Distr.
GENERAL

CES/AC.68/2001/5
2 March 2001

ORIGINAL : ENGLISH

STATISTICAL COMMISSION and ECONOMIC COMMISSION FOR EUROPE

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)

CONFERENCE OF EUROPEAN STATISTICIANS

CIS STATISTICAL COMMITTEE

<u>Joint ECE-OECD-CIS Meeting on National Accounts for CIS countries</u>
(St. Petersburg, 28-30 May 2001)

EXHAUSTIVENESS OF GROSS NATIONAL PRODUCT IN EU MEMBER STATES

Note by Statistics Denmark*

INTRODUCTION

1. The paper gives a brief overview of the work done since the adoption of the GNP Directive in 1989 in order to ensure that the GNP used as a basis for the EU's fourth own resource is exhaustive. Starting from a discussion of the various approaches to exhaustiveness in the economic literature, the paper goes on to focus on the four approaches or themes that were chosen by EU Member States and the Commission as being the most operational as well as being the ones most likely to lead to the most reliable and comparable results. These four themes are, firstly, a listing of all explicit and implicit coverage adjustments in the national accounts, secondly an employment check by which supply and demand for labour are confronted, thirdly a comprehensive coverage of income in kind, and fourthly the potential use of results from tax audits to adjust for misreporting and concealment of income. For the majority of Member States the work in order to ensure and document complete coverage in the accounts of all productive activity was terminated in 1998. The paper provides a few of the results of the exercise which are in the public domain.

* Prepared by Mr. Esben Dalgaard, Chief Economist.

DEFINITION OF EXHAUSTIVENESS

2. In order for Member States' GNP to provide a basis for an equitable distribution of contributions to the EU budget they obviously have to be exhaustive i.e. cover all the primary income in the economy. Otherwise, the real burden of contribution to the EU budget borne by the various Member States would differ, merely because the national accounts of some Member States were more developed and exhaustive than those of others. Such a situation would clearly not be tenable.

3. Realising this, the Council and the Commission entered a declaration in the Council minutes on the adoption of the GNP directive urging the Commission and the GNP Committee to intensify their work on ensuring the exhaustiveness of GNP in general, and notably to ensure that the hidden economy was included in the GNP of all the Member States.

4. In 1992 the Commission placed a reservation on the GNP of all the Member States in regard to its exhaustiveness. The aim was to make it possible to correct Member States' budget contributions retroactively in the light of the outcome of the exhaustiveness exercise.

5. For the purposes of applying the GNP directive the EU member states agreed in 1994 that GNP should cover all transactions within the *production boundary* defined by ESA 79 that are legal in themselves. The GNP which is to be used for calculating Member States' contributions to the EU's GNP-based own resource thus comprises the regular economy that complies with the tax and social security legislation in force, plus hidden economy in the form of productive transactions that would have been perfectly legal, if the tax liabilities they give rise to had been met.

6. This operational definition implies that the bulk of the hidden economy, i.e. the part consisting of hidden labour and underreporting of sales and profits, should be included in GNP. By contrast, productive transactions that are per se illegal like drug trafficking should be excluded. The problem with the operational definition chosen by the EU Member States is of course that activities that are illegal in one country may be legal in another. However, it was thought at the time that the first big step should be to include whatever legal activities were missing in the national accounts. This task was considered big enough for it to be unwise to attack the problem of illegal productive transactions simultaneously.

7. While noting the importance of capturing the *hidden* economy, the Commission and the GNP Committee have repeatedly stressed that it is no less important to be able to ensure that all *regular* economic activity is adequately covered in the national accounts. It is not enough to develop an elaborate statistical system for including the hidden economy, if big slices of the regular economy escape statistical coverage due e.g. to registers which are not kept up-to-date. For the coverage of all *regular* economic activity, which normally accounts for the overwhelming part of GNP, it is essential to have an exhaustive and permanently updated business register. In this respect the EU regulation on business registers, which obliges the Member States to keep a comprehensive and updated business register, is therefore in practice a very important step in the direction of giving all the Member States the necessary statistical tools to ensure both exhaustiveness and accuracy of the national accounts.

STATISTICAL APPROACHES TO EXHAUSTIVENESS

8. The Commission and the GNP Committee started examining the issue in depth in 1990. They started by reviewing the different approaches to capturing the hidden economy in the economic and

statistical literature. Broadly speaking, the following methods have been used either by statistical offices or by independent academic researchers:

1) Confrontation of two or three approaches to GDP for instance GDP (income) with GDP (expenditures)
2) Financial accounts (net lending in the capital account against net lending in the financial account
3) Balance sheets
4) Commodity-flows and input-output tables
5) Checks using VAT data
6) Random compliance studies (use of fiscal audits)
7) Sensitivity analysis based on the size and other characteristics of producers
8) Employment based methods – confrontation of supply of and demand for labour
9) Use of household expenditure surveys to capture black economy goods and services
10) Listing and comparison of all explicit and implicit coverage adjustments
11) Monetary methods based on the velocity of notes and coins.

9. The GNP Committee quickly dismissed the monetary methods which have been used in a number of academic studies – some of which very lightweight – that have attracted a lot of publicity. Using sensitivity analysis along the lines of method 7) above it was clear to all the national accountants involved that the results of monetary methods are totally unreliable. They imply a very big hidden economy in most countries. In market services, they imply an extent of hidden economy which is extremely high and contradicted by all other evidence, including employment data. Nevertheless, monetary methods are sometimes used even in studies commissioned by other Commission DGs than Eurostat, and national accountants unfortunately have to use time and effort fending off amateurish estimates of the hidden economy.

10. Apart from the monetary methods, the Committee found that all the methods proposed had some merit but that some of them were limited in scope or could not in the short run be applied in all the Member States. The discussion led the Committee to focus on three of the above approaches, namely 6), 8) and 10) plus a fourth one dealing solely with the coverage of income-in-kind (fringe benefits). It should be mentioned, though, that while the VAT comparison in 5) was not thought to be a way of ensuring exhaustiveness, it is recognised by everyone that it is a very powerful tool for demonstrating lack of exhaustiveness. After lengthy discussions about the appropriate legal framework, the Committee finally decided in 1993 to endorse a legal act obliging the Member states to carry out and document four exercises aimed at testing, and if necessary improving, the exhaustiveness of their national accounts. The legal act took the form of a Commission decision adopted in 1994. This Commission decision is still the centrepiece for the work on exhaustive national accounts in the EU.

THE COMMISSION DECISION FROM 1994

11. The decision obliges Member States to:

(a) draw up a list of all explicit and implicit coverage adjustments to basic statistics
(b) to make a systematic comparison of the employment underlying GDP (demand side) with labour observed in demographic sources (supply side)

(c) list all items of income-in-kind included in the national accounts and describe how they are valued in their national accounts
(d) investigate the possibilities of using the results from fiscal audits to make adjustments for misreporting

Note that while a) – c) contain an obligation to draw up lists and present calculations, d) only obliges countries to investigate the statistical possibilities.

12. Why is a) a good idea? Because it makes countries face up to all the potential weak spots in their accounts. This becomes especially clear when these lists are compared between countries. If country A has an adjustment for a common phenomenon like own-account capital formation in most industries and country B does not, chances are that there has been an omission in country B's national accounts which only becomes apparent in the light of other countries' experience.

13. Why is b) a good idea? Because it has proved to be a very efficient check of major lacunas in the statistical coverage of production. Such a comparison was at the origin of the revision of the Italian national accounts in the 1980s which led to a sizeable upward adjustment of GNP. That is why it is sometimes dubbed the Italian method.

14. Why is c) a good idea? Because like a) it reveals omissions, and by comparing the results from different countries it is possible to make a plausibility check of the value of fringe benefits included in the national accounts?

15. Why may d) sometimes be a good idea? Because if random, or almost random, fiscal audits are available, they represent the most objective way of making adjustments for misreporting. Unlike the employment methods, they do not require a productivity assumption (value added per full-time equivalent of concealed employment). Yet a serious drawback is that random audits are rarely if ever available. Instead, most audits are targeted on enterprises presumed to be seriously underreporting and so are not representative of the population of units.

STATE OF PLAY

16. All of the Member States have carried out the checks and supplied the documentation required by the exhaustiveness decision. The results were closely examined by the Commission and the GNP Committee during the years 1995-1998. Member States (EU12) were obliged to include the data in their GNP questionnaire for September 1998. The three countries that became members in 1995 were given one more year. After having verified the results, by October 2000 the Commission has lifted the exhaustiveness reservation on the large majority of Member States.

17. The exercises a), b) and c) of the exhaustiveness decision have proved fruitful in all the Member States in that they have either confirmed in a rather convincing manner that the existing accounts were already exhaustive in a particular field, or led countries to make adjustments for items which had been omitted.

18. By contrast, all in all the results of the efforts to use results from fiscal audits have been disappointing. With the exception of one Member State, this method has not been found to be generally

applicable in the EU Member States. It should be noted that a variant of this method is applied in the United States, albeit with sizeable modifications to the results originally obtained from fiscal audits.

RESULTS

19. The results of the exhaustiveness decision are confidential and can only be made public after clearing by each individual Member State. Therefore, it is not possible in the present paper to quantify the impact of this initiative separately from all other changes.

20. However, one may get an idea of the impact by looking at the cumulative revisions to the GNP of the 12 countries that were EU members in 1988 (EU12) from their first reporting of data under the GNP directive in 1989 till the end of the work programme on exhaustiveness in 1999. It is clear that the cumulative change is also the result of other improvements prompted by other initiatives of the GNP Committee. Some of these have improved the accuracy of estimates that were already included in the accounts, i.e. increased reliability rather than exhaustiveness. For two of the biggest Member states the overall result of all the revisions since 1989 taken together has actually been negative, leading to a reduction in GNP between 0.5 and 1.7 per cent. Nevertheless, where big upward revisions have occurred there is hardly any doubt that these revisions are mainly the result of the work on exhaustiveness.

21. For the 12 countries that were members in 1989, the total change in GNP for the year 1988 from the first reporting in 1989 until the end of the exhaustiveness exercise in 1999 has been less than one per cent. The conclusion must be that the national accounts covering the bulk of European GNP were already more or less exhaustive 10 years ago. Nevertheless, it should be noted that the GNP for 1988 of four of the smaller Member States have been revised upwards by between 10 and 24 per cent. One Member State has revised its GNP for 1988 upwards by slightly over 4 per cent. The overall conclusion must be that the work programme on exhaustiveness has had a sizeable impact in five countries but only a minor impact for the Union as a whole.

22. An indication that the national accounts of the EU countries do in fact include a lot of hidden economic activity may be found in the discrepancy between theoretical VAT receipts as calculated in the national accounts and the VAT revenue actually collected by the tax authorities. The European Court of Auditors in its special report no. 6 from 1998 on the VAT-based and GNP-based own resources found that this discrepancy amounted to no less than 21 per cent of the VAT revenue actually collected during the period 1991-93 for a group of nine EU countries. While the Court is naturally concerned about the extent of VAT fraud and other tax evasion that these figures imply, national accountants may perhaps take comfort in them as a rather convincing indication that they have not been too bad at their job of ensuring exhaustive coverage of production and income.

*****