

The paper addresses the problem of integrating two business sample surveys in order to derive complex economic indicators. The integration is performed via statistical matching by using auxiliary information stemming from a business register.

The opportunity is given by the recent evolution of the production model of Structural Business Statistics (SBS) at the Italian National Statistical Institute (Istat) into an integrated framework where the core of the information content is represented by administrative sources. Sample surveys are conducted in order to estimate only not directly available information. The SBS variables are registered in an exhaustive archive, called Frame, covering the whole population of enterprises as defined by the SBS European Regulation.

The two sample surveys are the Community Innovation Survey (CIS) and the Information and Communication Technologies (ICT) survey. It is worth noting that the core variables of each survey are not registered in the Frame. Examples of such variables are binary indicators regarding innovation status, type of innovation activities, use of mobile devices or involvement in e-commerce activities. In our purposes, complex economic indicators may be expressed as combinations of variables registered in at least two of the three sources, i.e. Frame, CIS and ICT.

Data integration strategies may involve different aspects. Firstly depending on the use of auxiliary information at micro or at macro level, synthetic dataset or estimates of indicators may be obtained, respectively. Secondly, the choice of different reference periods of the sources induces differences and constraints in the output of the integration process. Finally, the exploitation of possible existing overlaps or relationships between variables registered in more than one source is investigated.

The paper illustrates the results obtained by implementing the integration strategies finalized to a selection of economic indicators.