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**Measurement of non-market services and housing**

Paper submitted by OECD

## **Introduction**

1. The measurement of PPPs for non-market services has always been problematic in international comparisons. The use of input-price method does not give satisfactory results when countries are very different but on the other hand adoption of any other method like adjusting results for taking into account supposed differences in the productivity may "improve" results for some countries but for others results might turn worse. Until the measurement of volumes in the annual accounts is not more advanced it does not seem likely that anything better can be found for international comparisons, where the comparability problems are much more serious.

2. Nevertheless, non-market services are part of GDP and should be measured as well and transparently as possible. For achieving this the expenditure classification should be appropriate and the measurement of PPPs for expenditure categories consistent. This has been achieved only partly in the past. The questionnaires have been too difficult or inappropriate for countries to provide expenditure data by the required breakdown

3. The new SNA93/ESA95 also sets new requirements by adopting the "who pays" principle in the classification. In the old system, government consumption expenditure did not include purchases of goods and services other than those used in the intermediate consumption of service production. Any other purchases or reimbursements to households were recorded as transfers, and the expenditure of these transfers was recorded in household consumption expenditure. It is discussed briefly below how PPPs are intended to be estimated in the new classification framework.

## **Health**

4. In the SNA93/ESA95 three kinds of categories can be identified in the government consumption expenditure on health:

- Health benefits and reimbursements
- Production of health services
- (Minus) Receipts from sales

5. Health benefits and reimbursements consist of purchases of medicaments and private health services that are partly or wholly paid by government. In other words, the total expenditure for these goods and services is partly recorded under household consumption expenditure and partly under government consumption expenditure. Ideally, both parts of expenditures should be deflated by the same PPPs that are based on market prices, which gives consistent overall results (in effect, the shares of expenditures paid directly by households and the reimbursements households receive from government remain the same in volume terms as in nominal terms).

6. Production of health services is based on an input-price approach and the measurement requires data on all components of the production account. It is noteworthy that in the new classification the production account does not identify separately different kinds of health services

(i.e. in-patient, out-patient and other services). There is no need as such to have data by type of services. However, due to the difficulties of obtaining price data, PPPs for private hospitals have often been based on the input-price method also and the situation could remain the same in the future. Government PPPs have to be used as proxies but they are not "pure" for this purpose when they contain all kinds of health services.

7. Receipts from sales is a category that is getting more and more importance in many countries. It did not exist in the old PPP classification. The item is negative and its positive counterpart is in the main included in household consumption expenditure. Hence, for **achieving overall consistency**, their PPPs should be the same as those for these expenditures in household consumption, which means that their PPPs should in principle be based on market prices (and not PPPs of government service production).

8. Health services provided by NPISHs are required but only as a total. It has been assumed that for most countries the expenditures are not significant and data are possibly not available, which may not be true for all countries. For countries for which provision of services by NPISHs is significant, it might turn out to be necessary to require more detailed data.

## **Education**

9. In government consumption expenditure the expenditures on goods and services for final consumption are identified separately from expenditures for the production of education services, and also receipts from sales are identified. The logic is the same as for health services, so it is not necessary to repeat the description about how PPPs are measured for each category.

10. It is noteworthy that, as in the case of private hospitals, prices are rarely available to measure PPPs for private education. However, the use of PPPs based on the input-price method for private education is not necessarily a loss: even if comparable prices can be found they are perhaps not representative and, on the other hand, even strictly comparative prices would give only a rough volume measure (number of pupils/students) at best. Quality differences still remain unsolved. Moreover, in most countries the services are in the main provided by government.

## **Housing**

11. Government housing services were not shown separately in the old classification because they were not considered to be individual services. This might have resulted double accounting in some transition economies because housing services are estimated fully within household consumption but some expenditures on housing might have remained in government consumption expenditures.

12. In the new classification housing services are shown in one single category in government consumption expenditures, which may contain housing subsidies as well as provision of housing services especially in transition economies. The production account breakdown is not required

because in any case the same PPPs should be applied for household expenditures and for government expenditures. The PPPs are based on market rents for those countries where housing services in the national accounts are measured on the basis of market rents, and for other countries volumes are measured first and PPPs are then derived by dividing total nominal expenditures (government + household expenditures) by volumes.

13. The measurement of volume for housing is still under discussion in the Eurostat Dwelling Service Task Force. Questions to be solved are particularly:

- The model applied in the estimation of volume for transition economies will be based on the multiplication of quantity and quality indicators, but the detailed form of the model has not yet been solved.
- It is desirable to link transition economies with other countries by using more than one country as a link. Which countries will be used is still under discussion.

14. Finally, also for many countries applying market rents in the national accounts there are difficulties in measuring PPPs particularly for small houses. Rent markets do not necessarily exist and the same difficulties concern also the measurement of dwelling services in the national accounts. It is desirable that at least for this part of dwelling stock volume data are also collected and results are compared with the estimates based on the use of rent data.

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