methods that are less simple to apply yield more conservative results: the 'Palermo' approach, comparing reported income with the local 'visible' consumption; the labor force approach, which counts people, not money flows; the survey approach (Alessandrini and Dallago, 1989). These methods look at more than one thing at a time and employ many checks based on common sense – hence their apparent imprecision. In exchange, they can offer invaluable insights into the phenomena going on at the micro level. Creative combinations of these methods, adjusted to the particularities of different regions, lead to results which are widely regarded as good approximations of reality, like Loayza's (1996) for Latin America, who pursued a MIMIC (Multiple Indicator-Multiple Causes) assessment. Finally, Kaufman and Kaliberda (1996) estimated the underground economy in post-communist countries, looking at variations in the total electricity consumption. This offers a rough measure of the overall economic activity. It was confirmed empirically that the GDP to electricity consumption elasticity is close to one in the short run. The differences in variation of GDP and power consumed should therefore be attributed to the informal economic activity.

Another possibility is to use the consultancy-type sectorial analysis, based on the expert evaluation. This is less likely to produce precise aggregate figures, but is very good as a starting point, playing the role of a preliminary focus group in the process of designing a comprehensive survey. The sectorial analysis can show us where to look for shadow economic activity and helps ranking the economic sectors according to their affinity for informal transactions. It can also point out regional differences that should be taken into account when the research is designed. For example, in many OECD countries the domestic employment and the drug traffic represent important parts of the gray and black markets, respectively.² By contrast, in the post-communist countries there is not so much domestic labor paid for in cash, but there is much more barter going on in the agro-food sector. Also, the black market is less developed in drugs or arms, while it is believed to be more active in the smuggling of highly taxed consumption goods (tobacco, (Johnson, Kaufman and Zoido-Lobaton, 1998) alcohol, coffee, etc.) and, especially in the former Soviet countries, in collecting protection taxes. But both in the developed and developing countries, CEE included, certain industries like constructions or transportation are known to shelter a lot of informal activity.

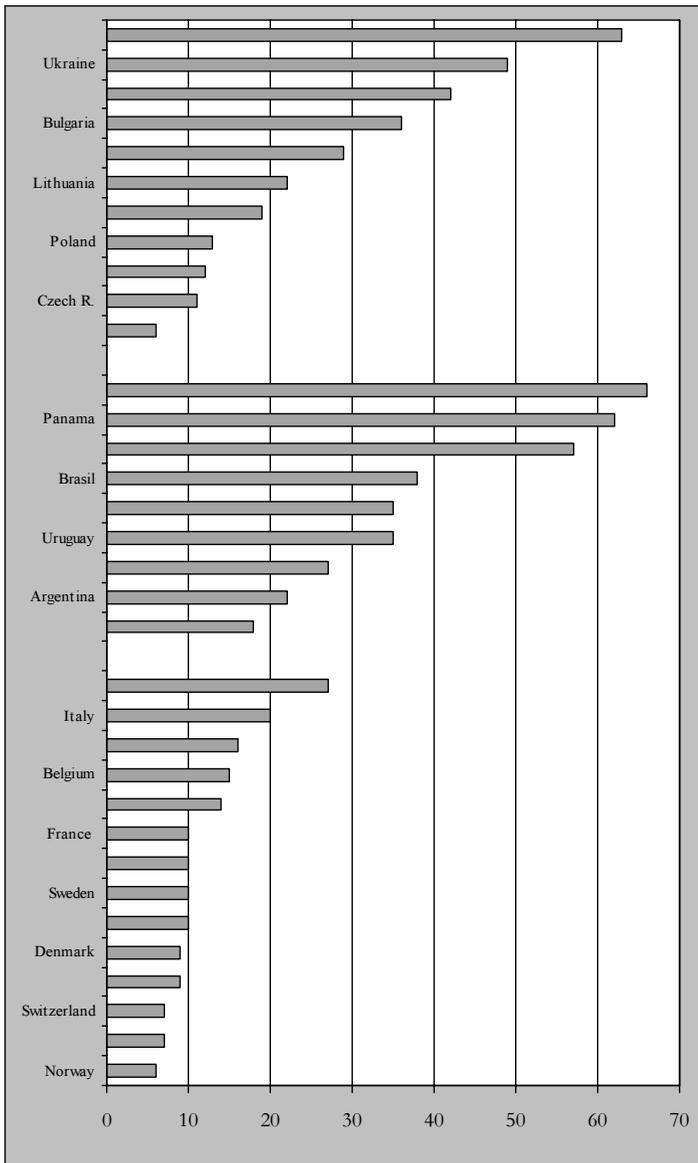


Fig. 1. Size of the informal sector, % of the official GDP: CEE, Latin America, OECD

Fig. 1 presents the dimension of the informal economy in a series of countries, as given in the study of Johnson, Kaufman and Shleifer (1998). Data were adjusted for comparability reasons – but, as the authors themselves suggest, they should still be taken *cum grano salis*, given the differences in the methodology used: in Eastern Europe the estimations are based on the electricity consumption; in Latin America on Loayza's composite index; in the OECD countries on the currency-demand approach. Most probably, the OECD figures are slightly overestimated when compared with the other two.

3. Methodology, Sample

In this study, we do not attempt to propose an alternative way of measuring the national IE. This would be far beyond our scope. We are interested in the informal economy only as an alternative 'survival strategy' for the unemployed. But we look nevertheless at the share and implications of the unemployed hidden activity for the national economy.

In drawing our sample of unemployed, we had the following considerations in mind:

1. To capture the difference between the capital, Bucharest, which has the lowest level of unemployment (5.3% at the end of 1999) and some provincial regions strongly affected by the transitional desindustrialization, with a consequential high level of unemployment, without, however, being a region too specifically tied to one industrial sector (such as mining). Neamț is one of the leading counties in the unemployment rate, with 18.5%. In 1999, according to the Romanian Statistics Commission, Piatra Neamț, the capital of the Neamț county, had recorded 10,432 unemployed in total, out of a 124, 859 total population. In Bucharest, on the other hand, we had a pool of 43,078 recorded unemployed out of a total population of 2,013,911. We assumed inhabitants of Bucharest have more opportunities and are able to cope better with unemployment.

2. Our second objective was to be able to compare the resulting data with those coming from polls with national representativity. The sample included 200 unemployed officially recorded as such in Piatra Neamț and 204 unemployed recorded in the six districts of Bucharest. The poll was conducted between 13-20 September 1999 by the Romanian polling institute CURS. We were able to compare the results with CURS data

from the Romanian Barometer of Opinion (BOP) measured by the same institute on the general population of Romania in October 1999.

The sample obtained was surprisingly similar with a national sample in terms of both income and attitudes. Our unemployed has a fare not better but not worse than the average Romanian; peasants and retired obviously earn even less than the unemployed, making the two samples comparable. This relatively good situation of the unemployed is due to the welfare benefits. According to the Romanian law there are two types of welfare benefits for the unemployed: during the first nine months of unemployment the individual receives an aid 'for unemployment and professional readjustment' (ranging from a minimum of 22% to a maximum of 55% of the national gross average income); during the next 18 months he or she will receive a more modest 'support' aid (60% of the value of unemployment aid). The sample was equally divided to include the two categories, and stratified in Bucharest to be representative for the structure of unemployment for the six quite different districts (each of them is a lot larger than the town of Piatra Neamț).

The subjective evaluation of one's life and of the whole country's situation presents no statistical significant differences between our sample and the BOP (see Annex 1). Our unemployed are the typical poor in a poor society; most of them are below the national income average, but so are the people in the BOP sample, as the following table shows.

In order to go beyond the average income and grasp the diversity of our sample's economic situation, we calculated the deciles of unemployed households' incomes on the basis of BOP general population, differentiating between the national and the urban sample. We then calculated the percentage of unemployed households, which fall in each decile.

Average income	Bucharest	Piatra Neamț	Cummulated Bucharest-Piatra Neamț	BOP (Urban)	BOP (National)	Official national urban figures
Average household income	1.9	1.5	1.7	2.4	2	1.7
Average individual income	0.5	0.4	0.5	0.7	0.6	0.5

Million Lei

In the first decile, the one comprising the poorest households, our sample has less than 5%, well below the national sample. This supports our observation that the poorest individuals are not drawn from the pool of recorded and assisted unemployed, even if the level of assistance is extremely modest (the figures vary, but for the support aid it is maximum 35 USD). This support is therefore essential from preventing people to fall in the lowest category of poverty.

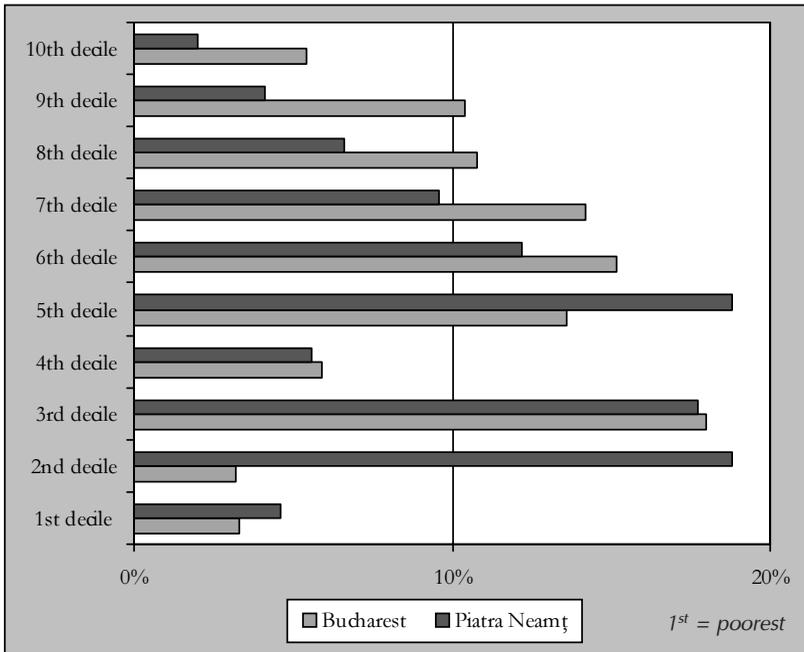


Fig. 2. Percentage of unemployed households compared with the general population national deciles (BOP), %

In the urban environment, the picture changes, however. The number of households in the poorest category is above the national urban level, 12.5% for Bucharest, and 31.5% for Piatra Neamț. Even if they are poorer than the average urbans, there is indirect evidence that urban unemployed are better off than peasants who do not receive any form of state support. This explains the change of picture from the national to the urban level.

The conclusion is supported by the number of home appliances found in the unemployed households. The unemployed have home appliances as often as the average Romanian household, scoring well on color TV-sets, washing machines, and cars. The percentage of cable subscribers is similar to the national one too: 64.4%, impressively high for a population with an average income of about 100 USD/household. The cost of a cable subscription is around 3-4 USD/month, so the figure is telling for the life-style of Romanians. Even the poorest make a substantial contribution from their income for family entertainment.

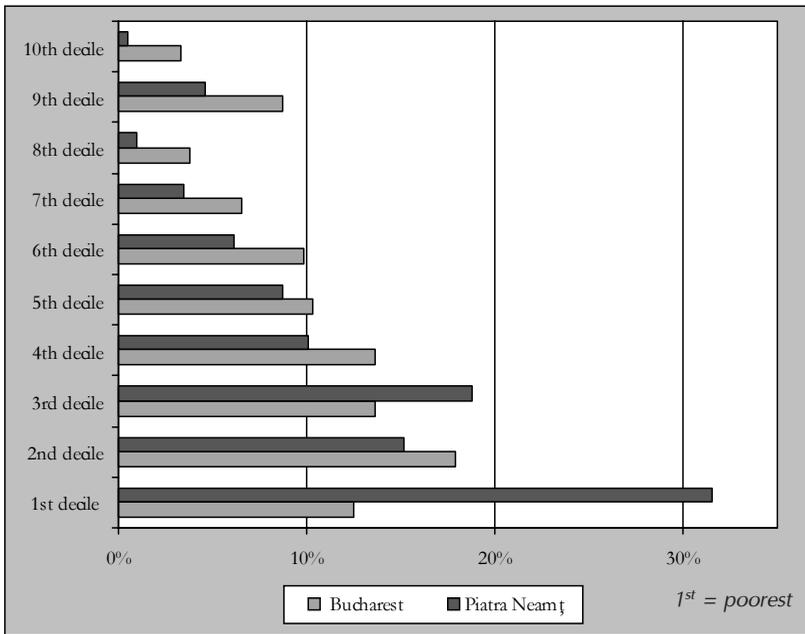


Fig. 3. Unemployed households compared with the general population urban sample deciles (BOP), %

One specificity of the Romanian situation is the large number of people who benefited from the restitution of land after 1989. Before the onset of communism, Romania was characterized by a large number of small landowners (strip farmers). The 1990 provisional government and then

the one elected on May 20, led by Petre Roman, promoted a policy of further fragmentation: land was either returned or redistributed from the former kolhozes to individual owners in very small plots, up to 10 ha in principle, but on the average of only 1 ha. We assumed that ownership of land in the rural area plays an economic role in the survival of urban unemployed, although not a decisive one, 1 ha not being enough even for a childless family to live on.

4. Determinants of Participation in the Informal Economy

A total of 45.5% of our sampled unemployed have some IE activity, of which 28% have had more than two occupations in the unofficial sector. The Piatra Neamț sample is a lot more active than the Bucharest one, as Fig. 4 shows.

We recorded as IE activity the presence of at least one activity, even occasional, which is very likely not to be taxed, such as small trade, day labor, domestic services of all kinds (see Annex 2). Our IE activity is therefore only in a very small percent self-employment and direct tax evasion, but overwhelmingly work without legal contract, on a less-than-permanent basis.

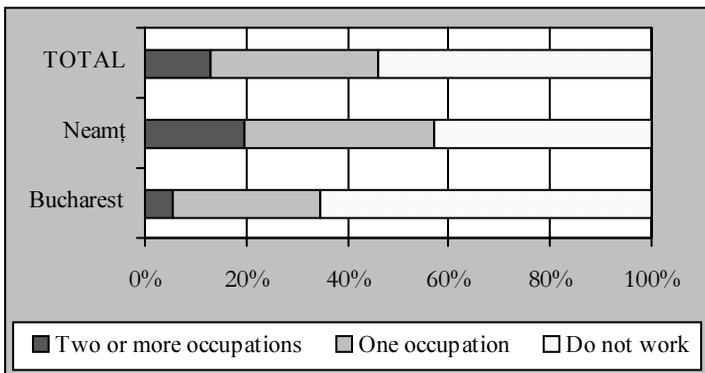


Fig. 4. Participation of unemployed in the informal economy

We assumed that IE work is determined by necessity rather than choice. This implies that more motivated and active subjects with less choice (other resources than own work during the unemployment period), will engage more in IE activity regardless their general opinion on working without a contract. However, they do not achieve anything more than sheer survival. In other words, work in the informal sector in our model does not necessarily drain resources off the formal economy. Due to the small sums earned in this manner, it is clear that the main motivation is to make a living. It is very likely that employers could not afford to offer contracts on such limited amounts of money and work, and unemployed could not survive if the same amount of money would be further reduced by some tax.

Our dependent variable is therefore the subjects' IE activity. The independent variables (predictors) we tested are:

- Social structure items (age, sex, education, number of children per household, number of household members, number of people active per household, residence, ownership of land, household income, nature of income – transient or permanent –, willingness to change occupation);
- Material status MS (constructed by us as factor score from the self-declared income and a cumulative index of home appliances in property);
- Motivation factors (scores on INPUT or DEMAND);³
- Occupational background;
- Number of months spent as unemployed;
- Resources for surviving unemployment;
- Behavior: ACTIVES or PASSIVES in looking for a new job⁴ (see Annex 3 for personal strategies in finding work).

We tested the independent variables first in bivariate logistic models. Significant variables were then tested in a multiple logistic regression model (see Annex 4). The final model predicts 73% of individual cases, with a R²=0.35. In the bivariate analysis, the predictors of work in the informal economy are the following:

a) ACTIVES. Being more active and entrepreneurial in looking for a job increases the chances of working in the informal sector. IE jobs are an obvious alternative to those in the formal economy. Active unemployed

have tried many other possibilities to find a job: if they end up in the informal sector this is because of the lack of any acceptable alternative in the formal economy. Passives have fewer chances to work in IE because they have fewer chances to work in general. The sample was however split over the choice between a contract job with less money (58%) and a better paid job without contract (42%), without this variable becoming a predictor. In the normal life, however, people do not even have the choice, only 16.3% of the unemployed in our sample being offered a job by the Unemployment Office (OFM). People who declare they are willing to change residence in order to find a job have more chances to work in the informal sector.

b) MOTIVATION. Being high on INPUT increases the chances of working in the informal sector. More motivated people will just search more and do any kind of work. High expectations towards the state's role and low expectations towards one's basic life needs (high score on DEMAND) bring about less entrepreneurial behavior in finding work.

c) GENDER. Being a woman decreases the possibility of working in the IE. Many explanations compete here, like the already reported little willingness of private employers to hire women, the more physical nature of occasional jobs, the fact that women are more occupied in the household.

d) WILINGNESS TO CHANGE OCCUPATION; PREVIOUS OCCUPATION AND EXPERIENCE. Individuals willing to change their occupation and learn other skills are more likely to engage in IE in the bivariate analysis. People who worked in industry, constructions, telecommunications and transports, on the other hand, are more likely to work in the informal sector than people with a record of previous employment in education or health. This is due to the fact that education and health is still overwhelmingly in the state sector, so formal or informal private alternatives are not available. On the contrary, the private sector is drawing massively upon constructions and transportations. Another factor is the very special qualification of individuals from the education and health sector, the higher sunk costs in this type of education, which prevents them from finding related work as easy as people with a background in industry or infrastructure building or maintenance.

e) FLEXIBILITY. People who believe experience is essential in finding a workplace are less likely to engage in IE activity. The experience measured in years is an indicator of flexibility rather than of anything else: people who stick to their previous work experience are less mobile so less likely to accept any kind of work. The last two predictors are so strong that they remain significant in the multivariate model.

f) NATURE OF INCOME. People who rely on some fixed income, such as a pension or a wage of some family member in the household, are less likely to work in the IE. This resource seems to give more room for a choice between immediately going towards the informal sector and waiting for some better opportunity. Since in many instances this opportunity is missing from pure economic reasons (absence of demand in the official labor market), people relying on such kind of incomes are simply going to be unemployed for a longer period of time than the rest.

g) OWNERSHIP OF LAND. The unemployed who own land are more likely to engage in some IE activity. The land matters also in the multivariate analysis, although respondents tend to diminish its importance when subjectively stating the importance of their resources. Although respondents tend to minimize the importance of land-based resources for their household when asked directly, it is clear that the resources from the land and the time spent to work it make people turn mostly to part-time jobs in the informal sector rather than full-time jobs in the formal one. The land is not enough to live on, but provides some basis for autonomy.

h) RESIDENCE. Residence in Piatra Neamț, this high on unemployment provincial town, increases significantly the chances of working in the IE, compared to the residence in Bucharest, where work in the formal sector is easier to find. The general profile of the unemployed in Bucharest shows them to be more pessimistic, more pretentious and less active overall. Economic conditions in Bucharest vary greatly from Piatra Neamț. Fewer factories were closed in Bucharest, and the private sector is the most developed in Romania. People who are unemployed and remain so, in Bucharest, are unlikely to have been victims of sudden and massive layoffs as in Piatra Neamț. The reason of their unemployment is more

likely related to personal choice than to structural problems of the regional economy.

i) HISTORY OF UNEMPLOYMENT. The number of months in unemployment is a predictor both in the bivariate and the multivariate analysis. The longer the history on the dole, the greater the chances are that the individual will become engaged in IE. This seems again to indicate that need and not choice is the main drive pushing people to seek work without contract.

Few social structure items are predicting the IE: gender, the occupational background and the nature of income are predictors in the multivariate analysis, while age, education, number of children and material status do not seem to differentiate between those who are involved in IE and those who are not (see Annex 4). Two categories of conclusions can be drawn from here:

A. A Model of Individual Choice When There Is No Choice

Working in the informal sector is in a very small extent a matter of choice. Romanians are not particularly enclined towards working in the shadow economy without a contract, but they experienced that working in the state sector is not a guarantee of survival: in many state enterprises wages are delayed, unpaid or so much reduced that they are not higher than the unemployment benefit. Combining the self-declared willingness to work without contract for a decent pay with the self-reports of engagement in such work is revealing. *The majority of individuals engaged in work without contract actually prefer to work with contract, even for less money, when they are given the choice, while 22% of the total sample indicates a preference for better paid work without a contract but is actually not involved in IE.*

	Unemployed not working in the IE	Unemployed, at least one activity in the IE	Total
Unemployed that would rather accept a better paid job without an official work contract (count and percent from total)	87 21.8%	81 20.3%	168 42%
Unemployed that would rather choose an official contract job with less money(count and percent from total)	129 32.3%	103 25.8%	232 58%
Total	216 54%	184 46%	400 100%

Openness towards work without contract and actual involvement

Like in Bucharest, people would rather stay unemployed than engage in IE. In poorer Piatra Neamț, where alternatives are scarce, people engage more in IE but they would work in the formal sector had any choice been offered. For a particular individual the model can predict fairly well if he/she will engage in IE, work in the formal sector if given the opportunity, or stay unemployed. It is clear that work in the public sector is a survival strategy of 'the most fit' for lack of choice alternative rather than an option to increase personal profit. A majority would prefer a work contract, but cross-tabulation of the sector preference with the actual work behavior shows that choice is severely limited. More people would work in the informal sector than those who actually can find work, and the incomes earned are barely enough for survival. Informal sector is actually acting as a second vital source besides the welfare support granted by the state, which allows survival of the households. The Bucharest unemployed have more choice in their economic environment, but they are more likely to stay unemployed, since they do not fit in the general model of the more entrepreneurial unemployed.

All other things being equal, the same type of individual will find work in the formal sector who is now engaged in the informal one – only that, for now, the demand in the formal sector is non-existing. Our model is therefore supporting the neoclassical economic theory models.

B. The Types of Unemployment

The nature of unemployment is quite different in Bucharest and Piatra Neamț, so we can actually distinguish two different types. Differences between Bucharest and Piatra Neamț have statistical significance, although one can find individuals who do not match the general types.

a) Bucharest unemployment figure is low (5.3%) and a large voluntary component seems to be involved:

- There is a tight labor market (higher average salaries).
- 1/3 of the unemployment is due to professional rigidity (people do not want to re-train for another job) or lack of interest (not interested in getting a job⁵).
- The Bucharest unemployed are more pessimistic and more difficult to satisfy. This corresponds to the profile of lower subjective welfare in wealthier regions (Ravallion, Lokshin, 1998).
- The unemployed from Bucharest need less to be active, since their families afford to support them frequently via intra-family help in cash.

b) The unemployment in Piatra Neamț is high (18.5%) and mixed:

- Lower average salaries are to be found on the employers' market.
- 40% of the unemployment is structural.
- 28% is due to local economic rigidities, the individuals being more dynamic and flexible than the business environment; so this component can be considered recession-induced unemployment.
- The unemployed are, compared to Bucharest, more professionally flexible and entrepreneurial people, willing to re-train and adjust to the demands of the informal sector.
- The unemployed from Neamț have a more positive attitude, being more optimistic with higher subjective well-being, which is consistent with the standard profile in a poorer region (Ravallion, Lokshin, 1998).

- Their immediate needs are more oriented towards investment as opposed to consumption.
- Families provide more often help in food than in cash, probably from village to town, as they were doing on a wider scale before '89. This is consistent with the rural setting of Piatra Neamț, a recent town in which the majority of inhabitants are the first urban generation.

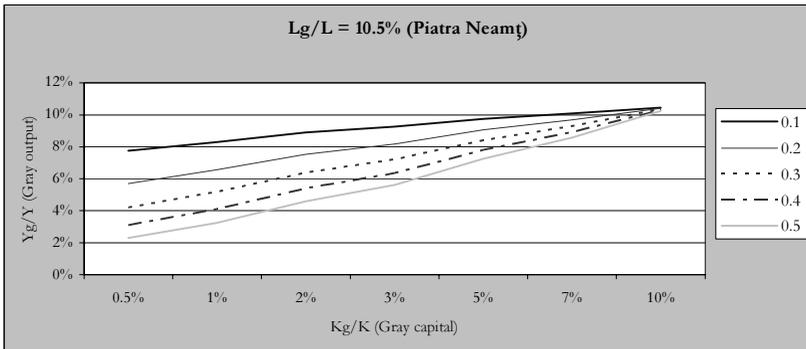
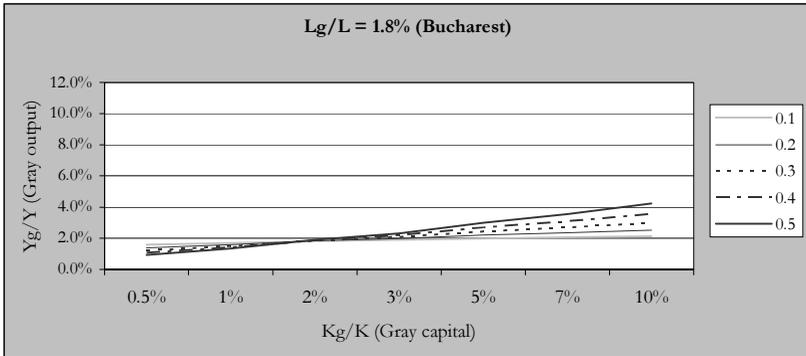
5. Evaluation of the Hidden GDP

If we attempt to estimate the additional contribution to the total economic output due to the unemployed individuals' unofficial activity, as a percentage of the officially reported GDP, we have to pursue the analysis in a few successive steps.

1. First, the share of the hidden labor market due to unemployed people ($Lg/L = Lg/U * U/L$) can be inferred from our survey data (Ug) and the official unemployment figures available, at the national level and in the two regions (U).

	Lg/U - Unemployed working in IE, %	U/L - Unemployment rate (1999), %	Lg/L - 'Gray' labor force, %
Bucharest	34	5.3	1.8
Neamț	57	18.5	10.5
Total	45	12.2	5.5

As we can see, the real labor force is 5.5 percent larger than that officially recorded if we take into consideration the unemployed who are active in the informal sector. However, there is a wide regional variation in this respect: in Bucharest the figure is only two percent, while in the Neamț county the difference is more than five times as large.



2. Now we have to estimate how much this extra labor force add to the total output, which is a trickier thing to do. We can start with the simple Cobb-Douglass production function:

$$Y = AK^\alpha L^{1-\alpha}$$

where Y is the total output, K the available capital and L the labor employed. A is a positive constant that measures the degree of technological knowledge and $0 < \alpha < 1$ the share of the capital income. So the extra output associated with the gray labour, as a share of the total GDP, becomes:

$$Y_g/Y = AK_g^\alpha L_g^{1-\alpha} / AK^\alpha L^{1-\alpha} = (K_g/K)^\alpha (L_g/L)^{1-\alpha}$$

The problem is now to approximate α . This is mostly guesswork in our context. Nevertheless, there are a few hints we can drop.

- In the developing countries, where most of the production is labor intensive, α tends to be situated in the lower half of the interval (Ray, 1998).
- Apart from this, it is known that post-communist countries use their stock of capital less efficiently within the category of countries with similar levels of development. Which is all the more true in Romania, due to the high distortions provoked by the investment policies during the '70s and '80s.

All these suggest that in the Romanian economy α tends to be closer to 0 than 1. Fig. 5 gives an estimate of the hidden GDP created by the unemployed, for values of α between 0.1 and 0.5, calculated with the formula above.

3. It is perfectly reasonable to assume that the extra labor in the hidden sector is also associated with the participation of an unknown amount of hidden capital (Kg). Even though this capital may be small or of a low quality, it is probably put to use more efficiently than that inherited in the official industrial sector. But the same reasoning applies to the labor productivity: in the hidden sector it is likely to be comparatively higher, in spite of the lower skills and qualifications of the unemployed population. Indeed, they may be even more productive in real terms, if we take into

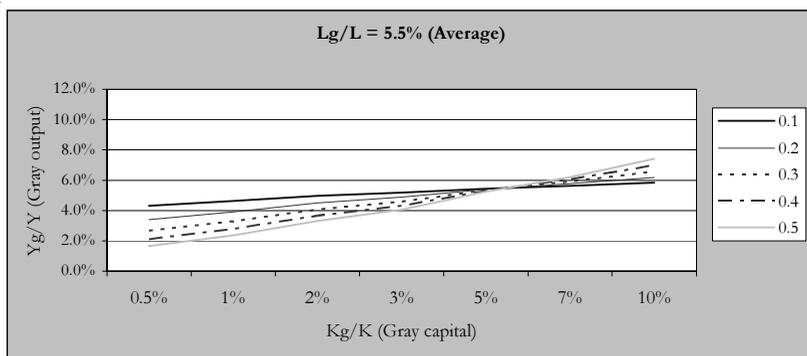


Fig. 5. Hidden GDP variation with the unemployed labor participation, hidden capital and α

consideration that more than a quarter has two or more jobs in the underground. Therefore, the capital inputs in the informal sector add some extra output to the hidden GDP calculated above. Still, the hidden sector being low skilled and labor intensive, it is unlikely that Kg/K be bigger than Lg/L . In Fig. 5 we should therefore take into consideration only the variations to the left of the intersection points – i.e. $Kg/K = 10.5\%$ for Piatra Neamț, 1.8% for Bucharest and 5.5% as an average.

4. The curves allow us to estimate that the proportion of the ‘hidden’ GDP due to the activities of the unemployed in the informal economy is somehow smaller than the corresponding proportion in the total labor force, calculated at step 1 – and the difference is bigger when the unemployment is higher (i.e., in Neamț). True, the gray output might be slightly underestimated here in real terms. Unlike the rest of the economy, the informal sector produces only *real* (as opposed to ‘virtual’) GDP, because it is not subsidized, does not subtract value by offering unwanted goods and services, does not deliver to customers who are not solvable and so does not contribute to the arrears problem. While these phenomena are marginal or non-existent in other developed or developing countries, they represent an important source of distortions in the post-communist economies, which we must keep in mind when we analyze aggregate data. But in spite of this underestimation, the share of gray GDP cannot be much higher than the corresponding share of gray labor (Lg/L), even with substantial gray capital involved (Kg).

In conclusion, our guess is that the unemployed working in the informal sector add to the official GDP around 4–6% on the average, at best. Their contribution is unevenly distributed in territory:

- Up to 2% in Bucharest, where there are fewer people officially registered as unemployed (the percentage may be higher since casual evidence tell us that the capital involved in informal activities here is more significant).
- 6–10% in Neamț, where there is less ‘voluntary’ unemployment and the official GDP/capita is also smaller.⁶

If this is true, it seems that the poorer a county, the higher the amount of the ‘gray’ GDP we must add to the officially calculated GDP. Thus, the informal economic sector, which hires unemployed people, functions like an equalizer across regions in Romania.

We must stress again that our evaluation in this paper concerns only the share of the informal sector due to the unemployed participation (i). The whole informal economy has at least two other significant components: (ii) the black market (criminal activities), and (iii) the unreported activities of the economic agents who do not employ gray labor. We are not able at this point to estimate their size, nor the degree of overlapping among the three. However, looking at the figures calculated above for the first component we have a strong feeling that the total size of the informal sector in Romania would come closer to the conservative figures of Johnson, Kaufman and Shleifer (approximately 20%) than those of the US Treasury team (40%) presented in paragraph 2.

6. Policy Recommendations

1. Repression is useless on this segment of the IE.

Our findings discourage the idea that normal growth is somehow prevented by the existence of a large gray economy. As long as the evidence points out that this gray economy is rather a survival strategy in very poor regions deeply affected by **the** recession, *a repressive policy would bring little benefit. Repressive policies should focus on the other two components (black market, evasion in the formal sector with/without the approval of the Ministry of Finance)*, especially in the poor regions where unemployment is largely non-voluntary. There is little to gain from combating the first (i) segment of IE in these regions, and all the more so since it will shrink naturally as the economic growth picks up. Tax breaks would also be of little help, since most of these jobs are occasional and poorly paid, practiced among individuals and not businesses. A tax break or across-the-board decrease in taxation would not push these people in the formal sector.

2. Do not play with the taxation system; address the real problems – bureaucratic overregulation, corruption, the weakness of the legal system.

Given the temporary character of the jobs on this segment of the labor market, it is unlikely that lower taxation would be a stimulant strong enough for employers to officialize their operations. As Friedman et al. (1999) show, it is not high taxation that keeps these entrepreneurs underground, but precisely the vicious circle of unnecessary

bureaucratization, low tax revenues and poor provision of public goods like clean government, law and order and good infrastructure.

3. Rules of unemployment benefit should be tightened; a more proactive policy is necessary.

The unemployed are not the worse of the Romanian society. Welfare benefits are small, but so are the wages in the state sector, which are sometimes even more unreliable, while the pensions for peasants are ridiculously small (some are around 50 cents). The existence of a large number of unemployed displaying a passive pattern of behavior towards finding new work, regardless the sector, points to the idea that the indiscriminate granting of welfare and unemployment benefits leads to some benefit-induced unemployment. Rules should be tightened and the attempts to find work should be given more careful scrutiny, in order to encourage the unemployed to be more active and responsible. More effort should be directed towards encouraging and assisting individuals to become self-employed, a strategy that is rarely pursued.

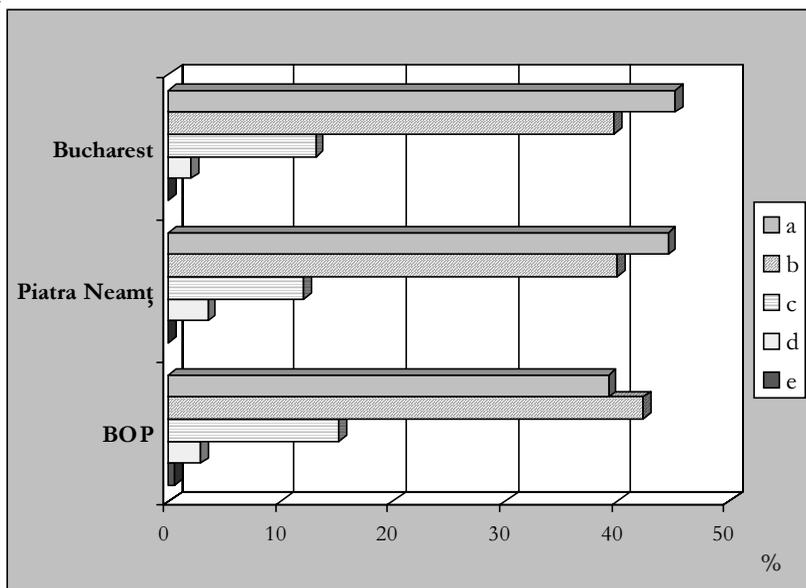
4. Different regional approaches are needed, corresponding to the different regional conditions.

A good policy should discriminate between various regions. A “national policy” in this area is neither possible, nor desirable. Acting on creating a tight conditioning of the welfare benefit to a more active individual strategy in finding work would probably reduce the rate of unemployment in Bucharest, by cancelling off its benefit-induced segment. In Piatra Neamț, however, most people are already working hard to find an alternative survival strategy, so that consideration should be given on how to assist people willing to relocate in order to find work. Regional programs of economic development and/or rehabilitation should be put in place.

ANNEX 1

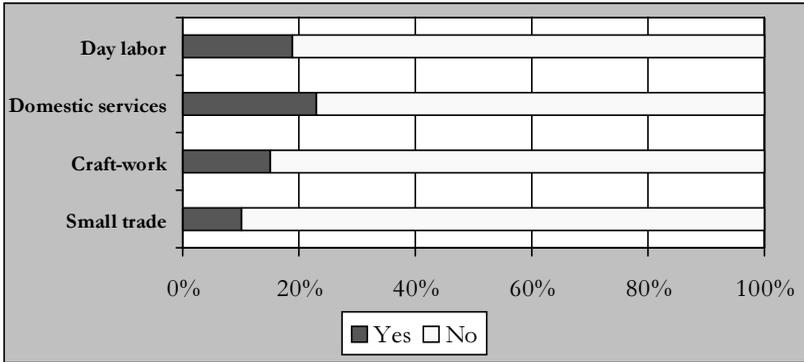
Subjective perception of the economic status

How do you evaluate your family income?	Bucharest %	Piatra Neamt %	BOP %
a. It is not enough for living	45.2	44.5	39.2
b. It is barely enough for living	39.7	40	42.3
c. It is enough for a decent living, but we cannot afford more expensive goods	13.1	12	15.2
d. We can sometimes afford expensive goods, but we have to restrict the spendings for other goods or services	2	3.5	2.8
e. No budget constraints			0.5



ANNEX 2

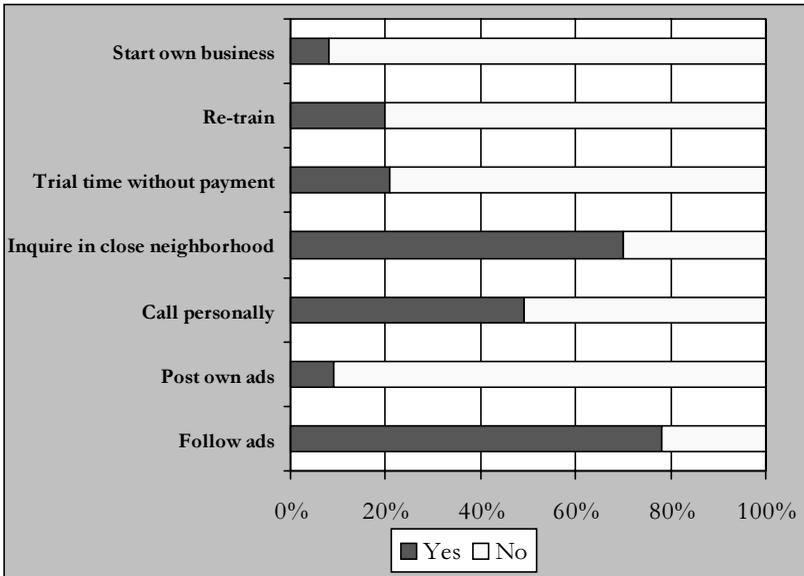
Sources of supplementary income to the welfare benefits



Note: the sum of yes answers is more than 45.5% (the percentage of unemployed who work in the informal sector) because some people report more than one occupation.

ANNEX 3

Strategies to fight unemployment



ANNEX 4
Multivariate Regression Model
Predictors of Work in Informal Sector

Variable	B	Sig	Exp (B)
OWNS LAND	.3073	.6257	1.3598
INPUT	.5481	.0276	1.7300
DEMAND	.4336	.1497	1.5428
HISTORY	.0537	.0014	1.0552
FEMALE	-.1987	.0452	.8198
EDUCATION	.3538	.1588	1.4245
BUCHAREST	-.7239	.0056	.4848
BACGROUND- INDUSTRY	.9429	.0005	2.5674
BACKGROUND TRANSPORTATION	1.3627	.0213	3.9069
WILLINGNESS TO CHANGE OCCUPATION	.0039	.1622	1.0039
PERSONAL ATTRIBUTES	-.0121	.9183	.9880
CHANCE	-.1707	.1963	.8431
FLEXIBILITY	-.1910	.0487	.8261
ACTIVE	.8729	.0008	2.3938
FIXED INCOME	-1.1044	.0001	.3314
Constant	.4871	.6819	

N=400

Nagelkerke - R² .350

Overall Correct Percent 73.25%

NOTES

- 1 One such study concluded that the share of the hidden sector in the US economy in 1979 was almost 30%. Other studies put the figure to 33%. If true – which seems unlikely –, the Romanian figure mentioned above looks rather like an underestimation (Skoka, 1989).
- 2 We use the common distinction between *gray* activities (legal in principle, but unreported and untaxed) and *black* ones (illegal *per se*).
- 3 Input and demand scores were summed up from the following items:
 - ‘An ordinary man can do little to help himself if he becomes unemployed’;
 - ‘People do not need much to live on’;
 - ‘The state would provide work for everyone’;
 - ‘The state should pay support aid for an undetermined period of time’ (DEMAND); ‘Industrious people can find a way to manage if they become unemployed’;
 - ‘You need to earn pretty well to live a decent life nowadays’;
 - ‘People who really look for it do find work in the end’;
 - ‘All that the state should do is provide an initial aid so that people can afterwards manage on their own’ (INPUT).
- 4 People were divided in the two categories of **ACTIVES** and **PASSIVES** using a score on a cumulated index, made of the following variables:
 - Asked for a job at the Unemployed Office;
 - Developed alternative strategies to find work;
 - Tried to find work in another town and abroad.
- 5 In the latter situation these people shouldn’t have been included in statistics in the first place, since they do not fit the basic definition of unemployment: individuals who are willing to work and look actively for a job. What we have here is a clear case of benefit-induced unemployment.
- 6 GDP/capita is not split down on regions in the official statistics, but we can infer at least the direction of the regional disparities looking at proxies such as the average wage, the share of the service sector, etc.

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