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ISSUES AND ACTIVITIES TO ENSURE THE COVERAGE OF THE
NON-OBSERVED ECONOMY IN NATIONAL ACCOUNTS: IMPLICATIONS
FOR NATIONAL STATISTICAL OFFICES

Invited Paper Submitted by Italy */

INTRODUCTION

1. Within the activities related to the implementation of the new version of SNA, prominence is given to the estimation of the activities that the SNA93 describes as illegal activities, underground and informal. The estimation of such activities is necessary to guarantee the exhaustiveness of the national accounts estimates according to the production boundaries defined by the new economic accounting system.

2. Until now, in working on this issue we have encountered various terms such as: underground, concealed, hidden, shadow, informal, illegal, criminal, etc. economy, the content of which was not clearly and unambiguously described.

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3. The SNA93, for the first time, has built a coherent framework for the identification of this area; therefore, it is possible to capitalise on this considerable work and to adopt at the international level a homogeneous language as a basis for describing and analysing the phenomenon. Even if the SNA93 definitions do not provide a conclusive solution, we believe that it is necessary to refer to it in order to consolidate a coherent and complete framework to measure the such activities in their entirety, that for reasons of clarity and ease we call Non Observed Economy.

I. THE CONCEPTUAL FRAMEWORK: SCOPE, DEFINITIONS AND MAIN STATISTICAL PROBLEMS FOR AN EXHAUSTIVE ESTIMATE OF PRODUCTION

Scope

4. If our objective is to analyse the exhaustiveness of GNP estimates, our first concern is the delimitation of what should/should not be included in national accounts. Therefore, the boundary between productive activities that should/should not be covered by the non-financial part of the system of national accounts must be defined.

5. As regards productive activities, the SNA93 introduces two different reference universes:

- (1) **the general production boundary**, which draws the line between non-economic and economic production, where the latter includes all activities "carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce outputs of goods or services" "of a kind that can be delivered or provided to other institutional units" (SNA93: 6.15 and 6.6). In short, any activity implying human involvement or direction resulting in outputs capable of being exchanged.
- (2) **the SNA production boundary**, i.e. the one that applies to our analysis of exhaustiveness, which is more restricted than the general one and delimitates the range of productive economic activities which should be accounted for by GNP estimates. Activities excluded from this boundary are all household activities that produce personal or domestic services for own final consumption within the same household, except for services produced by employing paid domestic staff and the imputed rent on owner-occupied dwellings.

6. However, at the time of own-account production of some goods it may not be known whether, or in what proportions, the goods produced are destined for the market or for own use. The SNA provides a list of types of production (e.g. agriculture and other primary products) that are included **irrespective**

of whether or not they are intended for own final consumption (see SNA93: 6.24).

7. The production boundary **within households** (SNA93: 6.23-6.33) has been the subject of considerable debate during the last revision process of the SNA. The System acknowledges that certain kinds of household activities may be particularly important in some developing countries and that this issue deserves careful consideration; however, the choice made against imputing values for unpaid domestic or personal services produced and consumed within households has been justified on grounds of the following three main arguments:

1. limited repercussions on the rest of the economy;
2. difficulty in the imputation of monetary values;
3. adverse effects on the usefulness of the accounts for macroeconomic analysis and policy purposes.

8. In connection with the third argument, one important point needs to be kept in mind if the practical importance of the theoretical discussion on production boundaries is to be fully grasped. The SNA production boundary is also relevant for labour force and employment statistics: according to ILO guidelines, it applies to the definition of the category of the 'economically active population', which should comprise all persons of either sex who furnish the supply of labour for the production of economic goods and services as defined by the United Nations System of National Accounts. It is clear therefore how shifting the profile of the boundary may have an important influence on key socio-economic variables.

9. On balance, the foregoing delimitation of productive activities within households has been drawn more on practical rather than conceptual grounds. However, dealing in more detail with this matter is beyond the scope of this work. Undoubtedly, whether we agree or not and even if our aim is to challenge it, it is useful to have a clear understanding of the current international standard in order to allow meaningful comparisons and discussion.

10. Finally, it is worth mentioning that the informal-formal distinction remains one of the most important items on the agenda of future research in national accounting for the Statistical Commission of the United Nations, which intends to continue work in collaboration with the lead agency in this field, the International Labour Organisation (see SNA93: xliii).

Definitions

11. Within the production boundary, national accounts provide an exhaustive measure of production when they cover production, primary income and expenditures that are directly and **non** directly **observed** in statistical surveys or administrative files (see European Commission Decision 94/168/EC, Euratom of 22 February 1994, Article Type 2, Title II, *Definition of Terms*).

According to the internationally accepted definition described in the SNA 1993, the **Non directly Observed Economy** (hereinafter **NOE**, drawing this term, as a convenient summary, from the Decision), includes the following "areas":

(1) illegal, (2) underground, (3) informal sector.

12. The SNA93 contains the definitions of the illegal and underground economy (SNA93: 6.30-6.36), and the instruments to identify the informal sector.

13. **Illegal activities** are those forbidden by law (i.e. production and distribution of illegal drugs) or those that may be legal activities in themselves, but not when they are carried out by unauthorised actors (i.e. unlicensed practising of a profession). **Illegal production** is thus classified by the SNA in two categories:

- (a) the production of goods and services whose sale, distribution or mere possession is forbidden by law;
- (b) production activities which are usually legal but which become illegal when carried out by unauthorised producers.

14. Both kinds of production are included within the production boundary of the System, provided that they are genuine processes whose outputs consist of goods and services for which there is an effective market demand.

15. When recommending the inclusion of illegal activities within the production boundary, the SNA makes a clear distinction between transactions mutually agreed upon by the purchaser and the seller (i.e. drug, stolen goods trafficking, prostitution), which are included; and other activities where such mutual agreement is missing (i.e. extortion, theft), which are excluded.

16. Attention also needs to be paid to the fact that illegal activities can be either productive or redistributive and that only the former have an impact on GNP estimates, whereas the latter only imply a redistribution among the various institutional sectors.

17. **Underground economy** stands for all legal production unknown to public authorities due to various reasons:

- (a) to avoid the payment of income, value added or other taxes;
- (b) to avoid the payment of social security contributions;
- (c) to avoid having to meet certain legal standards such as: minimum wages, maximum hours, safety or health standards, etc.
- (d) to avoid complying with certain administrative procedures, such as completing statistical questionnaires or other administrative forms.

18. Therefore, underground activities can be defined either as "**economic underground**", indicating those activities characterised by the deliberate will not to respect administrative standards, with the purpose of cutting production costs (items (2a) (2b), (2c), or as "**statistical underground**" indicating those activities that are not surveyed because of inefficiencies in the statistical information system or the lack of statistical sensitivity on the part of the institutional units (private bodies, corporations, etc.) that are requested to compile statistical questionnaires (item 2d).

19. Sometimes the borderline between underground and illegal production may be blurred. Although both of them should be accounted for by GNP estimates ("provided that they are genuine production processes whose outputs consist of goods and services for which there is an effective market demand", SNA93: 6.31), it is however useful for operational purposes to make a distinction between them. Two further observations are needed to clarify this concept. First of all, the lack of administrative "authorisation" alone is not sufficient to define an activity as "illegal". Secondly, a distinction must be made among various kinds or "levels" of activities that break the law. On the one hand, illegality in the strict sense refers to acts violating the penal code. This is the kind of illegality that is typical of illegal activities as defined by the SNA93. On the other hand, illegality in the broad sense refers to all other activities that break the law, in particular the rules about taxes, social security/pension contributions, some legal standards such as minimum wages, maximum hours, safety or health standards, etc. As mentioned before, productive activities that do not comply with these or other administrative rules are regarded by the SNA as "underground economy". These examples clearly show the importance to describe what is defined as illegal production in each single country, so as to guarantee comparability of GNP estimates at the territorial level (among different countries) and over time (for the same country over different years).

20. To define the Informal sector, the SNA93 refers to institutional production units characterised by:

- (a) a low level of organisation;
- (b) little or no division between labour and capital;
- (c) labour relations based mainly on occasional employment, kinship or personal and social relations, as opposed to formal contracts.

21. These units belong to the household sector and cannot be associated to other production units. In such units the owner is fully responsible for all financial and non-financial obligations undertaken for the productive activity. There is no need to underline that informal activities are not necessarily carried out in order to evade taxes or other controls related to social security contributions (as mentioned before, these are rather the motivations for underground economic activities).

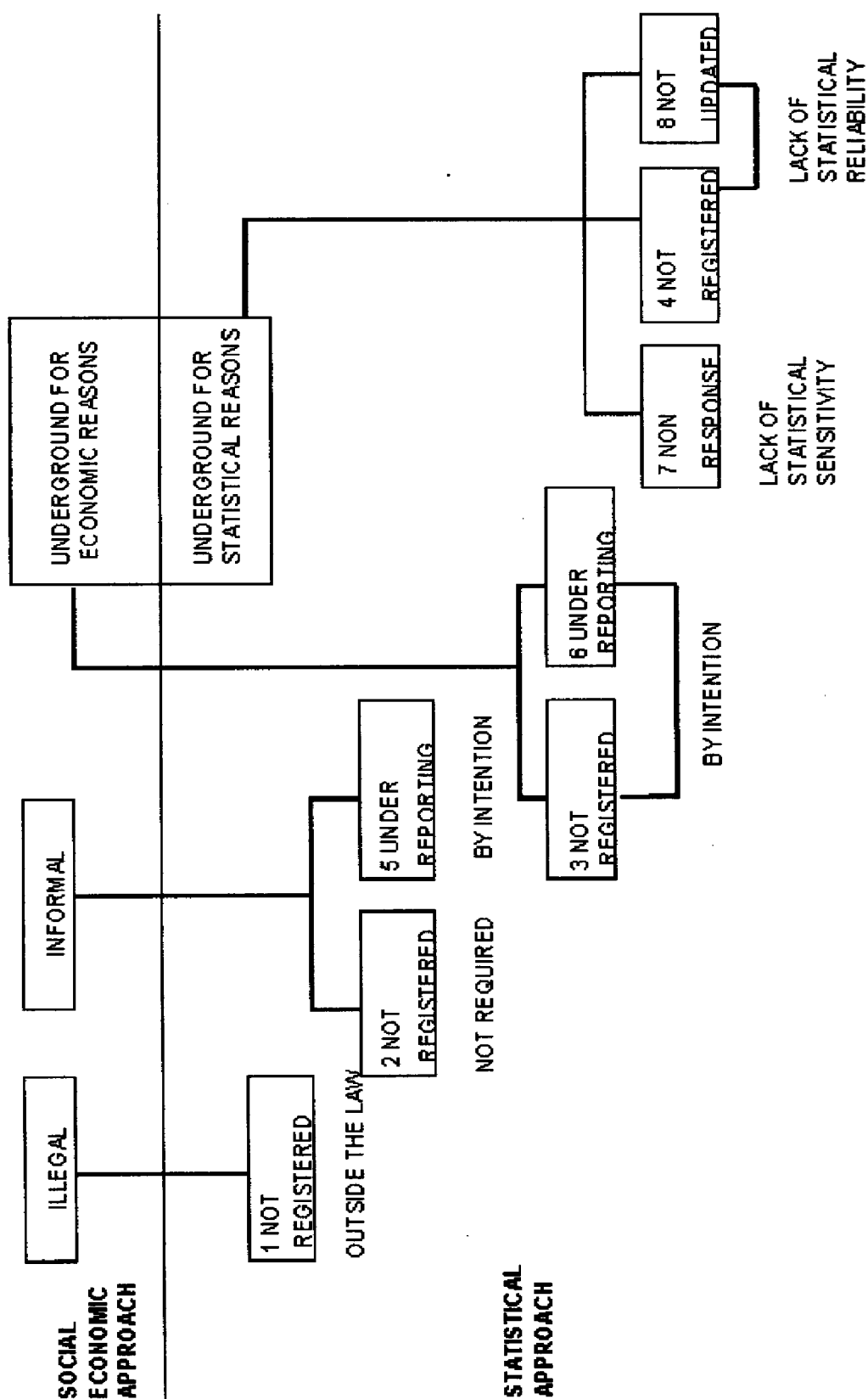
22. On the basis of the laws in force in each country, for example, this sector may be identified by referring to the "size" of the production unit and/or to the characteristics of the legislation (no obligation whatsoever to register with public authorities).

23. Within the household sector the informal sector includes "informal" own-account enterprises and enterprises of "informal" entrepreneurs. Owing to operational reasons, these two categories may be further reduced to production units that do not need to register with the fiscal authorities or social security institutions in order to carry out their activity, as long as they are institutional production units as defined by the SNA93.

Main problems affecting the exhaustiveness of National Accounts: the statistical point of view

24. From the statistical point of view, measuring NOE is obviously a very difficult endeavour because of the elusive nature of what is being measured and, consequently, the approximations made in the measurement process. Figure 1 shows how the aforementioned phenomena relate to the statistical problems to be addressed by national accountants, to the origins of such problems, and to their impact on the statistical system and the different NOE typologies that can be identified accordingly. These issues are then briefly illustrated to highlight the statistical aspects involved in the measurement of the single NOE components.

Figure 1 - NON OBSERVED ECONOMY



Non-Registered Activities

25. The existence of non-registered production activities implies that there are missing institutional units in our data sources (statistical or administrative sources). The most important consequence is the lack of reliable business registers. Let us analyse how this situation arises.

26. The first and simplest reason for non-registered activities is the illegal activity. There is no need to go into the details of the reasons why such activities cannot be surveyed **directly** and why they are missing from our data sources (in fig. 1 this corresponds to **NOE type 1 - illegal sector, non registered**).

27. Production units in the "informal" sector may be missing simply because they are not requested to register at all by any kind of legislation, although sometimes they must account for their activity to the fiscal authorities, a situation existing in some transition countries (in our typology this corresponds to **NOE type 2 - informal sector, non registered**).

28. Among the enterprises belonging to the "formal" sector, some units are missing due to the deliberate intention to avoid the existing obligations to register. The main reason for such behaviour is to avoid additional costs of various kinds: value added taxes, social security contributions, costs related to the compliance with health and safety standards, etc. (**NOE type 3 - underground economy, non registered**).

29. Within the "formal" sector, enterprises may also be missing in our sources due to statistical reasons (independent from their will). This can happen, for example, because of: (1) the great turbulence in the enterprise universe, such as the high rate of turnover of enterprises (considerable in economic systems where the share of small-sized production units is particularly high); (2) the lack of adequate laws and rules about statistics; (3) the lack of efficiency in the statistical system. The main consequence of that is the difficulty to maintain reliable business "registers" and, therefore, the impossibility to guarantee the exhaustiveness of the information derived from business surveys (**NOE type 4 - statistical underground, non registered**).

Underreporting

30. This occurs when data provided by a production unit are not consistent or have abnormal characteristic values (i.e. cost/production ratio). In general, this happens because one or more components contributing to make up the production value are underreported or, vice versa, because cost components are over-reported. In all cases, the final result is an underreporting of the enterprise's profits, highlighted by an underestimate of the value added. Such underreporting can be identified both within the informal sector (should tax returns about such production units be available)

and within the underground economy (in the first case it is **NOE type 5 - underreporting, informal sector**; in the second case, it is **NOE type 6 - underreporting, underground economy**).

Non response

31. This is a problem related to the "statistical sensitivity" of single enterprises, a problem well known to statisticians and dealt with by a vast literature on the methodologies used to eliminate its consequences in order to estimate data for such production units. Therefore, we will not discuss this issue here (**NOE type 7 - non response, statistical underground**).

Lack of updated information

32. Usually this is due to the fact that the registers constructed and /or used by National Statistical Institutes are not reliable. In general, we refer to problems related to out-of-date information on production units inside statistical and/or administrative "registers". The lack of updating can be due to various kinds of changes in the production structure of enterprises, such as:

- enterprises that do not exist any longer, but are still considered as "active" ones;
- changes in the structure (mergers, etc.);
- changes in size/dimension (in terms of subordinate employees or of turnover, etc.);
- changes in economic activity;
- changes in the geographical distribution of production units.

33. Obviously, all of the above mentioned items affect the exhaustiveness and the quality of national accounts, as they affects both the level of estimates (causing overestimation errors) and their analysis by geographical area and by economic activity (**NOE Type 8 - statistical underground, non updated**).

II. ACTIVITIES FOR CONTRIBUTING TO ACHIEVE EXHAUSTIVENESS OF GNP ESTIMATES BY INTERNATIONAL ORGANISATIONS

34. Ensuring the exhaustiveness of GNP estimates including the NOE is important for at least two reasons:

- (1) To avoid distortions in the system of national accounts, so to guarantee an adequate organisational scheme of economic aggregates;
- (2) To provide a correct picture of the economy so that an adequate basis for economic analysis and policy-making can be realised.

35. In the following paragraphs we will present four examples of how the problem of ensuring the exhaustive coverage of productive activities has been tackled in four different groups of countries within the ECE region with the assistance of international organisations.

European Union (EU Commission, Eurostat)**EU Member countries**

36. At European level, the quality of national accounts (NA) estimates has, in recent years, increasingly become an issue of critical importance. This issue has also been gaining autonomy from the theoretical point of view in the field of data quality, typical of statistical surveys. To obtain a "measure of the total quality of NA estimates", the definition and quantification of the "exhaustiveness" of the results, i.e. the element resulting from the non observed economy, has, together with other statistical elements a fundamental importance.^{1/}

37. Indeed, improving the exhaustiveness, reliability, comparability and representativity of the Member States' GNP estimates is a high priority for the EU Commission, in particular because a part of the Member States' contributions to the EU budget is calculated by applying a formula to GNP. The quality of GNP figures is of course also important for a series of other reasons, namely the increasing need to compare NA data as the completion of the internal market progresses; and, the need to rely on sound macro-economic indicators as analytical tools for the co-ordination of economic policies as well as for framing and implementing Community policies (e.g. distributing structural fund resources).

38. Specifically, as regards exhaustiveness, Member States have undertaken work under legally binding obligations. Two important pieces of legislation need to be pointed out here. First, Council Directive 89/130/EEC, Euratom of 13 February 1989 on the harmonisation of the compilation of GNP at market prices, where the problem of exhaustiveness is explicitly mentioned ^{2/} among the issues to be considered by a specific Committee (the "GNP Committee") set up by Member States and the Commission. With the objective to lay the foundations for future work, this directive has required Member States to provide the Commission with an inventory of the procedures and basic statistics used to calculate GNP and its components. Second, Commission Decision 94/168/EC, Euratom of 22 February 1994 on measures to be taken for the implementation of the Directive of 1989. According to this Decision, Member States ^{3/} are required to follow a single uniform work programme to verify/improve the exhaustiveness of GNP. It should be noted, however, that even though illegal activities are inside the SNA93/ESA95 production boundary, they have been excluded for the time being from the scope of this programme on grounds of practicality and because their importance relative to GNP is considered very low.

39. From the technical point of view, the work programme can be briefly illustrated as follows:

- (a) **Description of calculations and adjustments already in use.** Member States would provide detailed information on all of the existing

adjustments, both implicit and explicit, made to ensure the exhaustiveness of their GNP estimates. Examples of implicit adjustments are quantity-price calculations and estimates derived from the demand side using expenditure surveys.

- (b) **Verification of exhaustiveness using employment data.** Member States would verify the exhaustiveness of GNP using estimates of the labour factor underlying production. The reasoning behind this approach, which has been inspired by the example of Italy 4/, is as follows. If the same sources which are needed to estimate production and/or value added in the national accounts (enterprises' side) can also be used to yield an estimate of employment, then that employment estimate can also be assessed for completeness against the estimates of employment available from demographic data sources (households' side). This exercise has been clearly summarised by Hayes and Lozano (1998) 5/.
- (c) **Description of regulations and adjustments for income in kind and tips or gratuities.** Member States would provide documentation on the tax rules concerning income in kind and the procedures used to ensure that these incomes are correctly recorded in the national accounts. They would also describe the calculations applied in respect of tips or gratuities.
- (d) **Verification of exhaustiveness using fiscal audit data.** Member States would investigate the possibility of using fiscal audit information to increase exhaustiveness (this approach has been inspired by the example of France 6/).

40. In parallel, since exhaustiveness also depends on the quality of the statistics being adjusted, special task forces due to report to the GNP Committee were also set up in order to identify best practices for achieving exhaustiveness in four different fields: construction; distribution (i.e. retailing, wholesaling, hotels and catering, etc.); the use of household budget surveys; the problems for NA due to the introduction of Intrastat (i.e. the EU system for collecting statistics of international trade between the Member States).

41. Among the conclusions drawn from the work on exhaustiveness, we would like to stress the following:

- there is no single method to verify and ensure exhaustiveness that can be considered best for all countries and thus be recommended to all EU Members (the choice depends on a series of factors: sources of available information, characteristics of the phenomenon in the specific country, etc.);

- exhaustiveness cannot be looked at in isolation from the main sources and methods used to compile the national accounts; developing the infrastructure of the statistical system is, in fact, a pre-requisite for exhaustive national accounts;
- after completing the work programme, one cannot expect GNP estimates of Member States to be exhaustive in a final and absolute sense; rather, they will be improved (weaknesses existed in most Member States), becoming much more systematic and verifiable in their approaches to the issue.

42. After completing the programme and after the final assessment by Eurostat in 1999, the agenda considered for future work is likely to include the following:

- (a) the separation of the main components of the NOE (the underground and informal economy and the economic and statistical underground), which can be useful for policy-making;
- (b) the possible inclusion of illegal activities;
- (c) the extension of the geographical scope of the work as the ties between the EU and third countries develop.

EU co-operation activities with Phare, Tacis and MED countries

43. Among the various multi-country co-operation activities undertaken by the EU to assist third countries to evaluate and improve the exhaustiveness of their national accounts estimates, we will distinguish for our purposes between the work undertaken by Eurostat with the pre-access countries under the Phare Programme, with the Newly Independent States (NIS) under the Tacis Programme and with the MED countries under the Medstat Programme.

44. It is useful here to make a few general remarks about NOE statistics in relation to the different situation in different countries. First, it is important to point out that during the transition period the measurement problems for both the economic underground and the statistical underground have become significant. It is clear that the practically unregulated boom of economic activities in the private sector makes the infrastructure of the national statistical institutes no longer adequate. Such infrastructure had been tailored, in fact, to the need of measuring the economic activity of a centralised system, which requires for its investigation completely different statistical tools. It is important to keep this in mind since, when the NOE is analysed in these countries, it must be clear that the statistical component is quite significant. It is also clear that socio-economic and policy-oriented analyses are bound to be totally different when focussing on the economic or statistical underground. Some of these concerns, with due allowance for the different contexts, are also common to Mediterranean countries. Namely, the obsolescence of the economic and legal infrastructure, the problem to keep track of the demography of small-medium enterprises and

of the increasing number of entities involved in foreign trade. Finally, the difficulty of analysing even existing data should also be mentioned, which is often linked to the lack of a systematic approach and to the production of data on an irregular basis.

45. Another important point needs to be made. The presence of the two components (economic and statistical) of the underground economy must not be considered as a temporary phenomenon that is only due to the peculiar characteristics of the transition period and therefore bound to disappear as soon as this difficult phase comes to an end. Rather, also in view of the experience of Western countries, we know that the phenomenon is there to stay. As such, our objective should be the development of a statistical system and infrastructure capable of detecting and make adjustments for the presence of this phenomenon, so as to minimise its impact, while realising that it is unrealistic to think of its complete elimination.

Phare Programme, Candidate Countries (CCs)

46. In the pre-accession period, the objective for statistics is twofold:

- to support EU policies and enlargement negotiations with statistical information;
- to comply with the **acquis communautaire** in statistics in all statistical areas.

47. Within the Pre-Accession Framework, Eurostat has the task to provide the Commission with adequate macro-economic statistics from the CCs, together with an assessment of the quality of the data provided and of the underlying compilation methods. In the area of the non-financial national accounts, several activities have been undertaken by Eurostat through the Phare Multi-Country Statistical Co-operation Programme, which includes the improvement of the exhaustiveness of GNP estimates among its priorities. In this area, two of the major and most recent multi-country projects need to be mentioned here.

48. The preliminary work was started in 1997 by means of the "Analysis project on exhaustiveness of non-financial national accounts estimates". The main objective of this project was the assessment of the state of the art in CCs with regard to the measurement and inclusion of the NOE in their national accounts. The relevant information was collected by means of a questionnaire jointly elaborated by Istat and Eurostat and in line with the SNA93 concepts, definitions and classifications. The main sections of the questionnaire focussed on:

- the approach, sources and methods used for making NOE adjustments by branch/sector for the output and expenditure measures of GNP;
- checks of different NOE estimates (in particular, it sought to find out if validation of GNP through employment data is or can be carried out);

- reconciliation methods of the different measures of GNP and other issues associated with exhaustiveness (e.g. whether and which types of production for own final use are included, etc.);
- prospective changes in data sources and methods and how they affect the estimation of NOE;
- classification and relevance of illegal activities, quantification of their share in GNP if included in NA (only one specific section dealt with this part of the NOE; all the others concerned underground and informal activities).

49. It is important to stress that, in order to establish from the very beginning a common framework of analysis, a note on the conceptual framework (similar to the one described in the first part of this paper) was provided to the CCs together with the questionnaire.

50. Through the analysis of the replies to the questionnaire, it has been possible to identify different situations in CCs in relation to different aspects of the problem; for each country the main issues requiring clarifications and a list of common gaps and shortcomings emerged. One common indication for future work, for instance, concerns the measurement of GNP on the expenditure side. Generally speaking, the output measure of GNP has been considered more reliable, and information on methods and sources used is more detailed than on the expenditure approach. This may suggest that during the transition period a special effort should be devoted to improve the way the data obtained from the new information system on households are analysed and used, so that the quality of the GNP estimates on the expenditure side can be improved.

51. On balance, the project emphasised a number of general requirements that should be taken into consideration if improvements are to be made:

- To concentrate on the methodological problems of measuring the total and the different components of NOE and to describe in detail the estimation methods applied;
- To define a general model for estimating the NOE, so that the consistency of time series relying on regularly available data sources can be ensured;
- to exploit all available data sources (statistical as well as administrative) and to reconcile them;
- To reconcile different estimates made for individual branches.

52. Moving on from the results obtained from the first multi-country project, and on the basis of an initial proposal by INE Portugal, Eurostat developed and started a new multi-country activity with the pilot project on the Exhaustiveness of the National Accounts including the NOE. This project, supervised by Eurostat and supported by EU experts, started in September 1998 and will have a duration of three years. The project, aiming to improve the exhaustiveness of non-financial national accounts in Phare countries,

includes among its activities a pilot study by each partner country. Its main expected output is a more exhaustive and comparable set of non-financial national accounts figures that is in line with the concepts, definitions and accounting rules of SNA93.

53. The framework is the same as that for the Decision on exhaustiveness and the Analysis Project mentioned above.

Tacis Programme, Newly Independent States (NIS)

54. A different approach has been defined in the context of the Tacis programme, the main aim of the EU assistance to the Newly Independent States (NIS) in the field of statistics being to offer guidance and support in introducing statistical systems compatible with the information requirements in market economies. As regards economic statistics, one of the main objectives of co-operation is to assist these countries to be part of the global economic structure, through access to the World Trade Organisation and integration into a larger European economic space. This is even more relevant since, with the enlargement of the EU to Central and Eastern European countries, the common borders with the Union will become more important.

55. Apart from the bilateral co-operation, it is important here to stress the technical assistance on NOE statistics in a multi-country framework that Eurostat has undertaken as a result of the Tacis High Level Seminar for Heads of Statistical Offices of the CIS countries, held in Saint Petersburg in September 1996. During this seminar, a number of common problems faced by the statistical systems of Tacis countries due to phenomena typical of the transition to a market economy were identified. As a consequence, six task forces in priority areas were created and, among these, the Tacis Task Force on the Measurement of the Non Observed Economy. Even though the estimates are not accurate and exhaustive, it is generally acknowledged that the share of NOE is important, that it has been growing and that it distorts in a significant manner the structure of GNP in terms of output in branches and sectors of the economy. The task force was designed to take stock of current achievements as regards NOE statistics, describe the methodologies adopted and make recommendations for the future. It has been led by Italy, the Netherlands and the OECD and had among its members a group of Tacis countries (Armenia, Georgia, Ukraine, Uzbekistan, Tajikistan) and a Phare country (Romania).

56. The work focussed on the analysis of the papers provided by Tacis participants on different specific issues and of the additional information provided on the basis of guidelines agreed upon during one of the meetings. For each specific issue the link had to be made with one of the 'items' described in paragraph 1.3 thereby representing the main problems to be taken into account by statisticians to ensure exhaustiveness; the guidelines asked for a description of the characteristics of the economic system in relation to NOE, excluding illegal activities. In particular, an effort was required to identify the importance of NOE by branch of economic activity and

according to the form of ownership of the productive units. The information obtained represents one important output, because, together with the indication of the importance of the branches, it allows a rapid preliminary evaluation concerning the case for allocating - or not - and in what amounts resources for measuring NOE and making the adequate adjustments.

57. The experiences analysed by the Task Force have been useful as a testing ground for evaluating the coherence of the methodologies within the conceptual framework of reference drawn by the SNA93, and have made it possible to implement the proposed approaches within the socio-economic reality of the transition countries. Despite the deficiencies of the statistical infrastructure and the differences found in the statistical information available in the different countries, it has been stressed that the experiences gained can represent a valid reference for all the Tacis countries. However, there was common agreement on the need to carry out a more in-depth analysis in order to make the experiences useful not only as tests but also as sources of reliable data on the economy analysed.

58. In the Final Report of the Task Force, presented in October 1998 at the Tacis High Level Seminar in Almaty, some key points emerged:

- the importance of reliable registers and the integration of archives and other sources;
- the importance of adopting a systematic approach (some countries have carried out useful specialised surveys of good quality, but still lack an overall approach);
- the importance of using more proficiently administrative data sources (work is in progress, though difficulties range from the lack of co-ordination between institutions within countries to the lack of appropriate technical equipment).

59. In spite of the difficulties, the needs for information are widely recognised, as NOE is seen to have an important economic, social and political impact. As a follow-up to the work of the Task Force, and following discussion during the last High Level Seminar in Almaty, Eurostat has launched a new initiative to organise a workshop on NOE addressed to all Tacis countries, to be held in Moldova in July 1999. The intended results of this workshop are the following:

- To stimulate and strengthen the dialogue and exchange of information between Tacis participants and the invited EU, FAO, and OECD experts as well as among the Tacis countries' participants themselves on theoretical and practical issues and their experiences regarding the measurement of the NOE;
- To contribute to analysing the strengths/weaknesses in the present statistical information systems of transition countries with regard to the coverage of NOE as required by international standards;

- To provide participants with an overview of all relevant tools and information about alternative methods for measuring NOE and ensuring the exhaustiveness of national accounts estimates, with special attention to issues related to agriculture;
- To analyse and discuss approaches implemented by Tacis countries aimed at improving the coverage of NOE and particularly aspects related to the labour market;
- To generalise recommendations pertaining to best practices.

60. According to the suggestions of the Scientific Committee (Eurostat, Italy, Netherlands, OECD) in charge of drafting the proposed agenda and following approval by the Tacis partners, the workshop is aimed at national accountants and branch statisticians, and will deal with measurement issues in relation to the Non Observed Economy on two levels: the improvement of basic data and the inclusion of NOE into national accounts estimates. This is to stress that the quality of GNP estimates also relies on the quality of the whole statistical infrastructure and that, therefore, exhaustiveness is not to be looked at in isolation from the main sources and methods used to compile the national accounts.

MEDSTAT Programme, MED countries

61. Another approach to deal with the issue of NOE is the experience just started with a group of Mediterranean countries. The background to this initiative is the Euro-Mediterranean partnership, established with the Barcelona Declaration of 1995, whereby the EU and 12 Mediterranean countries (three of which are candidate for EU membership) have agreed to develop economic and financial co-operation for the purpose of creating an area of shared prosperity. This objective will be pursued by means of the progressive establishment of a free trade area by 2010, the development of economic co-operation and an increase in EU financial assistance to its partners. In this framework, as explicitly mentioned by the Declaration, statistical co-operation is given particular attention in view of the need to promote the production and exchange of reliable, updated and harmonised statistics between the EU and MED countries. To this end, a regional programme of statistical co-operation, MEDSTAT, was launched in 1996 to reinforce the capability of national statistical systems to monitor the progress of the objectives set out by the Barcelona Declaration as well as to respond to the needs of international and national users including market operators.

62. One of the priority areas targeted by MEDSTAT is statistics of the NOE. The measurement of this phenomenon is a field where MED countries are having difficulties in providing adequate statistical information on a regular basis, starting from the adoption of a comprehensive and common methodological framework. The need to address this problem is widely acknowledged, also in view of the likely increase of the share of non observed activities due to the gradual opening-up of the MED countries' economies as a result of globalisation and the development of the partnership with the EU.

63. Collaboration under MEDSTAT on NOE started with the organisation of the Workshop on the Underground Economy and the Informal Sector held in Rome in May 1998. In short, the objective of the workshop was threefold: establish a common framework of analysis, review existing methodologies and practical experiences, draw a work plan for future action to be adopted under MEDSTAT. The Scientific Committee (CESD-Roma, DIAL, Eurostat, Italy, Morocco, Netherlands, Palestine) invited each MED participant to write a Background Paper following a series of common guidelines. These guidelines, similar to those elaborated for Tacis assistance, laid out a common conceptual framework in accordance with the current international standard references and adapted them to the context of the MED countries.

64. To provide participants with a critical overview of theory and practice, and present ideas for replicating successful experiences outside the original context, the Scientific Committee also included the presentation of experiences from "non MED" countries, namely: the EU (Italy and the Netherlands), transition countries (Poland) and developing countries (the experiences of DIAL in Africa and of the NSI of Mexico). With a view to the importance of the informal (household) sector for the MED Region, the ILO, as lead agency in this field, was also invited to take an active part in the Workshop and contribute to the discussion on operational definitions and survey methods.

65. The general recommendations elaborated by the workshop are similar to those drafted for Tacis countries. For some MED countries, moreover, one important output similar to the results obtained by the Tacis Task Force is the possibility, on the basis of the data collected, to carry out a rapid evaluation concerning the case for allocating - or not - resources (and in what amounts) for measuring NOE and making adequate adjustments to the underlying methodology.

66. In addition, some problems specific to the MED Region were highlighted. First of all, the very heterogeneous situation of national statistical systems in the area. As regards the implementation of international standards, for instance, the points of departure differ considerably: some countries have already made important steps towards the adoption of the SNA93, whereas others still base their national accounts on the SNA68, often adapted and integrated with a different system specific to the country. Such diversity clearly affects the problems of comparability not only between countries but also over time within the same country. Second, the specific socio-economic context of developing countries, which needs to be taken into proper account especially as it pertains to the informal sector activities. Due to the key role of this sector in these economies and its peculiar characteristics, special attention may be required for its analysis: for instance, to avoid a gender bias against the usually high contribution of the female labour force, the application of international standards and the survey design may need to be "gender aware".

67. The conclusions of the workshop and the results of the preliminary analysis were the basis for drafting the terms of reference of the MED-NOE sub-programme of MEDSTAT, which should be implemented during a three-year period from 1999 onwards. The main purpose of MED-NOE is to improve the exhaustiveness and regional/international comparability of GNP of the MED countries by assisting the National Statistical Institutes to develop and implement appropriate methodologies to measure the NOE, including conducting pilot surveys where required. With a view to contribute to the analysis of the job creation potential of the informal sector, special consideration will be given to the aspects involving all the components of the labour market (first of all informal).

Other international organisations

Organisation for Economic Co-operation and Development (OECD)

68. In the area of the Non Observed Economy, OECD provides technical assistance in the framework of multi-country as well as bilateral programmes involving transition and emerging economies. Two major examples of the former kind of activities are the collaborations with Eurostat within the Phare and Tacis programmes, mentioned in Section 2.1. An important example of the latter is the co-operation with the Ukraine State Statistical Committee, which has also focussed on business registers, this being one of the experiences discussed within the Tacis Task Force on NOE. On a general level, OECD is committed to develop and promote best practices in this area; this has been done for instance by means of preparing a handbook-like publication on the measurement of NOE in transition countries and by organising a specifically focussed session on the topic at the next International Conference on Establishment Surveys.

International Labour Organisation (ILO)

69. The ILO has played a key role in developing the informal sector concept since the early 1970s. In recent years, an important recognition of its leading role has been made by the United Nations Statistical Commission, which endorsed, in early 1993, the 15th International Conference of Labour Statisticians (ICLS) resolution concerning statistics of employment in the informal sector and decided to include the 15thth ICLS definition of the informal sector in the Revised System of National Accounts (SNA93). Since 1993, the ILO Bureau of Statistics 7/ has continued its work on the development and promotion of informal sector statistics by means of a series of technical and financial contributions to activities at the international and regional level, which has included support to seminars and workshops on informal sector statistics for African and Asian and Pacific countries. It has also played an active role in the meetings of the United Nations Delhi Group on Informal Sector Statistics 8/, constituted in 1997, and in the organisation of an ad hoc meeting during the 52nd Session of the International Statistical Institute (Helsinki, 1999). A module on informal sector statistics was developed as part of the Bureau's training programme.

Through technical advisory missions and Cupertino projects, the Bureau has provided assistance in the development of informal sector statistics to some transition as well as to some developing countries. Another major activity was the Bureau's participation in the Interdepartmental Project on the Urban Informal Sector, which the ILO launched in 1994; as part of the project, the Bureau conducted, in Cupertino with the national statistical agencies, large-scale statistical surveys of the informal sector in three capital cities in developing countries. The surveys were conducted in two phases as mixed household and enterprise surveys, and were undertaken either as a first part of a national informal sector survey or as a pilot for a nation-wide survey to be completed by the national statistical agencies. On the whole, about 40 countries have already started to collect and publish data on employment and other characteristics of the informal sector, and some of them do so regularly. With the assistance of the national statistical offices, the Bureau has started to collect data from existing informal sector surveys and related methodological information, which are stored in a special database. It should be noted in this connection that employment in the informal sector has been chosen as one of the ILO Key Indicators of the Labour Market (KILM) and included among the United Nations Minimum National Social Data Set (MNSDS). Finally, the Bureau is preparing a manual on informal sector surveys; based on available experience, the manual aims at providing technical guidelines on the contents of the 15th ICLS resolution.

III. ESTIMATE OF NOE AND DEVELOPMENT OF THE NSIS INFORMATION SYSTEM

70. The experiences described confirm that NOE measurement should be carried out taking into consideration the economic and social reality of a country, for two reasons:

- (a) the peculiarities it shows, making it necessary to define appropriate measurement methodologies, that would not be easily usable in different socio-economic situations;
- (b) the need to describe the phenomenon with the categories that are typical to it, so as to permit those utilising such information to have as far as possible an analytical description of the context it belongs to.

71. From this it stems that in defining the estimate methodologies of NOE, the NSIs should take into consideration the experiences developed by sector experts (both for the economic and social aspects), with the purpose of developing measurement and screening models of the NOE which comply with the modalities within which it develops. The utilisation of case studies, from which we may begin to think about defining of the estimate methodology, is only an example of the connection that has to be established between the NSIs, which are obliged to apply a systemic type of approach that takes into consideration the definitions and the concepts defined at the international

level, and the sector's "analysts/experts", who in their the maximum freedom of action are able to ascertain more directly both the NOE characteristics, in specific areas and/or economic sectors, and its development over time.

72. Starting from the experiences described under part 2, and also on the basis of what we have learned from them, we review the issues that the NSIs will have to face in the near future (and how these will affect the structure of the information system designed by them), in order to attain an exhaustive estimate of GNP in relation to all components of NOE: illegal activities; economic underground (for statistical and economic reasons); and informal sector.

Estimate of the illegal production activities

73. Until now, no particular attention was paid to this component, aside from a theoretical point of view, having as its main objective analysing how such production activities intersect with legal activities and become included in the frameworks of National Accounting. Eurostat has decided, in the near future, to begin a discussion intended to verify the possibility to estimate such activity and the consequences that its inclusion might have on the current NA estimates.

74. Since we have to start thinking about the problems involved with the estimation and the inclusion of these estimates in the NA data, it is necessary to emphasise two items:

- the obvious issues connected with measuring such phenomenon. To this end, we can only restate the need to utilise administrative sources that, in this case, are different in nature compared to those normally utilised by NSIs. A few examples: information coming from police administrations; from the insurance sector (for the evaluation of stolen goods), from administrations belonging to the health system (for measuring the number of drug addicted persons and thereby the quantity commercialised); etc.;
- the difficulties to be overcome to guarantee the comparability of the estimates. Since the laws are different in each State, the definition of illegal activity should be specified with regard to the legislation in force in a specific State and in a specific time period. The case of abortion, from the Italian experience, is significant in this regard. Before 1978, abortion in Italy was illegal and the relevant activities were not registered in the national accounts. After that year, its legalisation brought about the inclusion in the NA estimates of the health industry and of families' expenditures for legal abortion; it resulted an increase (even if a small one) of the health sector both in production and in expenditure. Another explanatory case is the legalisation (today

under discussion in some countries) of the production and the utilisation of light drugs (the derivatives of cannabis).

75. Some exercises have been realised within EU to verify the difficulties and the possible solutions in measuring such activities. 9/

Estimate of the Economic and Statistical Underground

76. It is to be said that the two problems (statistical underground and economic underground) are separate in origin and give rise to completely different issues (even if sometimes it is difficult to separate their effects on the estimates produced). To point out such differences it is useful to divide the analysis between **countries with evolved statistical systems and countries that are in the process of (re)building their statistical systems**. In the former the Underground is mainly of Economic in nature and is due to the desire to limit production costs by avoiding, totally or in part, fiscal obligations and/or contributions; while the Statistical Underground is not relevant, given the presence of information systems (based generally on the integration of statistical and administrative sources) that guarantee an effective coverage of the production activities. The activity of building enterprise registers allowing a complete coverage of all the production activities is a practice that has, at this point in time, a consolidated literature and also significant practical experience, attributes that the extra EU countries can utilise.

77. In the countries not yet equipped with such instruments there is the obvious, but not always clear, superimposition of problems relating to both the statistical underground and economic underground. Utilising the example of the countries in transition, it must be pointed out that the high percentages attributed to what is in general defined as the underground economy are, in fact, the sum of the economic underground and the statistical underground, caused by the inadequacy of the available information systems.

78. The consequence is that the necessary activities to guarantee the exhaustiveness of the NA estimates have to be pursued taking into consideration both the statistical and the economic issues. Only in this way we can expect to find solutions that effectively allow us to improve the NSIs' analytical capabilities, moving toward the minimisation of the statistical underground component and the individualisation, in an appropriate manner, of the economic underground component.

79. If it is true that great experience has been accumulated for the EU countries on this subject, it is nonetheless necessary to point out that harmonisation and comparability initiatives should also be brought to the attention of the extra- EU countries.

80. As for the developing countries and the transition countries, the types of initiatives carried out, and still ongoing, have been already described,

illustrating the engagement that the international agencies have on these subjects (utilised, also, for a general improvement of quality of the statistical information system).

81. On the other hand, less attention seems to be paid to verifying the harmonisation and comparability between the estimates of the countries with developed statistical systems. If the implementation of the new SNA is the opportunity to make significant progresses on these issues, and bearing in mind that for the EU countries, North America and OECD countries the subject of statistical underground is not too relevant, comparability among these countries has to be guaranteed for the economic underground component.

82. An operational proposal to address this issue could be to utilise the experience of the EU countries that, through their work on ensuring the exhaustiveness of the GNP estimates, have now defined the effective instruments to verify the homogeneity of the estimates produced; analysed the methodologies and sources utilised to build the estimates; and, taken into consideration the complete autonomy that the individual countries have in the definition of their estimation methodologies.

Estimate of the activities of the informal sector

83. Actually, we have to add to the mixture of statistical and economic underground the mixture of NOE due to the informal sector.

84. Due to the difficult economic situation first of all in the developing and transition countries, but also in the Western countries (crisis of the welfare state, increasing competition linked to the globalisation of markets, unemployment), the phenomenon of the Informal sector has been growing in the last years. Its weight is important not only from the National Accounts estimates point of view, but also from the social point of view.

85. The ILO, as described, is involved in many projects to analyse this sector in its potential capacity for job creation and income generation. For this reason, we think that it is useful to delve further into the issues and problems connected with the measurement of this sector.

86. The structure and the extension of the informal sector vary from country to country and in relation to different areas and branches of economic activity within the same country. The activity is undertaken with the primary objective of job and income creation, rather than for accumulating and reinvesting capital. The motives for undertaking an informal activity may be diverse: to carry on with a tradition of craftsmanship, to ensure survival, to obtain independence or even to undertake a more profitable activity.

87. It is reasonable to foresee that the informal sector, in the developing countries, will continue to absorb a significant share of the growing labour force, thus remaining an important and expanding phenomenon. A phenomenon

that must be integrated and institutionalised within the national economies, by promoting its organisation and the legal basis for the defence and the development of the productive forces of the sector.

88. For the economically developed countries, we also have to take into consideration a new phenomenon. During these last few years a new aspect of the informal sector is emerging, it is associated with forms of production activities whose development is only partially connected to and/or determined by an insufficient level of economic development. As example we recall the phenomenon of the "Time Banks" (**Banche del Tempo**, in Italy, non-profit interest free systems serving the local community). Through this "institution" work is exchanged among different individuals and in different economic branches. Retribution occurs as a kind of barter where the unit of measure is the amount of time of the work furnished. This system is akin to 'LETS' (Local Exchange Trading Systems) spread first in Anglo-Saxon countries, even though with some differences: "local" currencies are created by LETS and the exchange does not always occur on the basis of 1 to 1 (hours of work). This type of production (not to be confused with the activities classified by SNA as "do it yourself") is growing in economically developed countries and constitutes a form of production that really belongs to the definition of production of NA described under part 1.

89. Without going to deeply into a social and economic analysis of the motivations at the basis of the development of such production activities (from an economic understanding, seeing this as the answer to an economic crisis that limits the capacity of families as consumers, to a sociological understanding, seeing this as the development of new forms of social solidarity), we underline here only the effects that the need to measure such activities have on the work of NSIs.

90. The need to prepare a new statistical apparatus that is adequate for the description of such activities, through aggregates specific to a production unit as defined by the SNA93 (production, value added, input of work, working hours, remuneration, etc.) is a subject that has to be put on the agenda of NSIs starting today, so as to avoid our having to catch up with the phenomenon when it has an economic relevance, paying the same price in terms of the credibility of NA estimates that had to be paid for the underground economy.

91. On balance, the relevance of statistical information on the informal sector is therefore apparent for at least the following reasons:

- developing statistics on employment and contributing to improve the elaboration of National Accounts;
- establishing an adequate information basis for macroeconomic analysis and policy-making for economic and social development (notably, for income generation and job creation policies).

92. The collection of statistical data on the basis of the foregoing definitions is particularly difficult in comparison with the usual statistical surveys in both the economic and social fields. In this case in fact the units may be mobile on the territory, they are often not recorded in registers or in official documents, they are sometimes on the margins of administrative and fiscal regulations.

93. In general, the possibility to analyse employment, both in the formal and informal sectors, in a framework linked to the NA schemes, allows further analysis; for example the analysis of the production factors according to a Social Accounting Matrix (SAM) approach and the shift from the analysis of income from employment based on the characteristics of the worker to the one based on the characteristics of the family. This can represent the first step toward an approach that integrates the monetary variables of the NA schemes with the non monetary variables underlining to them, one of the most important innovations proposed by the accounting system described in the new version of SNA.

CONCLUSION

94. To sum up, the experience accumulated showed the importance of the following points for investigating NOE:

- to have a general model for estimating the non-observed economy, otherwise it is difficult to produce comparable figures for subsequent periods (consistency of time series) relying on regularly available data sources;
- to integrate all available data sources and to reconcile them;
- to reconcile different estimates made for individual branches;
- to prepare detailed documentation of estimation methods applied;
- to involve from the beginning of the definition of country-specific approaches experts from the socio-economic reality where the approaches will be implemented;
- to keep in mind that the NOE is not a temporary phenomenon due to transition period or to the specific characteristics of developing countries and that the approach to measure it needs to be elaborated accordingly.

95. These requirements should be given full consideration while developing new methodologies and modernising the statistical system. In other words, the issues of exhaustiveness and quality should be carefully considered at every stage of preparing estimates, starting from the design of the questionnaires, the definition of the target population of new data sources through the preparation of a detailed description of the methods used to estimate national accounts aggregates. Therefore this work should involve not only the National Accounts Department but the statistical data production process as a whole; statistical offices should aim at "total quality" of their estimates.

End Notes

- 1/ For a thorough analysis of the issue of quality of NA, see ISTAT, 'Evaluation and analysis of the quality of the national accounts aggregates', Report for the Eurostat SUPCOM Project (1998) and ONS, 'Reliability and quality indicators for NA aggregates', Report of the Eurostat SUPCOM Project (1999).
- 2/ Art.7.
- 3/ The application of the Decision, except minor details, involves the 15 current EU Members and also Norway and Iceland as part of the European Economic Area (EEA).
- 4/ ISTAT, 'The Underground Economy in Italian Economic Accounts', in Annali di Statistica, 122 X, vol.2, Rome 1993.
- 5/ Hayes, K. and E. Lozano, (1998) 'Validating the Exhaustiveness of the GNP Estimates of the European Union Member States', in Proceedings of the Joint IASS/IAOS Conference, Statistics for Economic and Social Development, September 1998.
- 6/ INSEE (1995) 'The French Gross National product. Statistical bases and valuation procedures', INSEE Méthodes No.34-35-36, Paris.
- 7/ The information on the activities of the Bureau has been drawn from Report IV of the 16th International Conference of Labour Statisticians and from the ILO Bureau of Statistics Newsletter no.8, December 1996.
- 8/ The objective of the Delhi Group is to document the data collection practices in the informal sector and to develop suitable methodologies for survey design and data collection in that sector, taking into account the System of National Accounts 1993 and the resolutions of the International Conference of Labour Statisticians.
- 9/ These exercises have been carried out by the following countries: Italy, the Netherlands, the United Kingdom.