

# Hidden economy

## Undeclared employment and non-reported income: government policies and the reaction of economic agents

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### ABSTRACTS OF CHAPTERS

#### **The hidden economy and undeclared work: a survey of research findings and government policies**

*Mária Lackó, András Semjén, Mihály Fazekas and István János Tóth*

After a taking a quick glimpse at the definition and at measurement issues our paper presents various explanations of the hidden economy and undeclared work. Always lurking in the background of the emergence and existence of the hidden economy is some sort of government failure (a regulation problem). The benefits expected from participating in the hidden economy exceed its expected costs on a private level. The literature reveals that besides market and regulatory factors (e.g. tax system, especially tax rates and the quality of tax administration) the characteristics of individuals and the public's general view concerning the working of government (especially the scope and quality of government services and the level of corruption) also play an important role in the explanation of the hidden economy. These factors might explain cross-national differences in the significance of the hidden economy or undeclared work for countries with a similar relative tax burden.

The necessity for the regularisation of the informal economy is based upon the fact that the social costs of the hidden economy are far greater than its benefits for the society as a whole: the realisation of the disadvantages that the hidden economy imposes on society and its various groups, coupled with the creation of a certain public awareness do play an important role in tackling the issue successfully. Any successful government intervention against the hidden economy must be based on a complex set of measures. This complex 'package' must combine sticks and carrots, punishment or deterrence (increasing the expected private costs of participation in the hidden economy by raising the probability of getting caught and making the punishment harsher) with positive changes in incentives (moving towards a simpler and more transparent tax system and a decrease in marginal tax rates so as to diminish simultaneously the private benefits of informality and the costs of tax compliance), and at the same time it should strengthen the trust in government.

Studies on the hidden economy in Hungary point out that alongside the high tax wedge on labour and other problems of regulations (too few taxpayers, too small a tax base, too high marginal rates, too many loopholes provided by tax laws making it easy to avoid the payment of a fair contribution towards financing government expenditures) the shortcomings of the tax administration, the prevalence of corruption and the negative opinion on government performance all play a significant role in the explanation of its sizable scope. Given the complexity of causes and explanations of informality only a complex set of poli-

cies tackling simultaneously all the above-mentioned problems can successfully lead to a decrease in the share of the hidden economy.

### **The effects of tax rates and corruption on tax revenues – an international comparison of OECD countries from 2000–2004**

*Mária Lackó*

The paper examines the combined effect of the statutory tax rates (especially tax rates on labour) and the level of corruption on the variation of relative tax revenues (their ratio to GDP) in the OECD countries in 2000–2004.

The relationship between the interaction of tax rates with corruption and the relative tax revenues shows an inverse U-shape line, as if it were a Laffer-curve. However, according to our econometric analysis, this relationship is the outcome of several separate effects: the first is a direct positive effect of the tax rates on relative tax revenues, the second is a negative effect of the interaction between the tax rates and the level of corruption, and the third one is a negative effect of the interaction between the tax rates and the level of underdevelopment. This means that higher tax rates go together with higher relative tax revenues, but in each country the extent of this effect is modified by further factors: the higher the level of corruption and the more the country is underdeveloped, the smaller is the effect of tax rates toward increasing the relative tax revenues.

The econometric results allow us to calculate the shortfalls of tax revenues due to the interaction variables (tax rates with corruption and with underdevelopment). These shortfalls of tax revenues (as a percent of GDP) can be seen as indicators of the size of the hidden economy. The size of the shortfall of tax revenues in Hungary in 2004 reached 7 percent of the GDP. Higher shortfalls are experienced in Turkey (8.4%) and Poland (8%), while in Greece, Slovakia, Italy and the Czech Republic the calculated tax-shortfalls are around 6%.

### **Changes in the incidence of tax evasion – estimations with TAXSIM, an agent-based tax evasion simulator**

*Attila Szabó, László Gulyás and István János Tóth*

This paper introduces the TAXSIM model for the simulation of tax evading behaviour in a computational model of a single market sector. The agent-based model defines four kinds of agents: employee, employer, (tax) authority and government. The rate of tax evasion is an agreement between an employer and an employee that is made to reduce costs. During negotiations the expectations of both the employer and the employee depend on the estimated costs (e.g., fines or the costs of missing governmental services) and benefits of evasion and on the level of satisfaction the agents have with the government's services. The agents' expectations and satisfaction are the results of the agents' individual learning, based on their own experiences and on those in their social network.

The TAXSIM model produces market equilibriums with a wide variety of employment type distributions (there are 23 possible employment types in TAXSIM, ranging from fully legal to completely illegal). Moreover, the model provides means to test the agents' sensitivity to the frequency and adequacy of tax audits. The series of experiments reported in this paper analyze scenarios in which (1) the quality of governmental services increases permanently, (2) a market leader unilaterally adopts the legal position, and (3) multi-national companies with tax allowances enter the market.

### **Measuring undeclared employment in Hungary**

*Péter Elek, Ágota Scharle, Bálint Szabó and Péter András Szabó*

Measuring undeclared employment is difficult, for obvious reasons, and yet it is very important for the appropriate design of policies against tax evasion. This chapter presents estimates of the size and distribution of undeclared employment in Hungary based on the discrepancy method. The comparison of administrative (Pension Fund) data and Labour Force Survey (LFS) employment yields an estimate of unrecorded employment of around 16-17% of total employment for the years between 2001 and 2005. The share of undeclared employment appears to be above average among men, in Central Hungary (including Budapest) and in the South-East. It is also above average in certain occupations, such as blue collar workers in construction and personal services, machine operators, technicians and drivers.

These results imply that there is some scope for a strategy of fine-tuned targeting in enforcing tax compliance rather than across-the-board measures that impose extra costs in terms of high minimum social security contributions and administration on all low wage workers. At the same time, it is likely that a significant share of undeclared activities would not be viable at the current level of taxation and social security contributions, as the total cost of employing an unskilled worker tends to exceed their productivity. This implies that, unless it is supplemented by a sizeable reduction in wage costs, a further tightening of the enforcement of tax compliance would only lead to unemployment instead of an increase in registered employment.

### **“Whitening” the economy: sticks and carrots – Quantification of costs and benefits**

*Anikó Bíró and János Vincze*

It is well known that the size of the informal (black or grey) economy causes serious fiscal problems for Hungary. This study makes an attempt to quantify the budgetary and macroeconomic effects of different ways of widening the formal sector (“whitening”) with the help of a model.

It turns out that if only negative incentives were involved (better enforcement scenario) the real effects would be painful: reduced disposable income and higher labour costs would result in lower consumption, exports, and, *a fortiori*, GDP growth. Obviously, unemploy-

ment would increase, and less obviously, inflation would pick up. The trade-off between the reduction of public debt and macroeconomic equilibrium seems to be quantitatively unfavourable. The major alternative policy option is a positive incentives scenario. The simplest measure consists of a substantial reduction in the comparatively large social security contribution rate. Its positive real effects (lower wage costs would lead to higher export growth, GDP and consumption) appear slowly, but after the second year their size would be detectable. However, the negative impact on the budget deficit is immediate, and though the real effects would turn the tide eventually, the initial public debt increase would worsen public indebtedness significantly within 2 years.

Running scenarios under several “behavioural” assumptions, but fixing the current structure of the government finances, we could not find any possibility to simultaneously improve macroeconomic performance and reduce public debt by using the social security contribution rate as the chief vehicle of reform. Combining the incentive scenario with improved enforcement (principally by raising the effective VAT rate) would ameliorate the situation as higher export growth would still be the decisive factor for GDP. On the other hand, in this version higher inflation would constitute the main policy concern. Combining incentives with a cut in government investment spending is not necessarily alluring: it would require a very large reduction to undo the negative budgetary impact, while its negative demand effect would also undo the positive effects on GDP and consumption.

To summarize: better enforcement alone would be a socially counterproductive way to reduce government debt. The incentive scenario would work out well in the long term, but it would certainly create short term budgetary, and therefore, longer term debt problems. To avoid this, the incentive scenario must be combined with better enforcement and, possibly, with a significant expenditure cut.

### **EVA taxation in the light of interviews with enterprises**

*András Semjén, István János Tóth and Mibály Fazekas*

By introducing simplified enterprise tax or EVA in 2003, the government had a double aim: it wanted to relieve administrative and tax burdens on micro and small enterprises, while at the same time it wanted to improve their tax compliance, thus increasing tax revenues received from such enterprises. Mainly enterprises with a rather low (typically below 60 per cent) cost ratio opted for EVA. Our research is based on 33 structured interviews with enterprises paying their taxes under EVA rules, and focuses on changes in their tax behaviour due to switching over to EVA.

Our results suggest that tax evasion and avoidance has diminished in this segment of the enterprise sector. Sixty-five per cent of the interviewed enterprises reported complete tax compliance and legitimate operations, which can be considered a rather high rate given the high involvement of smaller enterprises in the hidden economy. Tax evasion has decreased even among the remaining part of the interviewed enterprises under EVA: although enterprises in this group reported some minor violations of the tax laws, nevertheless even these

were mainly prompted by their buyers' demand for purchasing tax free and with no invoice. The share of unreported sales remained below 1/4 of sales revenues even within this group. The empirical evidence gathered from our interviews does not support the frequently held belief that EVA after all has increased the scope of the underground economy by the issuing of fictive invoices or by converting lawful employment into (pretended) subcontracting to former employees. The positive overall effect of EVA on tax compliance is due to two main reasons, according to our findings: most taxpayers under the EVA system find their tax burden fair and acceptable, while at the same time the simplicity and transparency of record-keeping and tax rules for enterprises under the EVA system increases the expected costs of tax evasion within this group of enterprises.

**Employment with a temporary work booklet: a study based on interviews with employers and employees and on a survey of casual workers**

*András Semjén, István János Tóth, Mihály Fazekas and Ágnes Makó*

The study aims at answering the following questions: (1) What characterizes enterprises and workers using the temporary work booklet? (2) In what ways do actors on the labour market use the booklet? (3) What motivations drive the economic actors when they decide about the ways of using the booklet? (4) What effects does the temporary work booklet have on hidden employment? We also try to arrive at some conclusions relevant to the general functioning of the Hungarian hidden economy. The study is based on semi-structured interviews with employers and employees using the booklet and on a survey of casual workers.

Our main results are the following. (1) The temporary work booklet is mostly used for seasonal or temporary employment, in accordance with the intentions of the legislator. (2) Nevertheless, in most cases the booklet is not used in compliance with the specific rules of the relevant regulations. As the actual administrative rules concerning the use of the booklet provide ample opportunities for non-reporting or underreporting of employment periods and income at a relatively low risk of detection and punishment, abuse is relatively widespread. (3) Decisions whether to evade taxes in the course of temporary employment are mostly influenced by a rational calculation of costs and benefits associated with evasion. (4) Many previously unreported workers in illegal employment have gained semi-legal or legal employment status thanks to the booklet (5) However, the booklet may have some unintended adverse consequences as well: in some cases employers may convert normal employment status into temporary employment, thus taking advantage of the booklet in order to reduce their taxes. (6) All in all, the balance of the contrasting effects of the temporary work booklet is likely to be positive. Our results suggest that the whitening effect of the booklet (its success in the partial regularization of former hidden employment) may outweigh its unintended negative effects on permanent employment. (7) The clarification of the links between the hidden economy and temporary employment based on the regulations concerning the use of the booklet has shown the importance of trust and stable relations between economic actors engaging in hidden transactions. Our

results also revealed that a significant group of economic actors does not disapprove of tax evasion, and only partially accepts tax compliance. (8) Our results also clearly suggest that experiencing spells of unemployment directly (by the employee) or indirectly (by family members) may facilitate the acceptance of irregular forms of employment leading to such forms of remuneration that are often conducive to tax evasion or avoidance.

### **Dilemmas of enterprises leaving the hidden economy**

#### **Case study – messenger service providers in Budapest, 2006–2008**

*Mihály Fazekas*

Some of the enterprises providing messenger services in Budapest radically decreased their involvement in the hidden economy in summer of 2006, which provides for a unique opportunity to study the dynamics of private decisions concerning tax evasion and hidden employment. Through interviews with CEOs of major companies on the market and a few of their employees, the study focuses on the following: from which motivations, according to what conditions and based on which strategies did the enterprises change their tax paying behaviour?

Furthermore, the success and downsides of such strategies were examined. According to the results, the key ingredients for changing the involvement in the hidden economy are: the moral costs of the CEO stemming from illegal tax paying practices, and the subjective appraisal of operating in the hidden economy. Nevertheless, these factors can only lead to alterations in the degree of tax evasion if the financial situation, market position of the enterprise, and its relations towards customers and employees can provide a solid basis for covering the additional costs of fulfilling all legal obligations. These factors, in turn, determine the slices of these extra costs each involved actor has to bear.

The main findings suggest, firstly, that governments can successfully fight the hidden economy through targeted state intervention on certain points of the cost-benefit relations within the hidden economy. Secondly, decreasing the administrative burden of enterprises and clear communication of regulatory intentions motivate economic actors to reveal their hidden economic activity. Lastly, tax amnesties entail relatively low long-run costs in an economic environment where following the norms is not well established.

### **Institutional environment, contractual discipline and tax behaviour of Hungarian enterprises**

*András Semjén and István János Tóth*

This paper is based on four consecutive enterprise surveys (1996, 1998, 2001 and 2007) of medium and big enterprises, using similar questionnaires in each survey. The comparison of survey results suggests that tax compliance (tax discipline) has improved in this segment of the economy during the period as a whole. Unfortunately, after 2001 the rate of this

improvement slowed down significantly. Company opinions regarding the formal institutional environment, including the tax system show a marked deterioration after 2001. Tax laws and regulations have become more complex, awkward and less transparent, and these changes have a negative effect on enterprises. At the same time company opinions on the operation of the tax authority have improved further even during this period.

Improving tax compliance was partly due to structural changes in the economy and the sample (composite effect); nevertheless, the actual behaviour of the different types of firms has also improved considerably according to survey results. Based on the firms' opinion regarding the frequency of tax evasion amongst their competitors tax evasion (sales without an invoice) has probably been losing ground in this segment of the economy, and its distortionary effects on the firm's position and competitiveness have also weakened.

The picture on contractual discipline seems somewhat blurred: while the contractual discipline of firms regarding timely delivery weakened considerably between 2001 and 2007, the discipline of payments of their buyers has improved somewhat. However, a closer look reveals that this improvement in the discipline of payments is almost completely due to structural (composite) effects.

Provided that our results regarding the perception of corruption faithfully reflect the actual situation concerning the relations between public institutions and the private sector in general, corruption seems to be wide-spread. Our results indicate that corruption has been almost institutionalised for certain types of transactions. Sectoral effects also do play an important role in corruption according to our results: firms in the construction sector report corruption far more frequently than firms in the rest of the economy.

Our results indicate the existence of a positive relationship between the perception of corruption and the hidden economy, and they also support that there is a positive relationship between opinions on the institutional environment and the perception of tax evasion. Such results underline the importance of the quality of the formal institutional environment and its effect on tax behaviour and compliance: more efficient formal institutions working more transparently further the improvement of tax compliance. Thus making tax laws and regulations simpler and more transparent, improving the formal institutional environment of enterprises might in itself also contribute to the reduction of tax evasion, corroborating the positive effects of stricter tax inspections and increasing fines and punishments.

### **Tax evasion and corruption: population involvement and acceptance**

*András Semjén, István János Tóth, Márton Medgyesi and Ágnes Czibik*

The paper presents survey results of opinions and attitudes of the 18–60-year-old Hungarian population concerning tax evasion and corruption, while it also examines the actual and intended behaviour of the economically most active segment of the population concerning these matters, and explores the socio-demographic factors determining this behaviour. After presenting some basic sample characteristics, we investigate the scope and prevalence of hidden employment (both unreported employment and employment masked

as a contract with a subcontractor), its underlying social and economic factors and the main reasons behind accepting or turning down work offers in the hidden economy. Our results suggest that the selection of the particular form of tax-saving employment, i.e. the choice between accepting black employment (receiving unreported wage directly into one's own pocket) and employment masked as "pretended subcontracting" is strongly determined by the worker's socio-economic background. Accepting black employment (unreported wage) is more prevalent amongst those on the periphery of the labour market, while "pretended subcontracting" occurs more frequently amongst graduates and those working in public administration, health care, education and culture. We also investigate the extent to which the respondents engage in purchasing products and services from the hidden economy. Men purchase from the black economy more often than women, and those living in Budapest also buy products and services from the black economy (thus evading VAT payments) more frequently than the rest of the population. Although it seems logical that members of families with low incomes are more likely to engage in unreported transactions, our results do not support this hypothesis.

Laws and regulations concerning the economy are generally considered deeply problematic and impossible to comply with. Only one-fifth of respondents think that those who violate the law are criminals, while one-third of respondents are of the opinion that if everybody obeyed the law the economy would be paralyzed. Most respondents disapprove of corruption: although 61% of them consider corruption indispensable sometimes, 62% consider corruption to be completely unacceptable and intolerable. There is strong disillusionment in major social institutions: corruption amongst civil servants and the police is considered widespread. Twenty eight per cent of respondents are of the opinion that most policemen are corrupt.

We also look at the reactions of respondents to actual and hypothetical situations in which reliance on tax evasion and/or corruption seemingly offer a relatively easy and favourable solution. Answers to questions on hypothetical situations can serve as a control of our results on actual behaviour. Those who attach a higher estimate to the share of income that individuals in their neighbourhood receive from the hidden economy would be more likely to rely on illegal but economically favourable solutions (such as tax evasion or corruption). It seems startling that while only 10% of those caught in a traffic violation actually tried to "smooth over" the consequences of their offence by resorting to "corrupt measures", 30% presumed that in the police's handling of the violation there were clear indications suggesting that resorting to corruption would have evidently been a viable option for them.