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ISSUES AND CHALLENGES IN ECONOMIC STATISTICS IN ESTERN EUROPE, CAUCASUS AND CENTRAL ASIA

Paper by the UNECE Secretariat

I. INTRODUCTION

1. The purpose of this paper is to provide a brief overview of current issues and challenges in national accounts, price statistics and business statistics in Eastern Europe, Caucasus and Central Asian (EECCA) countries.
2. Over the last decade the national statistical offices of the EECCA countries have made significant progress and today more economic statistics are being compiled and published according to international standards and recommendations. However, there are still areas where improvements are called for in order to further increase the international comparability of the statistics.
3. The paper is based on the work of the UNECE Statistical Division in national accounts, price statistics and business statistics, including also specific surveys conducted by the Statistical Division from 2007 to 2009 in the EECCA on their practices in economic statistics, which in our view should be part of the assessment of economic statistics. The paper only lists in brief the main issues and challenges and does not claim to be exhaustive. More details can be found in the reports of the surveys, listed in ANNEX 1 to this paper.

II. NATIONAL ACCOUNTS¹

4. Improvements in the national accounts statistics is based on 1) the quality and availability of basic, or primary, statistics, the statistical infrastructure and existing standards; and on 2) the specific methods and measures implemented for the production of the national accounts. Concerning the first mentioned set of statistical prerequisites the following challenges for developing national accounts coherent with the international standards – the System of National Accounts (SNA) and the System of European Accounts (ESA) – may be listed:
 - **Coverage of the economic activities.** Improvements need to be made with regard to the coverage of the economic activities. There are still outstanding issues in the production of statistics on services related both to the current price estimates of output/ value added and to the availability of suitable price deflators
 - **Bookkeeping standards.** Bookkeeping standards are still not fully harmonised with international accounting standards. In some countries different standards are in use

¹ The CIS Statistical Committee has provided valuable contribution to the preparation of the material on national accounts.

which creates significant difficulties to collect the requested information (e.g. data on accrual basis). While revision of the accounting standards is not the responsibility of national statistical offices they should try to influence the process by active cooperation with the respective authorities.

- **Use of cumulative data.** Most EECCA countries have developed quarterly national accounts based on discrete monthly or quarterly data sources. However, in some countries the production of quarterly accounts is still mainly based on so-called cumulative data sources. Since deriving e.g. quarterly national accounts from cumulative data results in lack of temporal and international comparisons, the move from cumulative to discrete time series remain a challenge in some of the countries.²
- **Administrative data sources.** In order to improve the coverage and quality of source data for national accounts, further use should be made of administrative data sources. A large amount of administrative data is available in many countries, but often not in a format that can be immediately used for national accounts needs. Hence, cooperation between national statistical offices and providers of administrative data should be encouraged to improve the statistical usability of the administrative sources.
- **Internationally comparable classifications.** Most of the countries have introduced ISIC/NACE recently. Some still use the OKONH³. The switch to the ISIC rev. 4/NACE Rev. 2 will be a major challenge, and further work will need to be undertaken in order to introduce completely the institutional sectors classification.

5. Concerning the specific national accounts issues the implementation of the recommendations of the 2008 SNA will be a major challenge:

- **Implementation of the 2008 SNA.** The CISSTAT meeting on National Accounts, held in Moscow on 3-5 December 2008, recommended that first priority be given to the implementation of changes affecting GDP estimates, such as changes in the treatment of research and development and military expenditures. Other important changes relate to the treatment of services of financial corporations, the public sector and transactions with the rest of the world. CISSTAT is developing a document on the treatment of research and development in accordance with 2008 SNA.
- **Availability of the 2008 SNA in Russian.** The 2008 SNA was finalised in the beginning of September this year in English. The production of a Russian version of the 2008 SNA will be a major prerequisite for the implementation process.

6. For the majority of the EECCA countries the 2008 SNA will have to be implemented while the statistical offices are still developing the full system of accounts. Thus, in addition to the implementation of the 2008 SNA the following challenges may be listed:

- **Non-observed economic activities.** One of the most significant problem areas for the EECCA countries is the existence of a large informal sector. According to the UNECE survey of country practices, in 2005 the share of non-observed economic activities in GDP ranges from 11 to 32 per cent. All countries in the region have introduced estimates for the non-observed economy in their national accounts figures, but further actions are needed to achieve exhaustiveness of the accounts.

² More information on the difficulties associated with the use of cumulative data are provided in the UNECE report *Rapid estimates of GDP in CIS and Western Balkan countries*, se ANNEX 1.

³ The CISSTAT classification of industries.

- **Independency of different approaches.** Most countries compile production, final use and income aggregates, but the three GDP estimates are not completely independent and the difference is often attributed to the least reliable component, e.g. change in inventories. Efforts to produce independent measures by the three approaches and to balance the differences may help improving the overall quality of the data.
- **Allocation of FISIM.** Currently none of the countries is allocating FISIM to user sectors. While it is not expected to affect greatly GDP growth rates, allocation of FISIM will have an impact on the nominal values of GDP and household consumption. The development of the estimates should be done in close cooperation with the central banks.
- **Constant price estimates.** Due to the lack of appropriate price indices double deflation is still not fully implemented. CISSTAT is currently working on recommendations on consumer price indices to obtain more reliable deflators for valuation of GDP in constant prices.
- **Quarterly accounts.** Further improvements are needed to quarterly accounts; some countries have not yet introduced quarterly estimates, others are producing only a limited number of aggregates, and seasonally adjusted series are generally missing. Other problems are linked to the use of cumulative data and lack of proper deflators.
- **Financial accounts.** Currently only Ukraine provides financial accounts data to the UNSD National Accounts Questionnaire. However, several countries consider developing financial accounts to be of high priority. Cooperation between national statistical offices, central banks and ministries of finance is important.
- **Compilation of balance sheets and estimates of consumption of fixed capital.** Balance sheets are not compiled in most countries. Lack of suitable capital stock data and the high inflation experienced some years ago creates difficulties for the calculation of related aggregates, e.g the perpetual inventory method (PIM) is still not implemented for calculation of consumption of fixed capital.
- **Holding gains adjustments.** Estimates of holding gains are important not only for the capital and financial accounts, but also to ensure the quality of GDP components, e.g. output, value added and changes in inventories.

III. CONSUMER AND PRODUCER PRICE INDICES

7. The main issues and challenges for the consumer price index (CPI) and the producer price index (PPI) in EECCA countries may be summarized in the following points:

Consumer price indices

- **Population and geographical coverage.** In the definition of population and geographical coverage, some countries follow the *national concept* while others follow the *domestic concept*. Irrespective of what concept is targeted, the delineation is, however, not always clear or documented, and data sources in some cases are insufficient in order to obtain adequate expenditure weights.
- **Coverage of goods and services.** The main problems occur with 1) *Rented dwellings*, mainly due to problems with data sources, inability to disentangle the total payment into its various parts (actual rent, water, gas electricity) and associated social benefits, subsidies or reimbursements. 2) *Owner-occupied housing*, which is most often not

covered by the CPI. 3) *Health*. 4) Consumption from *own-account production*. 5) *Services and IT products* such as telecommunication, mobile phones, and computers.

- **Taxes and subsidies.** Taxes and subsidies in e.g. housing, health, transport and education often make it difficult to identify the correct purchaser price to be included in the CPI, and incorrect treatment is likely to lead to adverse effects when taxes or subsidies are changed.
- **Sampling.** The monthly sampling of prices is resource demanding. The sample size in many EECCA countries could be reduced by applying better sampling techniques (e.g. stratification, use of cut-off sampling). This would also help reducing response burden.
- **Methodological issues.** Concerning *index calculation methods*, the treatment of *missing prices* and *seasonal products* and the adjustment for *quality changes* a number of countries are using methods that may lead to bias in the overall CPI. Hence, there is a need in statistical offices to review the statistical practices in these areas and implement internationally recommended standards.
- **Dissemination.** Most of the countries publish longer time series of the CPI, or these are available from other sources, e.g. IMF or UNECE databases. Some countries, however, only publish the latest figure in their news release, or the so-called cumulative index (showing the increase from December of the previous year) which hampers long-term comparisons.

8. The *Consumer Price Index Manual. Theory and Practice* (2004) provides internationally agreed recommendations, and is available in Russian. More guidance is provided in the *Practical Guide to producing Consumer price indices. A supplementary Handbook to the Consumer Price Index Manual*, which will be published by the UNECE this year. However, this guide will only be available in English.

Producer price indices (PPIs)

- **Coverage of establishments and commodities.** The PPIs in the EECCA countries are in general based on relative large samples of establishments and commodities, covering in some cases more than 90 per cent of total production value. There is thus scope for reduction of sample sizes (and response burden) in many countries, without harming the quality of the statistics, provided appropriate sampling frames and methods are applied.
- **Recording of basic prices.** Prices that enter the PPI should, in principle, be actual transaction prices net of taxes and including subsidies. However, in some cases the NSO has difficulties in obtaining the required information to assess the composition of the reported prices. The treatment of *transfer prices* constitutes similar measurement problems in some countries.
- **Methodological issues.** Concerning *index calculation methods* and the adjustment for *quality changes* a number of countries are using methods that may lead to bias in the overall PPI. While many countries apply recommended calculation methods, missing or insufficient adjustment for quality changes, which is known to lead to bias, appears to be a problem in quite a few countries. Thus, there is a need to review calculation methods and to implement and document proper methods for quality adjustments according to international recommendations.

- **Classification.** A majority of the countries use ISIC or NACE, or comparable national classifications for the PPI. A few countries use OKONH or SICNE⁴, which are not comparable with ISIC or NACE.
- **Dissemination.** Most of the countries publish longer time series of the PPI, or these are available from other sources, e.g. IMF or UNECE databases. A few countries only publish the latest figure in their news release, or the so-called cumulative index, and thus should further develop publication practices.

9. Two additional challenges should be mentioned, namely the production of **PPIs for services** (SPPIs) and **export and import price indices** (XMPIs). The development and regular production of these indices have proved to be difficult in practice and raises a number of separate problems, e.g. on how to define service units to be priced over time, and measurement problems for international prices (e.g. taxes, subsidies, transport margins, international transfer prices etc.).

10. The *Producer Price Index Manual. Theory and Practice* (2004) provides international standards or recommendations. It is available only in English but is being translated into Russian. A new international *Export and Import Price Index Manual* is expected to be published this year in English.

IV. BUSINESS STATISTICS

11. UNECE has been collecting information on statistical business registers (SBRs) from a number of EECCA countries every two years since 1998. On this basis, the main issues on statistical business registers may be summarized in the following points:

- **The diversity of SBRs between countries.** In general the SBRs in EECCA countries are more diverse than those of the EU countries, which to a large extent share common goals and formats. The diversity is due to a number of factors such as different legislation and different institutional set-up, but also lacking support for regional (or sub-regional) harmonization.
- **Statistics derived directly from the SBRs.** Almost all EECCA countries use the SBR for sampling, editing and grossing up survey results, imputation, data tabulation and as an information source for research and development statistics. Only a handful of the countries derive statistics directly from the SBRs. However, progress in this area can be seen from the extended coverage and the gradual expansion of variables recorded in the SBRs, and further improvements in this direction should be encouraged.
- **Business demography.** The gradual improvement of SBRs increases the potential for the production of business statistics, including also statistics on *business demography* and *entrepreneurship*. There is, however, need for more development of data sources and methods in order to establish statistics which matches business demography statistics in western European countries.
- **Implementation of revised ISIC/NACE classifications.** While most countries have implemented ISIC/NACE in their SBRs, the major current challenge is to adapt to the revised ISIC rev. 4/NACE rev. 2. This will require additional work and double coding for some period of time. Many countries, although not all, have developed plans and techniques for the implementation of the revised classification.

⁴ Soviet Industrial Classification of National Economy

- **Inclusion of multinational enterprises.** In contrast to the practice of many European countries, in the majority of the EECCA countries enterprise groups – be it all-resident or multinational ones - do not seem to be monitored for SBR purposes. There is thus a major challenge for the countries to start incorporating multinational enterprise groups in their registers since these are growing in importance also in this region.
- **Legislation.** In most EECCA countries, the legislation requires central registration of businesses and the administrative sources seem to be quite developed, which means that there is a large potential in utilizing existing administrative data sources in many of the countries. There are still, however, often legal or administrative obstacles that prevent NSOs from access to the registers. In some countries more or improved legislation on data-sharing and confidentiality issues may be needed. One way to improve this is better cooperation and information-sharing amongst various governmental and municipal institutions.

12. Surveys of the EECCA and Western Balkan countries conducted by the UNECE over the last two years have collected information on the availability of selected **short-term economic indicators** including industrial production index, retail trade turnover, turnover of services and wages and salaries. For these indicators the main issues and challenges may be summarized in the following points:

- **Publication of long time series.** More countries need to publish longer, coherent time series to facilitate comparisons over time and statistical analysis, including seasonal adjustment. Publication of figures for only the latest or two latest periods are not sufficient to allow judgement about the economic development or international comparisons.
- **Fixed based indices.** Time series should be published as indices with a fixed index reference period and/or as discrete absolute values for the months or quarters. There are still some EECCA countries that publish short-term indicators only in the form of cumulative data, which prevent temporal and international comparisons.
- **Publication of revised series.** Revised historical data should be published. However, not all countries publish revised historical data so that users are unable to obtain coherent time series.
- **Seasonal adjusted short-term statistics.** While many EECCA countries over the last two years have started to implement seasonal adjustment, many countries only publish seasonal adjusted data for a few selected series, and some countries do not publish any seasonal adjusted series at all. The lack of seasonal adjusted series seriously hampers the assessment of the economic development and international comparisons.
- **Services.** The growing services producing sector requires better statistical coverage. There is a particular lack of indicators on services in terms of e.g. the output of services. The development of services statistics is a major challenge for the EECCA countries.
- **Sample sizes and response burden.** There is scope for considerable reduction of sample sizes – and response burden – by improving sampling techniques and e.g. utilizing register data.
- **Documentation and publication policy.** In some countries more methodological documentation could be provided to the users. A number of statistical offices also still need to provide advance release calendars and would benefit from the formulation of a policy on publication of revised historical data.

ANNEX 1

UNECE Survey Reports:

Report on Rapid estimates of GDP in CIS and Western Balkan countries (2009)
<http://unstats.un.org/unsd/nationalaccount/workshops/2009/ottawa/AC188-S33b.PDF>

Non-Observed Economy in National Accounts – Survey of Country Practices (2008)
www.unece.org/stats/publications/NOE2008.pdf

Findings from the 2008 Business Register Survey in the CIS and SEE countries, is available from www.unece.org/stats/documents/2009.10.busreg1.htm

Report on international comparability of short-term statistics in the CIS and South-East European countries (2008).

Report on the seasonal adjustment pilot project (2008).

Report on Seasonal Adjustment Survey to the CIS and Western Balkans countries (2009).

The three reports are all available from: www.unece.org/stats/archive/02.08.e.htm