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**MEASURING THE NON-OBSERVED ECONOMY IN NATIONAL ACCOUNTS**

**ILLEGAL ACTIVITIES**

**Estimating illegal activities in Croatia**

Note by the Central Bureau of Statistics of the Republic of Croatia

*Summary*

The paper gives a short overview of the estimates of illegal activities in Croatia, which were carried out within the Project on measuring the non-observed economy (NOE) in Western Balkan Countries. Methods and data sources used in the estimation of narcotics distribution, prostitution and trafficking of people are described.

## **I. INTRODUCTION**

1. Despite the practical difficulties in obtaining the data on illegal production, it is included within production boundary defined by the System of National Accounts 1993 (SNA 93). The paragraph 6.32. of the SNA 93 states that the examples of activities which may be illegal but productive in economic sense include the manufacture and distribution of narcotics, prostitution and similar activities.
2. Since these activities are illegal, by definition it is not possible to measure these activities using standard statistical system. Therefore a lot of efforts have been made in order to obtain relatively reliable estimates. In the estimation of the values of these activities, data on criminal activities from various sources have been used, such as the statistical data from the Ministry of Internal Affairs, the Croatian National Institute of Public Health, the findings and the reports of the State Inspectorate of the Republic of Croatia and the expert' s opinion.

## **II. ESTIMATED ILLEGAL ACTIVITIES IN CROATIA**

3. Estimates of illegal activities have been made within the Project on measuring the non-observed economy (NOE) in Western Balkan Countries. Project was carried out in two phases. The Central Bureau of Statistics (CBS) made a detailed assessment of illegal activities in Phase I, including narcotics, prostitution, counterfeit-goods, trafficking and corruption. However, according to an Intermediary report on Phase II, it was clear that some estimation and conceptual problems existed. First and foremost was the issue of corruption. Much, if not all, of this "activity" is outside the production boundary. Because of that, CBS decided to remove corruption from its estimates. Estimates of prostitution made in Phase I look to be underestimated and it has been suggested that CBS examine the city-by-city approach to assess how realistic are the estimates of numbers of prostitutes. Following the instructions by OECD expert<sup>1</sup> the additional research on prostitution has been done. There was also a problem with counterfeit production of video cassettes and DVD's. As this is estimated at only 0.01% of GDP, it was removed from the estimates.

## **III. NARCOTICS**

4. Society's efforts to prevent the abuse of narcotic drugs are shown through repressive and preventive action taken by relevant public institutions. The aim of repression is to reduce drug supply on the black market, whereas the prevention is aimed at drug demand reduction.
5. Traditional approach of solving the drug problem is based on the repressive methods which try to remove drug from the market and to sanction delicts related to the abuse of narcotic drugs. Contemporary fight against drugs is more concentrated on demand. Drug demand reduction is obtained by education, raising consciousness of potential drug consumers, medical treatment, breaking the habit and resocialization of drug addicts.

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<sup>1</sup> Mr. Nadim Ahmad

6. Liberalised regulation related to circulation of goods and people across the state border and various anomalies and crises of contemporary society have contributed to the expansion of criminality referring to production, distribution and consummation of narcotics.

7. The **narcotics distribution income** estimates are based on the data on the confiscated quantities of narcotics according to the type, the estimate of police efficiency and the narcotics prices at the entry in Croatia and in sale to the final users. The police efficiency has been estimated to the confiscation level 20% - 33% (average 25%) of the total amount of narcotics distributed on the black market. Also, the assumption is that the estimated purchasing price paid for the "imports" of greater quantity of narcotics in Croatia is on average 20% of the sale value of the same drug sold in smaller quantity to the final users. This means that remaining 80% of the retail price value represents the narcotics distribution income on the Croatian market. The profit ratio depends on the narcotics type, quantity of narcotics, the purity of imported narcotic in relation to the purity of the product for the final user, the origin of narcotics, the means of transport, the time of purchase, the market conditions, the quantity of single buying-selling transaction within the country, length of distribution channel – number of intermediaries, import and distribution risk and lots of other factors.

8. Table 1 shows data on estimated values and total income generated through "successfully" distributed narcotics on the black market in Croatia.

**Table 1. Estimated values and total income generated through "successfully" distributed narcotics on the black market in Croatia in the period 2000-2003, in HRK**

	2000	2001	2002	2003
Value	1.452.207.415	94.892.558	125.309.639	673.767.208
Income	1.161.765.932	75.914.046	100.247.711	539.013.766

9. By analysing the data from Table 1 - estimated values and total income generated through "successfully" distributed narcotics on the black market in Croatia in the period 2000-2003, it is evident that there is significant difference between the narcotic distribution income in 2000 compared to the narcotic distribution income in 2001. Due to the lack of more realistic estimation method of narcotics present on the market the indicators are taken from the table in the Annex. The discrepancy is caused by the confiscated amount of cocaine, in 2000 confiscated amount of cocaine amounted to 913 kg, while in 2001 confiscated amount of cocaine amounted to 1,5 kg. The police action that resulted in the confiscation of a large amount of narcotics, often represents the stopping of the narcotics distribution channel towards the west European countries and not only the entry of the narcotics which is entirely destined for the Croatian market.

10. Probably the most realistic insight into the subject matter can be obtained by observing the average quantities and values of narcotics in the analysed period (2000 - 2003). Thus the average annual narcotic distribution income at annual level amounts to about 469.235.364 HRK, whereas the estimated narcotic distribution value amounts to 586.544.205 HRK.

11. It is obvious that the number of reported persons at the annual level amounts to from 5 to 6 thousand of persons, and possession of narcotics has the greatest share. Bearing in mind that there are fourfold more drug addicts, the total number of drug addicts amounts to around 25.000. Multiplying the number of drug addicts by 100 HRK (the amount of money necessary for daily dose), the calculation shows that yearly around 1 billion HRK was spent on narcotics. However, the total number of addicts comprises not only daily drug consumers but also drug consumers who take drugs only occasionally; previously presented total estimation value of less than 1 million HRK is considered to be realistic.

**Table 2. Criminality related to the abuse of narcotic drugs in the Republic of Croatia – criminal offences and perpetrators of criminal offence (2000 - 2003)**

	2000	2001	2002	2003
<b>NUMBER OF REPORTED CRIMINAL OFFENCES</b>	7.338	8.609	8.717	7.992
- possession of narcotics (Article 173 Item 1 of Criminal Code )	5.099	6.210	6.432	5.505
- manufacture, reselling, offer for sale substances or preparation which are by regulation proclaimed to be narcotic drugs (Article. 173 Item 2 - Item 6 of Criminal Code)	2.239	2.399	2.285	2.487
<b>NUMBER OF REPORTED PERSONS</b>	5.429	6.495	6.576	5.685
- possession of narcotics (Article 173 Item 1 of the Criminal Code)	4.794	5.704	5.929	5.078
- manufacture, reselling, offer for sale substances or preparation which are by regulation proclaimed to be narcotic drugs (Article. 173 Item 2 - Item 6 of e Criminal Code)	635	791	647	607

#### IV. PROSTITUTION

12. In the previous Phase of the project some estimation and conceptual problems existed on illegal activities, especially prostitution. The number of prostitutes seems to be underestimated. Hence, in Phase II, the CBS conducted additional research on prostitution. A city-by-city

approach has been used. An interview of taxi drivers has been made in four biggest Croatian cities (Zagreb, Split, Rijeka and Osijek – cities with more than 100.000 inhabitants). Interview has been aimed on questions about:

- (a) number of prostitutes in the city;
- (b) average price per service;
- (c) number of clients per prostitute (daily);
- (d) number of working days per week.

13. Telephone interviews on escort services and massage/sauna parlours have also been done.

14. The **prostitution income** is based on the estimate of total number of prostitutes, number of active days, number of clients per prostitute and average prices. According to the expert estimate, 70% of prostitutes are ‘professionals’ which means their profession is prostitution. The remaining 30% are ‘part-time prostitutes’, i.e. they have regular jobs and the prostitution is an additional source of income. It is estimated that the number of working days for the first group of prostitutes is 250 days annually and 100 days annually for the second group. Using the results of the additional research on prostitution, the number of prostitutes is estimated at around 3.000 for the whole Croatia. Number of daily services by prostitute is 4. According to the conducted research, the average prices throughout the analysed period are estimated at 515 HRK per service (the range spans from 200 HRK to above 1000 HRK per service). Furthermore, the estimated costs of this activity (clothes, accommodation expenses, other expenses) are estimated at 20% of total receipt, and the rest is net income.

15. Table 3 shows estimated annual income from the prostitution in the Republic of Croatia.

**Table 3. Estimated total annual income from the prostitution in the Republic of Croatia (2000 - 2004), in HRK**

	2000 - 2004
Estimated average number of active prostitutes	3.000
Estimated number of annual working days	205
Estimated number of clients daily	4
Estimated average price per one service	515
Estimated total annual revenue from the prostitution	1.266.900.000
Estimated annual net income from the prostitution	1.013.520.000

16. On the basis of stated parameters (Table 3) from research, it can be estimated that the total average annual income from the prostitution is estimated at 1.3 billion HRK. According to the estimate that 20% of the total revenues are costs (clothing purchase, expenses related to the

dwelling, other costs), average annual income generated from the prostitution is estimated at around 1 billion HRK in analysed period.

## V. TRAFFICKING

17. **The trafficking income** — illegal transfer of persons across the state border can be estimated on the base of the number of foreigners who were caught to be illegally crossing the state border during one year and the estimated average price paid to the smugglers. The approximate real number of illegal transfers across the state border assuming that police prevented 50% of this kind of activity is the double number of illegal emigrants in a specific year. The estimated income is the multiple of this number and the estimated average price of trafficking per person. The costs are estimated to be 20% of the income, and the remaining 80% are estimated profit.

18. Data on trafficking income by years are shown in table 4 below.

**Table 4. Estimation of total earnings of smugglers from people smuggling in Croatia in period 2000 -2003**

	2000	2001	2002	2003
Number of foreigners who were caught to be illegally crossing the state border	24.180	17.038	5.186	4.311
Estimated number of foreigners who illegally cross the state border without being caught	24.180	17.038	5.186	4.311
Estimated total number of foreigners who illegally cross the state border	48.360	34.076	10.372	8.622
Estimated average price paid by smuggled person to smugglers (around 475 €in HRK)	3.500	3.500	3.500	3.500
Estimated total gross earnings of smugglers from illegal transfer of people across state border (HRK)	169.260.000	119.266.000	36.302.000	30.177.000
Estimated total net earnings of smugglers from smuggled people for illegal transfer across the state border (HRK)	135.408.000	95.412.800	29.041.600	24.141.600

19. Total average annual estimated gross earnings of smugglers in the period 2000 -2003 amount to 88.8 million HRK. Assuming the organizer's costs of illegal transfer across the state

amount to about 20%, average annual net annual income is estimated at 71 million HRK in the analysed period.

## VI. ESTIMATES OF TOTAL ILLEGAL ACTIVITIES IN CROATIA

20. In Phase I of the project, CBS made a detailed assessment of illegal activities. Estimates included narcotics, prostitution, counterfeit goods, trafficking and corruption. During Phase II, CBS improved these estimates, removing 'corruption' and 'counterfeit goods' and conducted additional research on prostitution. While the estimates for narcotics and trafficking has been unchanged, the estimate on prostitution has been tripled to almost 0,6 per cent of GDP from following a new approach of data collection. In total, the share of GDP for these three illegal activities has decreased to 0,89 per cent from 1,02 per cent of GDP (for all five types of illegal activities estimated in Phase I).

21. Table 5 shows the estimates of the total average annual income generated by illegal activities in Croatia for the period 2000 - 2004.

**Table 5. Estimated total average annual income generated through illegal activities in Croatia in the period 2000-2004, in HRK million**

Type of illegal activities	Value of average annual illegal income	Proportion of GDP
Narcotics distribution	469.2	0.26
Prostitution	1 013.5	0.56
Trafficking	71.0	0.04
<b>Total net illegal income</b>	<b>1 553.7</b>	<b>0.85</b>

22. Total income from illegal activities in Croatia in period 2000-2004 is estimated at annual average of almost 1.6 billion HRK, i.e. 0.85% of the average annual GDP in the observed period. The most significant sources of illegal income are prostitution and narcotics distribution, while people smuggling is not significant.

## VII. CONCLUSION

23. All mentioned calculations, data and estimations are based on incomplete data sources. Additional research on narcotics will be very useful, especially from the demand side. Interpretations and conclusions of estimates from table 5 are subject to any additional expert's analysis as well to multidisciplinary consideration of the complex problem of illegal activities.

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