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**THE ROLE OF THE BUSINESS REGISTER IN COORDINATING ACCOUNTING AND
OTHER ADMINISTRATIVE DATA FOR STATISTICAL USERS**

**USE OF ADMINISTRATIVE SOURCES FOR IDENTIFICATION OF ENTERPRISE
GROUPS IN SLOVENIA**

Submitted by Statistical Office of Slovenia

The meeting is organised jointly with the Commission of the European Communities (Eurostat) and the Organisation for Economic Co-operation and Development (OECD)

SUMMARY

In accordance with the draft proposal amending the regulation on statistical business registers (No. 2186/93), groups of enterprises, which with the globalisation are becoming ever more interesting statistical observation units, will become obligatory units of statistical registers.

Since the Statistical Office of the Republic of Slovenia (SORS) does not have such a register as anticipated by the new proposed amended regulation, it is obliged to set it up. The project of setting up the Enterprise Group Register has started with the prephase of analysing the available administrative and statistical sources that could serve for that purpose. Based on this analysis, the main three sources were selected: the central register of dematerialised securities and monetary settlement of securities transactions for joint stock companies, the court register as a potential source for identification of control over other legal units and the Bank of Slovenia with its reports on capital investment among residents and non-residents.

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From the register of dematerialised securities data on the number and type of securities, the holders and the quantity of their securities were received for joint stock companies. The data were transformed so that the relationship “economic operator–holder–share of the holder in the economic operator” was determined. The court register was indicated as a priority source for limited liability companies, their founders and partners, and their shares. These data were also transformed into the relationship “economic operator–holder–share of the holder in the economic operator”. The Bank of Slovenia with its survey data on investment of residents and non-residents for joint stock companies and limited liability companies represented the main source for identification of shares and control of holders abroad. With all the relevant sources the contract for receiving the data free of charge and in the prescribed electronic form was made. On the basis of the above mentioned data, the common table of relationships was made. This table represented the main input in the algorithm procedure for identification of enterprise groups in Slovenia.

I. INVESTIGATION OF AVAILABLE SOURCES

1. Since Slovenia is a very register-oriented country not only in the statistical domain but also in the field of administration that serves very efficiently for the statistical purpose too, all the potential sources were found out taking into account the available legal basis for maintaining different kinds of available registers. Sources that were indicated as sufficient are described below.

A. Central Securities Clearing Corporation

2. The Central Securities Clearing Corporation (KDD) was founded on 10 January 1995 as the first and only institution in Slovenia to provide central securities custody services, clearance and settlement of securities transactions and maintenance of the central registry of holders of dematerialised securities in the Republic of Slovenia. It is a joint stock company, established by law regulating the securities market for performing the services of calculation, equalisation and providing payment on the basis of securities transactions on organised securities market. As regards the central register, the supervision over the Central Securities Clearing Corporation is in the hand of the Securities Market Agency. KDD's operation is regulated by the Securities Market Act on the basis of which KDD was issued the operating licence by the Securities Market Agency. At the outset maintenance of the central registry was regulated by the Government's Decree on Dematerialised Securities and on its basis the Government of the Republic of Slovenia authorised KDD to maintain the central registry and carry on activities related to dematerialised securities. In 1999 the Dematerialised Securities Act was passed which substituted the Decree.

3. The fundamental task of the Central Securities Clearing Corporation is to keep the central register of dematerialised securities and monetary settlement of securities transactions for joint stock companies.

4. The central register of dematerialised securities is the central informatised database into which the rights from dematerialised securities, holders of these rights and eventual rights of third parties on securities are entered. The legal holder of a dematerialised security is the person (legal or natural, national or foreign) to whose benefit the dematerialised security is recorded in

the central registry. Only the legal holder may exercise the rights from the dematerialised security.

5. The Central Securities Clearing Corporation, which has data on ownership shares of parent companies in daughter companies, is thus the source of data for identifying parent companies of joint stock companies on the territory of the Republic of Slovenia. Control can be identified with the share of the holder that is a legal or natural person on the territory of Slovenia or abroad. Control over Slovenian joint stock companies is defined with the ownership share of 25 per cent (on the basis of the national legislation on takeovers). The data from the source were transformed so that the relationship “economic operator–holder–share of the holder in the economic operator” was determined. Holders can also be legal or natural persons as non-residents. According to our analysis, these data are very reliable; however, it has to be mentioned that these data are limited only to joint stock companies.

B. Court register

6. The Supreme Court of the Republic of Slovenia (VSRS) is the highest appellate court in the state. It functions primarily as a court of cassation. It is a court of appellate jurisdiction in criminal and civil cases, in commercial lawsuits, in cases of administrative review and in labour and social security disputes. It is the court of the third instance in almost all the cases within its jurisdiction. The grounds of appeal to the Supreme Court (defined as extraordinary legal remedies in Slovenian procedural laws) are therefore limited to issues of substantive law and to the most severe breaches of procedure. One of the activities of the Supreme Court is also to maintain the Court Register.

7. The legislation stipulates that all companies-legal units with the exception of small and medium-sized sole proprietors must be registered in the Court Register (VSRS). Data on the entity of entry are kept under its identification number in the central informatised database. The identification number for legal and natural persons in Slovenia is assigned by the Administrative Business Register and is used in almost all administrative and statistical registers. That kind of approach enables to link the administrative data from different sources as efficiently as possible.

8. Entry into the court register means that conditions for establishing individual forms of business entities, especially companies, have been fulfilled and that the entered business entities can perform certain activities because at registration the existence of legal conditions is ascertained and legal protection and legitimacy of operation are protected. By entry into the court register, companies obtain the status of legal persons. Beside the ordinary variables, it comprises the structure of ownership for all legal persons that are subject of entry in the register in absolute values.

9. Due to the above mentioned facts, the court register was found out as a primary source of data for identifying the parent company for limited liability companies. Data from the court register enable to identify the control with the share of investment in the company of the holder that is a legal or natural person on the territory of the Republic of Slovenia or abroad.

C. Agency for Public Legal Records and Related Services

10. The Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) was established in July 2002. AJPES performs various statistical tasks and tasks related to the provision of information such as: collection, processing and communication of data from annual reports prepared by business entities, collection and processing of financial accounts statistics, publication of annual reports returned by companies and sole proprietors via the AJPES web portal. AJPES also carries out different kinds of statistical surveys (e.g. on the revenues and expenses of legal entities, payments for investments made by legal entities, their salaries and overdue unsettled liabilities, etc.). In addition to that, AJPES also manages various registers and data records: the Slovenian Administrative Business Register, the Register of Non-Possessory Liens and Seized Movable Property. AJPES also collects information regarding the credit standing of individual legal entities operating in Slovenia, Croatia, Macedonia and Serbia. In addition to that, it performs, at least once per month, the multilateral set-off of liabilities and receivables between legal entities which declare their liabilities for set-off.

11. As it is mentioned above, companies and individual private entrepreneurs submit to AJPES annual financial statements and other data for publication and national statistics. Slovenian parent companies of one or several companies also have to submit to AJPES the consolidated annual financial statement comprising the consolidated balance sheet, consolidated profit and loss account, appendix with explanations to consolidated accounts, consolidated statement of changes in capital, consolidated financial report, and operating report of companies included in the consolidation.

12. Companies that were established in the calendar year by merger or by break-up of companies must submit additional data referring to the situation from 1 January to the day before the change and from the day of the change to 31 December after the change of status.

13. SORS thus receives from AJPES the information on identification numbers of parent and daughter companies as well as the names and headquarters of companies for: parent company that is obliged to prepare the consolidated annual report, parent and daughter company that is obliged to prepare the consolidated annual report, and daughter company within a parent company. These data are available by 28 February for the previous year. Unfortunately, consolidated accounts are not standardised and because of that are not electronically processed, yet. The above mentioned data from AJPES as for now are used only for control or comparison of links between units derived from the Court Register and the Central Register of Dematerialised Securities. During 2007 SORS started the discussions for co-operation in the field of electronic processing of consolidated accounts, which will increase the potential use of available data in the domain of enterprise group statistics.

D. Bank of Slovenia

14. One of the Bank of Slovenia activities is to collect reports on capital investment among residents and non-residents. In this survey the subjects of reporting are:

- (a) Data on holdings of Slovene residents abroad (directly affiliated investments abroad);

- (b) Data on holdings of directly affiliated companies abroad in other companies abroad (indirectly affiliated investments abroad) on condition that directly and indirectly affiliated investments equal or are greater than 10 per cent;
- (c) Operation indicators for directly affiliated companies abroad on condition that individual directly affiliated investments exceed 50 per cent;
- (d) Data on holdings of non-residents in companies in Slovenia (directly affiliated investments in Slovenia);
- (e) Data on holdings of directly affiliated companies in Slovenia in other companies in Slovenia (indirectly affiliated investments in Slovenia) on condition that directly and indirectly affiliated investments equal or are greater than 10 per cent;

Entities obliged to report (i.e. reporting units) are:

- (f) Residents – legal persons and individual private entrepreneurs that in the reporting year owned participating interest or shares of legal persons abroad, founded an affiliate abroad (performing profit activity) or owned real estate abroad;
- (g) Residents in which in the reporting year non-residents (legal and natural persons) are owners of participating interest or shares of legal persons abroad, founders of an affiliate (performing profit activity), and (co)founders of an institution or foundation in the Republic of Slovenia.

15. Reports are submitted to the Bank by companies by 20 April for the previous year.

16. The Bank of Slovenia is thus a potential source of data for identifying direct and indirect control of a resident company abroad and of a non-resident in a resident company. The Bank of Slovenia has data on investment of Slovene enterprises abroad and investment of foreign partners in Slovenia. A review of these data showed that the data source is very reliable and accurate. From their forms we obtain all investment of non-residents in Slovenia, investment of reporters in Slovene companies and investment of directly affiliated reporters abroad. SORS receives data in electronic form so that directly and indirectly affiliated investments abroad can be linked with the so-called register number.

II. PROCESSING THE DATA

A. Making a contract with the relevant institutions

17. To cover in the best possible way the population of economic operators that are possible candidates for the groups, SORS used three potentially the most available sources described above: the data from the central register of dematerialised securities, the data from the central court register, and the data on capital investments of residents and non-residents, which are collected by the Bank of Slovenia. With all the relevant institutions SORS made a contract for providing the data for constitution of enterprise groups. On the basis of the National Statistics Act, for the purpose of rational implementation of the activities of the national statistics, SORS makes use of identifiable individual data from various official and other administrative data collections of the public and private sectors (records, registers, databases, etc.) which are kept on

the basis of law or written consent of the individual. In compliance with the Act, register holders must, free of charge, submit to SORS all the requested information.

18. On the basis of three main sources three tables were created presenting the shares from raw data and three tables presenting the shares from appropriately statistically processed data. Appropriate lists of codes were also prepared. In addition to the relationship “economic operator–holder–share of the holder in the economic operator”, the tables also present data on the origin of the economic operator and holder, their legal organisational form, the country in which they were founded and their address. All resident legal units have their registration numbers via which all entries have been linked to the Statistical Business Register and in this way the data editing was completed. The tables for non-residents do not have registration numbers and that was one of the main problems encountered during the processing of source’s data.

B. Preparation of a common database of shares and control based on three main sources

19. The next step in the development of the Enterprise Group Register was to prepare a common database of shares and control by merging all three sources. This task was composed of the following four main activities:

- (1) Preparation of guidelines for creating the common database of shares and control relationships between economic operators.
- (2) Programming of the common database of financial relationships and control.
- (3) Filling the common database.
- (4) Control of data in the common database of financial relationships and control.

20. Methodological and technical guidelines for creating and filling the summary table of shares, where the basis is still the relationship “economic operator–holder–share of the holder in the economic operator”, were prepared on the basis of analysing data in previous tables containing shares from individual sources. The filling priorities were as follows:

- (a) From the KDD all data for resident joint stock companies were used;
- (b) From the VSRS all data for resident limited liability companies were used;
- (c) In the BS there are four types of relationships between the economic operators and holders. Both of them can be residents or non-residents. Economic operators can be joint stock companies or limited liability companies. The four possibilities are:
 - (i) Both the economic operator and the holder are residents;
 - (ii) The economic operator is a resident and the holder is a non-resident. Entries under i) and ii) could also appear in KDD and VSRS data. It was necessary to eliminate double entries (one of them). Data coupling was implemented with a special procedure in SAS under the following conditions:
The economic operator’s registration number must always be coupled, which can be followed by one of the following conditions:
 - a. The name of the holder is the same;

- b. The name of the holder from the BS is in the name of the holder from the KDD;
 - c. The name of the holder from the KDD is in the name of the holder from the BS;
 - d. The address of the holder is the same;
 - e. The address of the holder from the BS is in the address of the holder from the KDD (due to possible abbreviations);
 - f. The address of the holder from the KDD is in the address of the holder from the BS (due to possible abbreviations).
- The same procedure was repeated with data from the VSRS. Coupled data were manually checked and inadequate records were eliminated.

- (iii) The economic operator is a non-resident and the holder is a resident;
 - (iv) The economic operator is a non-resident and the holder (its holder is a resident) is a non-resident
- Data under (iii) and (iv) were taken over in full.

21. In addition to the ownership share of the holder in the economic operator, the control over the economic operator was identified. A company is controlled if it meets the following criteria:

- (a) For joint stock companies if the share is over 25 per cent (on the basis of the national legislation on takeovers);
- (b) For limited liability companies if the share is over 50 per cent (according to Eurostat recommendations);
- (c) For foreign companies if the share is over 50 per cent (according to Eurostat recommendations).

22. The data in the common table of shares and control represented the main input data in the algorithm for construction of enterprise groups.

C. Programming the algorithm for identification of enterprise groups

23. The algorithm was programmed on the basis of direct or indirect relationship of the parent unit over the daughter unit that is managed in the common database of shares and control based on three main sources described in the previous item.

24. The algorithm operates by combining the top-down and the bottom-down approach, so that in an efficient way in addition to the group head also the identification of all its units is provided.

25. In the first stage every unit that appears in the common table of relationships represents the starting group of enterprises. Further on the program operates according to the bottom-up principle, taking into account direct and indirect control. The unit is evaluated by searching for the appropriate parent unit which controls it, so that the unit is moved to the group which controls it. Then the algorithm follows a top-down approach identifying all daughter units in a

group by the direct control method. This cycle is repeated as many times as necessary to appropriately classify all units into groups. Units that no one controls are eliminated. In the final phase automatic control of the group is implemented; every unit is assigned its hierarchical level and the group head. Thus the identification of groups is finished.

26. With the appropriate tool a graphic presentation of the group is prepared, including some general data on its component parts (name of the unit, country of the unit, ownership share). In the future these presentations will be updated with data on activity, employees and income, both for the individual units and at the group level. For preparing the graphic module, we selected between Visio and GoDiagrams Win Professional, the main advantage of GoDiagrams is good presentation of both small and large groups and in contrast to Visio is a manage.net library.

27. Graphic presentation of groups greatly facilitates manual reviewing of the correctness of forming groups and will be very useful especially for those future users that are not familiar working with groups and need a presentation of groups in a clear, simple and user-friendly way.

D. Linking the data from the algorithm with the Statistical Business Register

28. Data as results of the algorithm will in the second phase be linked with the data from the Statistical Business Register in order to obtain and recalculate some general data for units of enterprise group (number of employees, main activity code, turnover, etc.). With this approach the pilot national register will be set out. The next step is planned for 2008 to upgrade it as a transactional database.

III. PROBLEMS ENCOUNTERED AND SOLUTIONS FOUND OR PROPOSED

29. The majority of problems in first main tasks on the way to constitution of groups were encountered at the beginning of the project, when we collected and harmonized data from different sources.

A. Technically unparalleled content of sources

30. Problems occurred at the beginning of the process of the implementation of enterprise groups, when we collected and harmonized data from different sources. We have used three main sources which are maintained by different institutions. They are not linked and their data are used for different purposes, so we had to transform the data into a technically and methodologically comparable form. The data were transformed so that the relationship “economic operator–holder–share of the holder in the economic operator” was determined. This relationship is the basis for implementation of control, ownership and association with the enterprise group. In that way we could pull the transformed data into one table which is the basis for preparing enterprise groups.

B. Individual records concerning economic operators can appear in several sources at the same time

31. Economic operators and identical relationships “economic operator–holder–share of the holder in the economic operator” can appear in more than one administrative source at the same time. We designed the priority of source for individual type of company to provide uniformity. We have used three administrative sources to cover in the best possible way the population of economic operators that are possible candidates for the groups. Because of that approach, rules of priority have to be settled out that enable us to make the data editing as efficiently as possible and to check and process the data on the couples simultaneously.

C. The identifier of non-residents

32. One of the most difficult problems encountered was the identification of non-residents. The data for non-residents do not have registration numbers (unique identifier) and they appear in different sources at the same time. We could identify them only considering name, address and state. However, names and addresses in different sources are not written down uniformly, so we used matching (matching rules) by certain criteria for selection and finally checked the entries manually which could increase the mistakes.

IV. CONCLUSION

33. The paper shows the first steps done in constitution of the Enterprise Group Register in Slovenia that started to be set up from scratch. SORS is mainly oriented towards the usage of available sources from different kinds of national registers kept by relevant institutions. Since Slovenia is a very register-oriented country that supports the usage of unique identifier in all administrative files, we realised that there is no need to use commercial sources as the basis for identification of national and truncated enterprise groups on one hand but on the other hand there is a strong need to link the data on units abroad with other relevant sources like the Euro Group Register or individual other national registers that will become one of the next challenges in the future.
