Statistical Ethics and Institutions

The argument for the quality of national official statistics being a global public good and its implications

Criteria for a country's official statistics being a global public good:

- (1) Non-excludability: Official statistics is available to all users, irrespective of whether they have paid for it or not. Improvements in the scope of official statistics or its quality are available to all users.
- (2) Non-rivalness: The use of the statistics by one user does not prevent other users from using it.

A country's official statistics is a global public good in the sense that it is a good which is non-rivalrous and non-excludable **throughout the whole world**

Examples of other global public goods:

- international financial stability
- climate change mitigation
- elimination of infectious diseases
- curtailing the proliferation of weapons of mass destruction

The demand for quality in a country's official statistics arises from the different types of users, e.g.:

- the government and state administration of the country producing the specific statistics
- the governments and state administrations of partner countries in the region
- Those of countries in other parts of the world (directly or through international organizations),
- the research/scientific community inside and outside the country,
- the domestic and international markets,
- the domestic public and the public of other countries.

So for an increment of quality in a country's official statistics,

Marginal Social Benefit = $Vertical Sum_i$ Marginal Private Benefit of User i (for i = 1, ..., n)

The supply side of quality in a country's official statistics is provided by the Marginal Social Cost of producing that quality

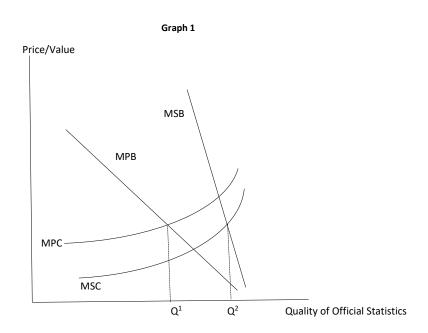
In the case of a country's official statistics there exists a **positive externality** in the sense that an extra increment of quality in such statistics reduces the cost of producing other goods/services.

Other producers affected:

- Producers of official statistics in other countries in the region
- Producers in regional institutions, especially if there is a degree of partnership and integration
- Producers of official statistics in countries around the world and in international institutions

Thus for an increment of quality in a country's official statistics,

Marginal Social Cost = Marginal Private Cost + Sum_j Marginal External Cost of other producer j (for j = 1,..., m)



Optimal quality of a country's official statistics: Q² - The intersection of the Marginal Social Cost (MSC) line and the Marginal Social Benefit (MSB) line. This provides for higher quality than that provided by the intersection of the Marginal Private Benefit (MPB) and Marginal Private Cost (MPC), Q¹, which would likely be produced voluntarily. Also this provides for higher quality than that provided by the intersections of MSB and MPC or of MPB and MSC.

Net social benefit (area between MSB and MSC up to their intersection) for the world as a whole is maximized when the optimal quality of a country's official statistics is produced.

In conclusion:

- 1. Self-monitoring and self-regulation of countries in the production of quality in official statistics would tend to lead to a level of quality in official statistics that is not socially optimal from the perspective of the world community.
- 2. Effective monitoring of the implementation of statistical principles and ethics in national official statistics and thus of the quality of these official statistics needs to take

place through regular evaluation, verification, follow-up and published reports in the form of audits by an **independent international institution at the global level**.