Business Registers: The use of SBRs in meeting the requirements of National Accounts and SDGs

Norbert Rainer
Regional Workshop on National Accounts and the development of Economic Statistics Infrastructure within SDGs Framework
15 – 18 May 2017, Amman, Jordan
Content

- What is a statistical business register?
- Why do we need a statistical business register?
- Relevance of statistical business registers for integrated economic statistics
- Use of statistical business register for national accounts (NA) and sustainable development goals/indicators (SDG)
- Main requirements of statistical business registers serving NA and SDG
- Resume
- Excursus: UNECE Guidelines on statistical business registers
What is a Statistical Business Register?

- Structured database of economic units (legal, administrative, statistical) in a territorial area (country) with their characteristics (location, size, type of economic activity) and relationships
- Regularly/continuously updated using administrative and statistical sources
- Maintained by a (national) statistical office
- Used for statistical purposes
Why do we need a Statistical Business Register?

- Provides statistical frame for business surveys and grossing-up
- Coherence between different surveys
- Reduction in duplication and inconsistent coverage base data
- Provides consistent reference point for all classifications
- Combines administrative and survey data
- Increased timeliness of economic unit population
- Provides basis for non-response data editing
- Supports survey management and monitoring of response burden
- Time series for business demography information
Statistical Business register activities

**Input**
- Administrative data
- Statistical data
- Survey feedback
- Other register data

**Activities/processes**
- Maintenance and update
- Survey support
- Coordination and cooperation
- Quality control

**Output**
- Register data base
- Survey frames
- Links/data to other registers
Relevance of SBR for integrated economic statistics (1)

Business registers have a central role in integrated economic statistics. They provide a **common universe for sampling and a uniform classification of firms**, which promote consistency in collected data across surveys.

Moreover, they allow the **integration of data from administrative sources and surveys**.

A business register **combines different sources**, such as tax records, other administrative records etc. using unique identifiers.

All survey populations drawn from the business register and all administrative data matched to it, ensures that information from different data sources is classified consistently.

The frame is to support survey sampling and stratification required to measure fully all sectors of the economy.

Consequently, the register needs to contain data about units (including identification code), the name and address, a code identifying activities, variables about their size and information about their life cycle.

Use of statistical business registers for National Accounts and Sustainable Development Indicators

- Backbone role of SBR for all business statistics
  - SBR → frozen frame → business statistics → NA

- Use of SBR for SDG
  - SDG that are related to GDP
  - and SDG using directly SBR data/business data
Backbone role of SBR
Indicators related to GDP:

- **Goal 1:** End poverty
  - SDG indicators: 1.5.3, 1.a.3
- **Goal 7:** Affordable and clean energy
  - SDG indicators: 7.3.1, 7.b.1
- **Goal 8:** Decent work and economic growth
  - SDG indicators: 8.1.1, 8.2.1, 8.4.1, 8.9.1
- **Goal 9:** Industry, innovation and infrastructure
  - SDG indicators: 9.2.1, 9.5.1
- **Goal 10:** Reduce Inequalities
  - SDG indicators: 10.4.1
- **Goal 11:** Sustainable cities and communities
  - SDG indicators: 11.5.2
- **Goal 12:** Responsible consumption and production
  - SDG indicators: 12.2.2, 12.c.1
- **Goal 14:** Life below water
  - SDG indicators: 14.7.1
- **Goal 17:** Partnerships for the goals
  - SDG indicators: 17.1.1, 17.3.2
SDG indicators indirectly and directly based on SBR

- Indicators with direct use of SBR

  Goal 2: Zero hunger
  - 2.3.1: Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size

  Goal 8: Decent work and economic growth
  - 8.10.1 (a): Number of commercial bank branches

  Goal 9: Industry, innovation and infrastructure
  - 9.2.1: Manufacturing value added as a percentage of GDP
  - 9.2.2: Manufacturing employment as a percentage of total employment
  - 9.3.1: Proportion of small-scale industries
  - 9.b.1: Proportion of medium and high-tech industry value added in total value added
Main requirements of statistical business registers serving National Accounts and Sustainable Development Indicators

1. High coverage of economic units
2. Appropriate statistical units
3. Use of administrative sources
4. Efficient maintenance strategy
Requirement: High coverage of economic units (1)

Target coverage of SBR

- In principle all units in the national economy that contribute to GDP
- Target for SBR coverage is the 2008 SNA production boundary (2008 SNA: 6.26)
  - Excludes household activities for production of services for own use, except services provided by owner-occupied dwellings and services produced by employed domestic staff
  - Production activities of all institutional units that have economic production
  - Include both market and non-market producers (Government units and NPISH)
Requirement: High coverage of economic units (2)

Difficult areas to cover

- In practice there are problems in trying to cover
  - Non-market producers
  - Non-observed economy, including informal sector, underground and illegal activities

Five sectors into which institutional units are grouped:

- Non-financial corporations
- Financial corporations
- Households
- Non-profit institutions
- Government units
Requirement: High coverage of economic units (3)

- Market producers:
  - Financial and non-financial corporations:
    Units that are market producers and whose principal activity is the production of goods and services, i.e. most important subset of corporations: registered profit oriented corporations
    Should be no coverage difficulty
  - Household (unincorporated) enterprises
    Household registered enterprises, self-employed enterprises with our without employees
Requirement: High coverage of economic units (4)

Non-profit institutions serving households:
Legal or social entities created for the purpose of producing goods and services, but not for sale on the market
Ideally all non-profit institutions should be included in the SBR

Government units:
Units created as kinds of legal entities, established by political processes that have legislative or executive authority over other institutional units within a given area
Should be included in the SBR
Recommendations

- Cover as much production as possible
- Taking into account
  - Available data sources and their limitations
  - International standards and recommendations
  - Maintenance costs
- Inform users, especially survey statisticians and national accountants, of coverage criteria and types of units that are included/not included in the SBR
- Assess the economic significance of units groups not covered

Requirement: High coverage of economic units (5)
Requirement: Appropriate statistical units (1)

- The main statistical units used internationally are:
  - Enterprise group
  - Enterprise
  - Establishment, also called local kind-of-activity unit (LKAU)
  - Kind-of-activity unit (KAU)
  - Local unit

- For each of these types of units, a set of characteristics is held in the SBR, such as economic activity code, size code, geographic location, date of entry, foreign ownership, and trader or non-trader

- Set of statistical units broader than what is actually incorporated and maintained in the SBR of a country
Requirement: Appropriate statistical units (2)

Administrative world

- Legal and administrative units

Statistical world

- Enterprise Group
- Enterprise
- Establishment (local kind-of-activity unit)

Diagram showing the relationship between administrative and statistical units.
Requirement: Appropriate statistical units (3)

- **Enterprise**: consists of one or more legal units, in rare cases, part of a legal unit
- **Establishment**: Each enterprise consists of one or more establishments (local kind-of-activity units)
- **Enterprise group** comprises one or more enterprises
- not developed in all countries, but increasingly important with globalisation and market concentration
- **Multinational enterprise group (MNE)** is an enterprise group with operations in more than one country
Definition of an enterprise according to ISIC Rev. 4:

An enterprise is an economic transactor with autonomy in respect of financial and investment decision-making as well as authority and responsibility for allocating resources for the production of goods and services. It may be engaged in one or more productive activities.
Definition of an establishment according to ISIC Rev. 4:

The establishment is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.
### Requirement: Appropriate statistical units (6)

**Statistical unit model:**

<table>
<thead>
<tr>
<th>Partition by activity</th>
<th>Partition by location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>Enterprise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local unit</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Kind-of-activity unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Establishment (Local kind-of-activity unit)</td>
</tr>
</tbody>
</table>
Requirement: Use of administrative data (1)

SBRs created and maintained primarily using administrative sources

- Principle 5 of the UN Fundamental Principles of Official Statistics:

  “Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.”

- Administrative data are data containing information that is not (primarily) collected for statistical purposes
Requirement: Use of administrative data (2)

Main types of administrative sources for SBS

- Business registration/licence register
- Tax register
- Company/trade association, chamber of commerce
- Social security register
- Labour and employment register
- Sector specific sources, etc.
Requirement: Use of administrative data (3)

Advantages using administrative sources

- **Coverage**: complete, or almost complete coverage of the target population
- **Costs**: administrative sources available free of charge or for marginal costs of extraction
- **Response burden**: no response burden
- **Timeliness**: administrative sources continuously available, increases timeliness and quality of the SBR
Requirement: Use of administrative data (4)

Probable problems when using administrative sources

- Conceptual differences
- Unique identifiers may not be given
- Administrative data structures may change
- Various quality issues

Recommendations:

- Create legal basis for access
- Create knowledge of the administrative sources
- Build relationships with administrative data suppliers, including formal agreements
- Coordinate use of administrative sources within the NSO
Requirement: Efficient maintenance strategy (1)

SBR maintenance

- SBR has to be maintained to reflect the continuous changes in the economy
  - New statistical units, ceased units
  - Changes in the values of the characteristics
  - Dates of changes
- Requires constant updating of units, links and characteristics
- Maintenance should be user driven
Requirement: Efficient maintenance strategy (2)

Maintenance strategy should consider

- Available data sources – administrative data and feedback from surveys
- Maintenance groups of statistical units for efficiency and cost effectiveness – e.g. resources to update a statistical unit should reflect its importance and impact on published statistics and take the propensity to change into account
- Time dimension – establish updating schedule, timing of updates
Requirement: Efficient maintenance strategy (3)

Elements of maintenance concepts
- Priority rules of sources
- Continuity rules
- Demographic events
- Stability rules
- Treatment of errors

Recommendations
- Explore user needs
- Develop maintenance strategy based on international concepts and recommendations
- Consider need for flexibility of the maintenance procedures
- Check and improve quality
Resume (1)

- SBRs improve the consistency and quality of economic statistics and thus also of all statistics based on business statistics, such as national accounts
- Costs of establishing and maintaining SBRs are considerable, but should be seen in the longer run and vis a vis to the costs of economic censuses and other data collections; increase in quality of business statistics
- Appropriate resources, including IT resources required
Resume (2)

- Establishment of an SBR is a longer term action; the development should be done in a stepwise procedure, however, the ultimate concept should be clear from the beginning
- Base SBR development on international standards and recommendations
- Have a good cooperation inside the NSO, especially to the survey and the national accounts statisticians
- Have a good cooperation with the administrative authorities that deliver data for your SBR
**Excursus:**
Guidelines on Statistical Business Registers

United Nations Economic Commission for Europe (UNECE)
New York and Geneva 2015
ECE/CES/39, 233 pages
https://www.unece.org/index.php?id=40574
Structure of the Guidelines (1)

- Chapter 1 - Introduction
- Chapter 2 - Roles of SBR
- Chapter 3 - Coverage of SBR
- Chapter 4 - Units of SBR
- Chapter 5 - Characteristics of units
- Chapter 6 - Data sources for SBR
- Chapter 7 - Maintenance of SBR
- Chapter 8 - Survey frame methodology
- Chapter 9 - Dissemination
- Chapter 10 – Quality of SBR
- Chapter 11 - Key considerations in establishing SBR
- Chapter 12 - Topics for further work and research
Structure of the Guidelines (2)

Annex A  Characteristics of Units by Unit Type
Annex B  International Classifications
Annex C  Examples of Statistical Business Registers
Annex D  Examples Relating to SBR Quality Assurance
Annex E  Additional Concepts and Procedures
Glossary
References
Thank you very much for your attention!

Norbert Rainer
norbert_rainer@aon.at