Session Number: 2C
Session Title: New developments in the Compilation of Supply and use Tables and Input-Output Tables
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Papers prepared for the 29th General Conference of the International Association for Research in Income and Wealth

Joensuu, Finland, August 20-26, 2006

Compilation of Supply and Use Tables and Input-Output Tables in Bulgaria

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and

Experience from Africa, developing Supply and Use Tables integrated with the Annual National Accounts

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The next two papers, *Compilation of Supply and Use Tables and Input-Output Tables in Bulgaria* by Todor Todorov and Julia Kirilova of the National Statistical Institute of Bulgaria and *Experience from Africa, developing Supply and Use Tables integrated with the Annual National Accounts* by Liv Hobbelstad-Simpson and Haavard Sjoeli of Statistics Norway and Lizzie Chikoti of the National Statistical Office of Malawi, clearly and deliberately take the point of view of the compiler, rather than the user of national accounts and supply and use tables. The two papers complement each other and, as a set, should be of interest not only to potential compilers of supply and use tables in the context of improving national accounts estimates based on the SNA'93, but also to policy analysts and planners as well as to other users, as they illuminate the process and the preconditions necessary for producing sound estimates.

Both papers are largely descriptive. The common element in both is the advocacy of the SUT framework and methodology and of its specific expression in the new tool for its implementation developed by Statistics Norway. The latter is the new development in the compilation of Supply and Use Tables which is the topic of this session. The two papers very helpfully present the application of the Norwegian methodology and software 'System of National Accounts – New Technology (SNA-NT) in two fundamentally different situations. In Bulgaria there is a wealth of detailed statistical data and a long tradition of input-output table compilation; in the case of the African applications, there is an extreme dearth of statistics for the compilation of national accounts and supply and use tables and relatively little experience to build on. The two papers can be viewed as case studies illustrating situations at opposite ends of the spectrum. The fact that the SNA-NT application, according to the authors, is being successfully implemented in such different contexts, testifies to the flexibility of the methodology and the robustness of the system.

Development of a reliable statistical system is a slow and very costly process, which, unfortunately, is something that users frequently tend to overlook. It is fortunate that, as the authors indicate, the authorities in Bulgaria had the foresight not to discard entirely the wealth of detailed data available under the MPS system, but rather to modify the approach and build on it.

In Africa, where resources are so scarce, and priorities recently have rightly focused on poverty and health issues, some reasonably functioning systems of economic statistics collapsed from sheer inability to maintain the survey base. Prolonged discontinuities in data collection have an effect on economic statistics similar to severe floods – it is necessary to start practically from scratch to rebuild. Worse, the expertise to do so is often also lost along with the data and the problems can be compounded by the remnants of the old system. The Malawi case study serves to illustrate this problem.

I believe it would serve no useful purpose to discuss in detail the presentations of the data requirements for constructing the Norwegian SUT-NT in its various applications. Those aspects are well covered in the papers for those who are interested and I would urge you to review them. The Bulgarian paper (page 3) puts it as follows: "The SNA-NT application software is a precisely defined, documented and efficient set-up with respect to routines for compiling SUT at current and constant prices on the

international guidelines of the ESA 95, which helps to improve the organization of data flows in the frame of SUT as an integrated part of the system of non-financial national accounts."

Moreover, as stated in the Norwegian-Malawi paper on the Experience in Africa, the SUT-NT was specifically designed to assist countries without a well established computer-based system to develop supply and use tables while ensuring that the concepts and definitions of the SNA'93/ESA'95 are implemented, using the Norwegian methodology as a model.

I will now briefly comment on each of the papers. First, the paper from the National Statistical Institute of Bulgaria by Julia Kirilova and Todor Todorov – *Compilation of Supply and Use Tables and Input-Output Tables in Bulgaria.* The authors start by very helpfully providing a very short overview of the history of Input-Output Table development in Bulgaria - extending back to 1960 within the framework of the MPS system – sketching in the initial transition period during which "the transformation to the SNA methodology was established on the basis of the I-O framework." The first Supply and Use Tables for Bulgaria (for 1991, 1992, 1993) were published in 1996, in cooperation with EU. The authors state that this process of close cooperation and gradual alignment with the SNA'93/ESA95 resulted not only in the methodology being adopted but also in improvements in basic statistics through new surveys and methodologies.

It was after this lengthy transition period, when the ESA95 system was already fairly well established, that Bulgaria embarked on the cooperative effort with Statistics Norway to adopt the Norwegian SUT-NT. Thus, Bulgaria came to this project with long experience, a good data base and an enthusiasm for building ever better Supply and Use Tables. Nevertheless, it took two years of work between the two agencies to implement the system in 2004. The degree and length of involvement of the Statistics Norway members of the team is not indicated. However, it is noteworthy that a significant amount of time was devoted to assisting with the implementation of the application. It would be interesting if the authors would offer their view of the amount of direct involvement in application training that might be required a) for the installation of the computer application and b) for putting in place the Norwegian methodology, as, surely, the general SUT methodology would by that time have been quite familiar to the National Statistical Institute. The answer might be valuable background information for potential users of the SUT-NT.

The authors then go on to describe the main features of the SUT system, the basic framework, the classification standards used, and the detailed product catalogue that was developed, highlighting particular aspects of the work, such as issues in distinguishing the types of producers as well the demand categories. There is a useful section on valuation of transactions, calculation of trade and other margins and the compilation of the VAT matrix. A more detailed description of the issues associated with the compilation of SUT at constant prices is provided, which describes the various price indices available, with specific attention to trade and transport margins at constant prices The authors stress the need to ensure that there is sufficient product/commodity detail in the system to allow for differentiation between types of transactions (different origins, different uses, different tax rates, etc.) What is impressive is the amount of detail that has been developed and is maintained on an

ongoing basis. The paper concludes with a section on further developments and special issues that have been identified through the application of the SUT-NT framework. Perhaps the authors could comment on what they see as potential limitations of the system, if any, and where they see future extensions and refinements.

The second paper presents a synopsis of the Norwegian SUT methodology and then proceeds to briefly describe the experiences of the Norwegian project in applying the model and the SUT-NT in various countries. The introductory part outlines the advantages of the use of SUTs and the design and use of the Tables. The second part presents the Norwegian experience and the data requirements. The paper has extensive Appendices on constant price work, and on the equations for current price tables. Finally, there is a brief note on SUT-NT. The paper concludes with a list of useful references.

Parts three and four form key parts of the paper and discuss Norway's cooperative projects in Africa, focusing mainly on the African experience in Malawi and Eritrea. Although in both countries the SUT-NT team was faced with a paucity of basic data, the authors point to key differences. In Eritrea the data base is being developed as part of the SUT-NT project, with support from the authorities and the authors are optimistic that good progress will be made. In Malawi there had been a fairly good system of economic statistics in place which had collapsed for lack of adequate resources and a shift to other statistical priorities. This now has to be rebuilt piecemeal with considerable donor assistance. In some ways this appears to be the more difficult task. Because of this, I would like to ask the authors to address the issue of progress in data development, as the success of the project so crucially depends on the availability of sufficient statistical data – for example, the authors mention that it is necessary to implement an adequate annual economic survey of the large and medium establishments and, crucially, to carry out a census of agriculture. What is the situation and what are the prospects?

I would like to raise what I consider to be a fundamental issue in this work which has not been dealt with to any extent in the paper, that is, the issue of sustainability - not only in Malawi but also in other countries where the system has been implemented for one year as a benchmark. Without the ability of the authorities in each country to support the system financially and with appropriate staff and other resources, the benefits will be short-lived. The Norwegian authors could usefully address the issue of their experience in the range of countries where the project has been or is being implemented. For example, could they comment on the amount of training and other technical support required to install the system and the conditions for its success.. This is such an integral part of the process that it becomes a very important consideration for the successful extension of the SUT-NT system into countries that are planning to develop a SUT. Norway by now has had a fair amount of experience and comments on this issue would be helpful.

In conclusion, I would like to congratulate the authors of both papers for providing very helpful insights into the process of SUT development under different conditions. But especially for highlighting the preconditions, such as a receptive institutional framework, some institutional memory and experience, a reasonable statistical

infrastructure in terms of data and funding for support and some guarantee of sustainability.

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