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Hidden Economy in Hungary 1992-1999

Budapest, May 2002

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Abstract

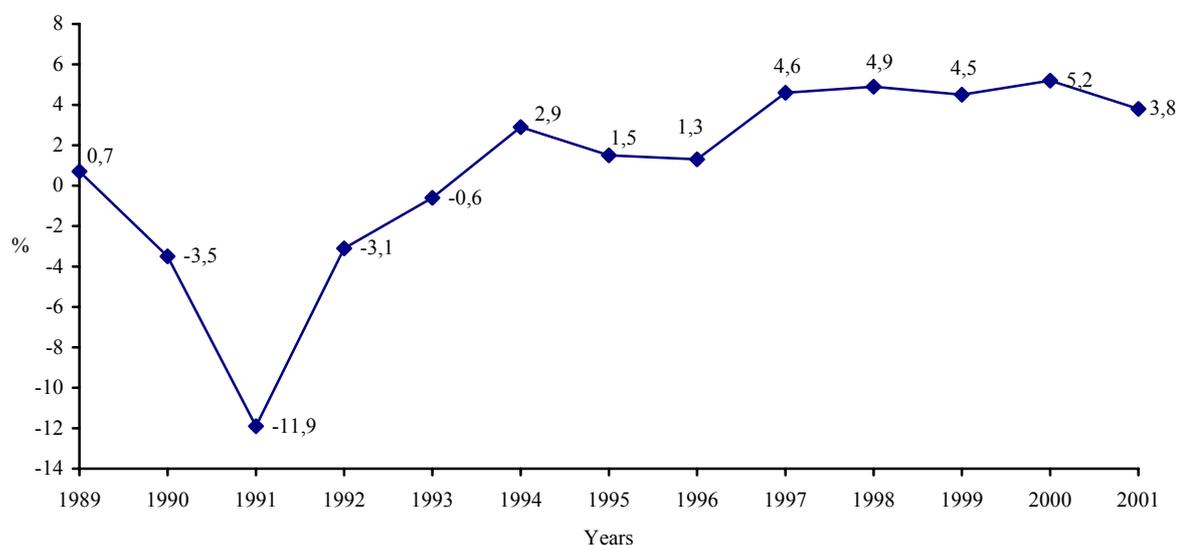
This paper analyses the dynamics of hidden economy in Hungary in the transition period. Based on several empirical findings we argue that the proliferation of hidden economy came to a halt in the middle of the 1990s then as the GDP began to rise after a long recession period it started to shrink. One of the necessary consequences and accompanying factors of economic transformation is the increase of the weight of the hidden economy manifest at the start of the transformation. We estimate that this tendency reversed with the strengthening of private economy, consolidation of the system of market institutions and the unfolding of economic growth: the attitude of economic actors to hidden economy changes and, as a result, the weight of hidden economy starts to decline.

1. Introduction

Economic research on hidden economy in Hungary revealed an increasing tendency in the 1980s representing about 27% of the official GDP in 1992 (Lackó, 1992 and Árvay-Vértes, 1995). Subsequent research pointed out that the process continued well into the 90s (Lackó, 1997). We consider the outputs of the following economic activities to belong to the hidden (or unregistered, informal) economy: a) the activity of unregistered enterprises that pursue legal activities but are not registered; and b) registered (state or private owned) enterprises conducting unreported or underreported activities.

In our paper we argue that the proliferation of hidden economy came to a halt in the middle of the 1990s then as the GDP began to rise after a long recession period (Figure 1) it started to shrink.

Figure 1.
The growth rate of GDP in Hungary 1989-1999, %



Sources: CSO Statistical Pocketbook 1992, 1994, 1996, 1998 and 1999, 2000, www.ksh.hu, and estimation

Several macro economic and company level factors contributed to this trend, e.g. the a new phase of the structural transformation followed the transformational recession, profound changes occurred in the organizational structure and adaptability of the Hungarian firms. The privatization of state-owned enterprises is finished till 1996-97, except some strategic firms. The share of private sector in the GDP rose between 1992-1999 from 46% to 70%. Beginning from the mid-90s, the consolidation of market economy institutions has been accompanied by an improvement in the business perspectives of companies. Such tendencies could not but leave a mark on the attitudes of

business actors (firms and households), including their attitude to taxation – though the financial discipline of the still state-owned firms remained weaker than among private (especially foreign owned) ones. The consolidation consequently influenced the size of hidden economy

With the apparent upturn of the economy after 1996, the long-term benefits available through the formal economy became increasingly certain, whereas the short-term ones available through the hidden economy devalued and became more uncertain. Tax burdens of the legal economy started to decline apparently as early as from 1993 (e.g. company tax rate dropped from the earlier 36% to 18%) and, with the tax authority becoming increasingly professional and its technical infrastructure more sophisticated, and the tax laws becoming increasingly transparent and costs tied, the hidden economy started to diminish.

2. The trends of the 1990s

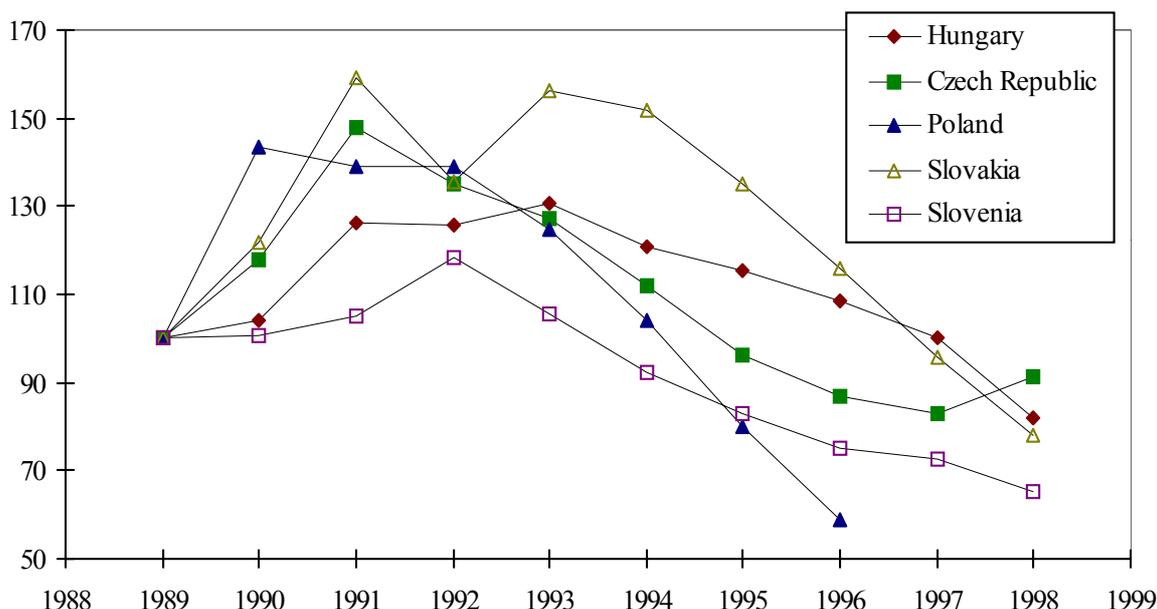
The most general analysis of the shift in the volume of hidden economy since the outset of the economic transformation has been done by Lackó (2000). She used an econometric model examining the components of the electricity consumption of households to assess the weight of hidden economy between 1989 and 1998 based on data of 17 post-communist countries¹.

As her results suggest, in the period surveyed high tax burdens, relatively low state expenses, major drop in output and high inflation induced an extraordinarily high level of domestic electricity consumption relative to the level that would have been justified by the size of consumption, the proportion of agricultural output, climatic weather conditions and the proportion of other types of energy. The key factor in explaining this extra electricity consumption is imputed to be the prevalence of hidden economy.

The results of the predictions with regard to the tendencies of hidden economy seem to indicate that hidden economy follows an inverse U curve in more advanced former socialist countries (Czech Republic, Hungary, Poland, Slovakia, Slovenia) in the period between 1989-98 (Lackó, 2000). Her calculations demonstrate that in the first phase of the transition hidden economy can be assumed to have grown quickly and to a great extent, followed by a gradual decline of the hidden economy as the institutions of market economy started to consolidate and the economy started to grow subsequently (Figure 2). Hidden economy declines in each country to the extent, as the above process is moving ahead.

¹ She has used the broader definition of 'hidden economy' than we use in this paper. Her household electricity approach involves that her concept of hidden economy takes into consideration work done at home and do-it-yourself activities as well.

Figure 2
Assessed trends in the proportion of hidden economy in selected Transition Economy (1989= 100%)



Source of data: Lackó, 2000

According to Lackó's computation the weight of Hungarian hidden economy changed relative to the official GDP from 25.2% of 1989 to 20.8% by 1998, whereas it reached its peak in 1993 (33.1%).

Several studies substantiated the validity of the previous observation with regard to the declining tendency of the weight of hidden economy in Hungary since 1996. Tóth (1997-98), Sik-Tóth, (1999) and KSH (2000) proved it by analyzing the household consumption patterns, Tóth - Semjén (1998) and Semjén (2000) on the field of the contractual and taxation behavior of firms, Sik (1999) regarding "open-air" and informal labor market-places (Czakó-Sik, 1999, Sik-Wallace, 1999) found similar trends.

2.1 The consumption behavior of households

Hidden economy – as defined in the beginning - had a decisive weight in Hungary in certain fields of consumption of households in the middle of the 90s. Indicative of this have been the surveys that analyzed, on the basis of three empirical surveys of households, the affinity of households to hidden economy and the weight of hidden economy in commerce and services. The first and the second survey covered 1000 households each in 1995 and 1996 respectively (Tóth, 1997-98) and Sik-Tóth (1999), the third one was carried out by the Central Statistical Office (KSH) in 1998 covering over 2600 households (KSH, 1998).

Both surveys in 1995 and 1996 pointed out that significant variations could be discerned among the various groups of goods and services in the consumption of the households in terms of the manifestations of hidden economy (Table 1). Households purchased 10% of alcoholic drinks, 15% of coffee and cigarettes, close to 40% of lingerie, 27% of shoes and 12% of washing powder and liquid without the transaction ever having been registered by the seller (Sik-Tóth, 1998). The same proportions were considerably higher in the area of services. In some cases, like the hairdresser and beauty parlors the weight of the hidden economy amounted to as much as 80%. In the case of masonry 70% of all payments can be assigned to hidden economy. In medical services, mainly due to the accepted practice of gratuity moneys, 80% of the money paid to physicians and close to 97% of moneys paid in hospitals can be tied to hidden economy.

If taking the total consumption of households into consideration the ratio of unregistered expenses was around 10-13% in 1995 and 11-14% in 1996, which indicates a stagnation of weight of unregistered expenses. This ratio did not change in 1997 either (KSH, 1998).

Table 1
The proportion of unregistered expenses* within the different groups of expenses in Hungary in 1995-96

Groups of expenses	Average ratio of unregistered expenses (%)	Ratio of unregistered expenses in the surveyed household expenses (%)			Total (N)
		Zero (0)	Not more than average (1)	Above average (2)	
1. Consumer goods	11.2	85.5	14.5	-	100.0 (1361)
2. Clothes	36.4	52.2	9.5	38.4	100.0 (1170)
3. Other goods	14.0	71.4	6.6	21.9	100.0 (1893)
4. Services	53.8	14.8	32.4	52.8	100.0 (1702)
5. All expenses (1+2+3+4)	27.0	16.2	45.6	38.2	100.0 (1980)

Notes:

* Unregistered expenses = household expenses when the sellers do not report the transaction to the Tax Authority.

The case numbers are in the brackets.

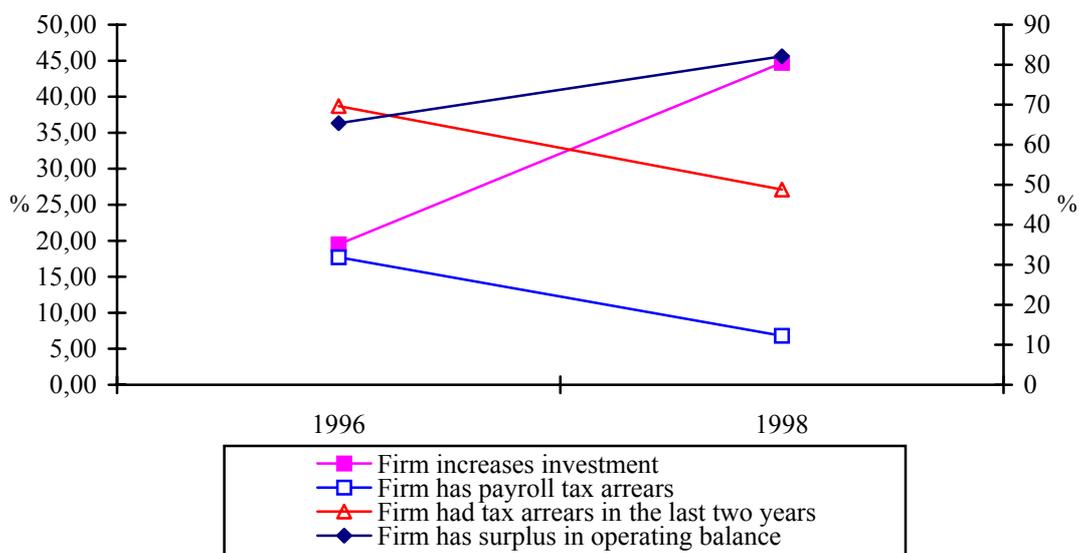
Source: Tóth, 1997-98

2.2 The behavior of firms

In the period of early transition in a situation where firms lost their markets to a dramatic degree the survival of the firm depended on the temporary relief provided by delaying the payments to suppliers or to the tax authority (Laki, 1994). Tax arrears became more prevalent in the first years of transformation. Payroll tax arrears nearly doubled in Hungary during 12 months starting from 1990 December (see Laki, 1994: 361). An increased reliance on tax avoidance and evasion can provide another survival strategy: the management's efforts to minimize tax liabilities in a legal or illegal way (i. e. by taking advantage of loopholes or by shifting part of the enterprise's output from the visible to the hidden economy) may be of crucial importance temporarily.

The analysis of empirical surveys of medium sized and large (in that time very largely private) businesses carried out in 1996 and 1998 indicated that while medium sized and large businesses perceived their business perspectives as being more favorable, the time horizon of their planning grew, their profitability improved and their output accelerated, their financial discipline improved considerably (both their tax compliance and contractual discipline) (Figure 3) and they perceived to a lesser extent that their business partners or their competitors would be involved in hidden economy (Tóth – Semjén, 1998).

Figure 3
Change of business condition and financial discipline of medium sized and large firms between 1996 and 1998, %



Source: Tóth – Semjén, 1998

Note: Left scale = payroll tax arrears, investment increase
Right scale = tax arrears, surplus

The results of the research among top managers concerning tax compliance and tax evasion suggested that a perceivable change was starting to take shape in the period between 1996 and 1998 pointing towards the decline of hidden economy (Table 2).

The analyses also pointed to the fact that while the probability of unreported sales was significantly higher among suppliers of companies with majority Hungarian ownership in 1996, in 1998 tax compliance had significantly improved among them. All managers assess the prevalence of unreported sales to be of a smaller volume than before and they are affected to a lesser extent than two years before by the involvement of their competitors in the hidden economy.

The authors assessed the proportion of tax evading firms to be not more than 23% in 1997 (Tóth–Semjén, 1998). This result points to the fact that the phenomenon of tax evasion was rather widespread among Hungarian firms in the latter half of the 90s, yet it can also be stated that such behavior was not typical of the majority of medium sized and large Hungarian firms.

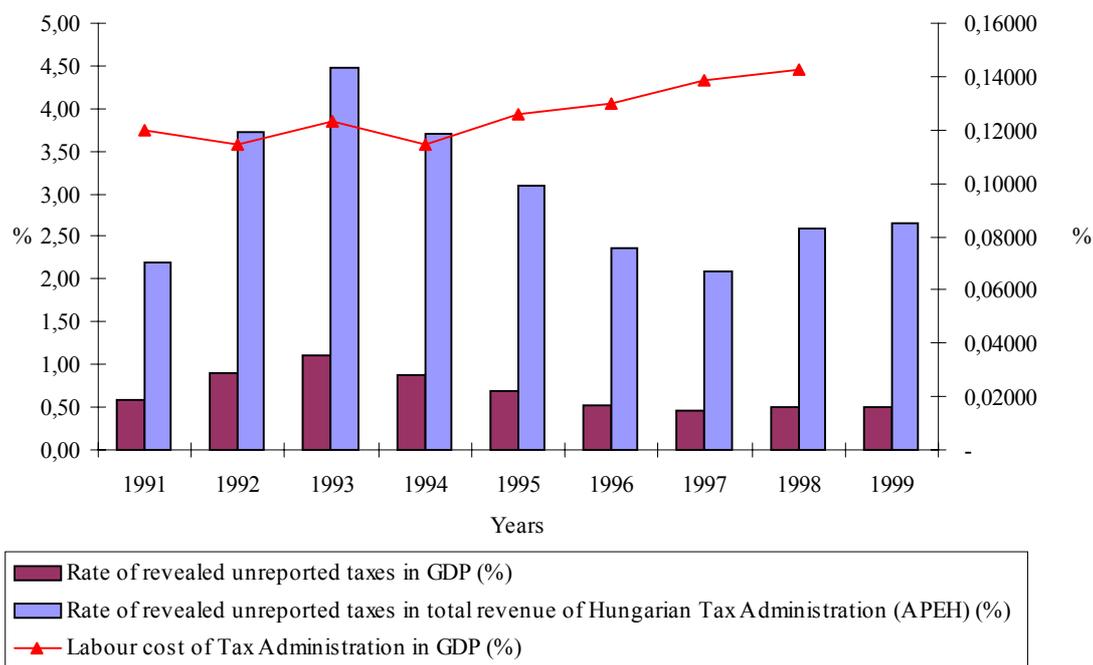
Table 2
Change of business condition, financial discipline of medium sized and large firms and estimated involvement in the hidden economy in Hungarian enterprise sector between 1996 and 1998, %

		1996	1998
Firm increases investment	Yes	19.5	44.7
	Total	100.0	100.0
	N	277	296
Surplus in operating balance	Yes	65.4	82.1
	Total	100.0	100.0
	N	289	295
Firm has payroll tax arrears	Yes	17.7	6.8
	Total	100.0	100.0
	N	293	299
Firm has tax arrears in the last two years	Yes	38.7	27.1
	Total	100.0	100.0
	N	293	296
Unreported sales in the Hungarian economy....	Insignificant		1,2
	Rare	10,6	18,4
	Frequent	89,4	81,4
	Total	100,0	100,0
	N	274	272
Do your competitors' connections with the hidden economy have an adverse effect on your competitiveness	Not at all	28,8	38,5
	To a small degree	31,0	27,9
	To a great degree	40,2	33,6
	Total	100,0	100,0
	N	271	276

Source: Tóth–Semjén, 1998.

The final factor we have not mentioned yet but which is closely related to the diminish of hidden economy is the increasing efficiency of tax administration. Semjén et al., 2000 arrived at the conclusion that the proficiency of tax administration improved between 1992-99. However, even if considering this tendency of professionalization it can also be demonstrated that the size of unreported taxes failed to follow the increased frequency of tax control towards the end of the 90s (Figure 4). This fact cannot but be explained as an indirect sign of the improved tax compliance and the decline of tax evasion by the economic actors, though after 1997 we can also see a slight rise.

Figure 4
Rate of revealed unreported taxes in GDP and in total revenue of Hungarian Tax Administration (APEH)



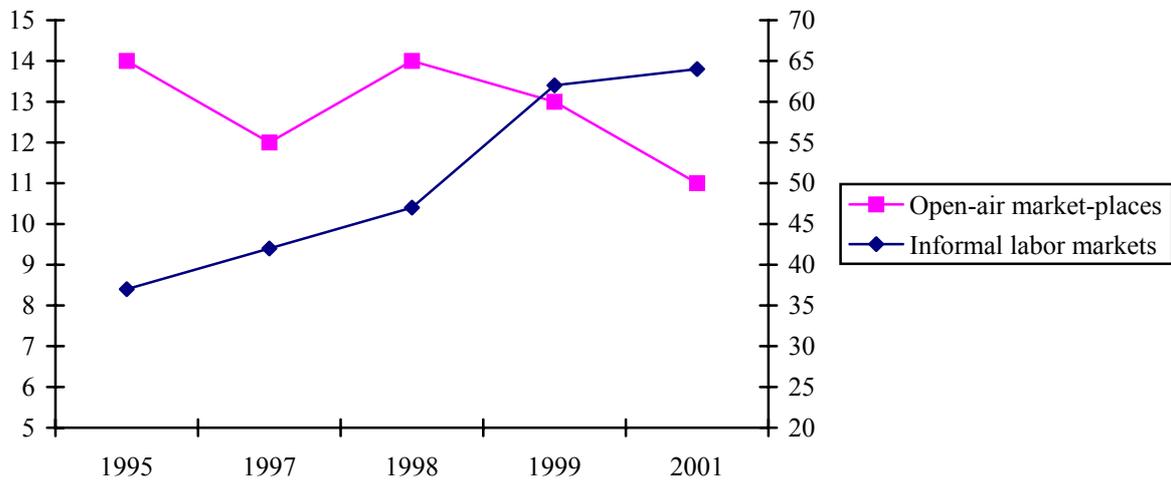
Source: Semjén - Szántó - Tóth, 2001.

Note: Left scale: revealed unreported tax in GDP and in total revenue of Tax Administration
Right scale: Labor cost of Tax Administration in GDP

2.3 "Open-air" and informal labor market-places

While the slightly decreasing trend of the spread of open-air markets fits into the general trend of the shrinking hidden economy, the spread of informal labor markets show a sharp increase (Figure 6).

Figure 5.
The spread of open-air and informal labor markets in (1995-1999, % of all settlements)

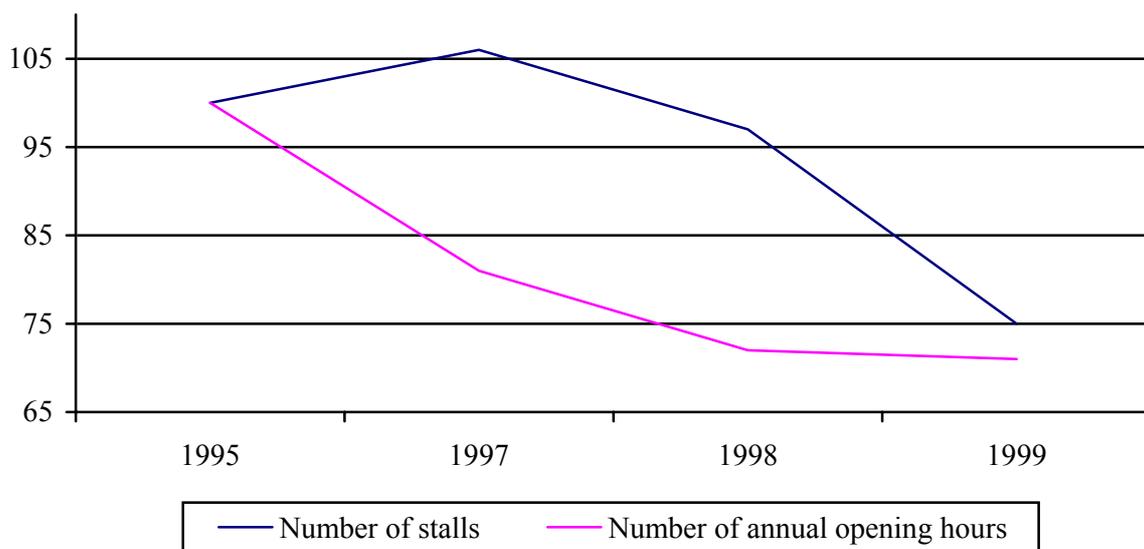


Source: Sik 1999, Simonovits 2001

Note: Left-hand scale: Open-air market places
Right-hand scale: Informal labor markets

If we look behind the slight decrease of open-air markets we see a slower decrease of the number of stalls (i.e. of trader) following a faster decrease of the opening hours (Figure 6).

Figure 6
The trend of the number of stalls and of annual opening hours of open-air markets in (1995-1999, 1995=100%)



Source: Sik-Tóth (1999)

This implies that while the spread of the open-air markets is rather stable (Figure 5), the volume of this informal commercial institution is shrinking (Figure 6). The process of it is that first more traders tried to reduce the number of opening hours, later on more and more trader left the field.

As to the details of the opposite trend (the increasing spread of informal labor market) Table 3 shows that while the traditional „slave markets” (the pubs and their modern form, the cafeteria) are still important it is the personal network based loose organization of informal labor market which is on the rise.

Table 3
The spread of the different types of informal labor marketplaces (in settlements with informal labor market, %)

	Pubs	Train- or bus-stations	Open-air market-places	Streets, squares	Personal networks	Cafeterias	Fringe of cities, towns
1995	74	4	7	16	31	22	11
1997	74	3	8	8	57	21	13
1998	53	1	3	3	89	11	3
1999	57	1	5	5	90	16	4

However, as the following chapter (Sik in the book) shows on the largest local labor market (Budapest) there still operates a major informal labor market-place.

3. The social determinants of the hidden economy

As we saw before, during the 1990s the hidden economy represented a decisive weight in the consumption of the households (Table 1). This, however, did not mean that hidden economy was an experience equally present and of an equal weight in all Hungarian households.

Namely, in the expenses of the respective households the procurement of goods and services represented and continues to represent a considerably varying weight. Close to 30% of the households have not or have hardly spent at all in an unregistered form, whereas in as many as 10% of all the households the value of unregistered purchases amounts to over half of the total expenses surveyed. If ranking households on the basis of the proportion of unregistered expenses, a declining number of households fall into the intervals characterized by a high proportion of unregistered expense. In other words, although the overwhelming majority of Hungarian households were involved as a buyer at least in one transaction qualifying as a hidden economy transaction in 1995–96, the proportion of the goods purchased in such transactions is significant only in a little fraction of the households surveyed.

The assumption appears to be apparent that to be involved in the hidden economy is strongly related to the level of household income. Less affluent households reveal a higher proportion of hidden economy related costs than more affluent ones since forced consumer adaptation is more likely to occur in less affluent households, a manifestation of which is the increasing weight of unregistered expenses facilitating cheaper bargains within the overall expenses of households. Less affluent households are rather more price- than quality sensitive (Galasi–Kertesi, 1985).

The other assumption is related to the social status of the households. Where the head of the family is more qualified and has a higher social status, the household will spend less on goods and services in unregistered forms, than households at lower rungs of the society. The underlying assumption is that in consumer decisions of households composed of more qualified members, factors unrelated to the price level (guarantee safeguards or customer satisfaction through brand loyalty) play a significant role.

It can also be assumed that the affinity to unregistered expenses is related to the perceived, instead of the real income situation and to the dynamics, instead of the actual level of income. Those who perceive their financial situation poor or declining are more likely to spend in unregistered forms, i.e. the proportion of unregistered expenses is higher in the expenses of those who are able to increase

their incomes to a lesser extent than the average. The reason for this behavior is that those more frustrated due to their income situation tend to be more impatient and are more willing to purchase cheaper products and services in the hidden economy to improve their consumption level.

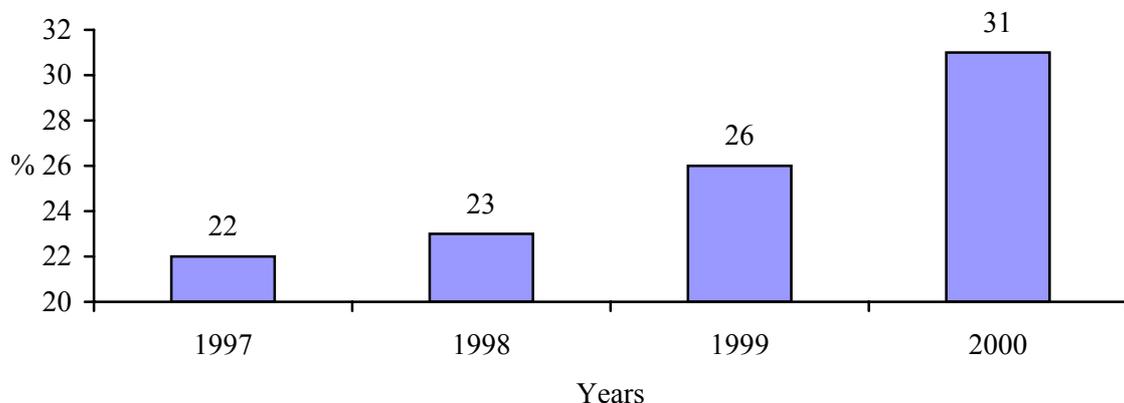
According to an econometric analysis of household surveys (Tóth, 1997-98), however, the above mentioned factors have little to do with hidden-economy related consumer decisions of households. First of all, it is an illusion that the involvement in hidden economy would only have been the „privilege” of less affluent households. Just on the contrary, the income level of households in the middle of the 1990s had nothing to do with their decisions related to hidden economy. Neither the income- nor the social status of the head of the family revealed any significant correlation with the affinity to unregistered expenses. Nor is it possible to confirm the assumption according to which purchases in the „open-air markets” or without guarantees would have been characteristic only of the less affluent layers of the society. In the mid-1990s the rich were as likely to shop around on the open-air markets as the members of less affluent households.

These results directed our attention to the fact that the affinity of households to unregistered expenditures be closely related to the type of the settlement where the household resides. One can assume – *ceteris paribus* – a higher proportion of unregistered expenses among inhabitants of larger settlements than among those of settlements with fewer inhabitants. This can be ascribed to two factors: on the one hand the distribution of the possibilities for unregistered purchases in accordance with the size of the settlement. On the other hand, „open-air markets” of larger settlements are larger and their opening hours are longer than of the smaller ones (Sik, 1999). Another important factor is how *easily* actors involved in unregistered transactions *can reach each other*, namely e.g. what is the chance of the members of the households to get to the closest „comecon market”.

The role of hidden economy in household consumption and all the indicators related to the size of the settlement reveal a strong positive correlation if considering either the number of the inhabitants and the commercial outlets at the settlement or the type of the settlement (village, cities, Budapest). Similar is the influence of the public transport means: the easier is the accessibility for the household by public transport means at a certain distance (by bus or train), the more important the role of hidden economy is in the consumption.

Finally, the size of the hidden economy is affected by the purchasing customs of households as well as the changes of these customs. The proliferation of large shopping malls among commercial businesses and the growth of their share in total turnover considerably reduce the purchases of households in hidden economy markets. In this context it could be noticed from 1995 that households increased the weight of their „large-scale” purchases in large shopping malls within their total purchases (Figure 7).

Figure 7
Share of shopping malls and supermarkets in the total purchases of consumer goods of Hungarian households, %



Source: GfK Market Research Institute

4. Conclusions

In the period of transformation numerous factors drive the increase in the weight of hidden economy. The majority of these factors cannot be avoided, their impact cannot be eliminated, only reduced at the most or rather more likely the length of the period during which they can have impact can be reduced (through actions promoting the development of the institutions of the market and of private economy).

One of the necessary consequences and accompanying factors of economic transformation is the increase of the weight of the hidden economy manifest at the start of the transformation. We estimate that this tendency reversed with the strengthening of private economy, consolidation of the system of market institutions and the unfolding of economic growth: the attitude of economic actors to hidden economy changes and, as a result, the weight of hidden economy starts to decline. Naturally this hypothesis needs longer time series to be tested.

In the meantime, however, some factors typical of countries in transformation have to be taken into account due to which, in the long run, hidden economy will probably be present at a higher level than it is assumed to be at in more advanced countries. Among such factors is the fact that, during the transition, masses of the active population have been dislocated from the labor market and became inactive² (whereas the upturn of the economy results in a slightly perceivable increase in the activity rate), but also such factor is the widespread acceptance of non-compliant behavior, low taxation morale in which regard only slow improvement can be expected: there is always high inertia in economic behavior.

The weight of hidden economy, however, cannot merely be traced back to the impact of spontaneous processes. The government, even if only with limited means, is capable of influencing it and of motivating, through co-ordinated steps, actors of the economy to refrain from involvement in hidden economy.

² The employment ratio (number employees in per cent of the working age population) fell radically from 75,9% in 1990 to 58,4% in 1997 in Hungary. See Fazekas. 2000, page 244.

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