

## **Comments on Chapter 20 of the updated 1993 SNA**

### **General comment**

Chapter 20 describes the treatment of single assets. In practice, capital services, consumption of fixed capital and net capital stock are estimated for a group of assets. An explanation of the process to get from capital services for individual assets to capital services for a group of assets would be desirable.

### **Specific comments**

Section D.1 and D.2: A problem with non-produced assets is that income derived from renting out non-produced assets is not treated as production, but as property income. This induces the registration of net losses when capital services of land are included in the production accounts of the owner of the non-produced assets. For instance when a company leases out land, there is no gross operating surplus from this activity. Consequently, when the capital services of land are included in the production accounts of the company, this leads to the registration of net losses. This problem should be explained in sections D.1 and D.2.

Section D.6: Some comments on the difficulties of estimating terminal cost would be helpful. Terminal cost will mostly exist for large, (possibly) polluting assets like nuclear power plants. For such assets, measurement of both the terminal cost and the moment of termination will be difficult.

Section D.7: When major repairs extend the service life of the asset, the example of the cost of ownership that is given in section D.5 can not be directly applied. In this case, the repairs will deliver benefits in future years when the original asset would have had no capital services or residual value. Although the net present value of both the original asset and the increase in capital services due to repairs can be added together to get the new value, the increase in service life seems to warrant a separate example.

Section E: For non-market production, only consumption of fixed capital is included in the output. This means that in estimating the capital services either the discount rate must be set at zero or the capital services will be larger than the gross operating surplus. Paragraph 20.54 seems to imply that the discount rate is set to zero, but this is not stated explicitly. Some elaboration on this issue would be desirable.