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METHODOLOGICAL GUIDELINES

**ON GENERATION OF THE SAMPLIMG POPULATION OF SMALL-SIZED ENTERPRISES**

**FOR CAPITAL INVESTMENT SURVEY**

Kyiv – 2011

**Summary**

The Methodological Guidelines on Generation of the Sampling Population of Small-Sized Enterprises for the Capital Investment Survey (hereinafter – “the Methodological Guidelines”) disclose theoretical and methodological principles of generation of the sampling population for capital investment survey. The document focuses on determining limits and principles of generation of the sampling frame, building up its design, specifically, stratification, calculation of the sample volume on the whole and by strata, selection of units for field survey. Quality of generation procedure for the sampling population based on the simulation study by Monte Carlo method has been verified.

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**List of key symbols and abbreviations**

**List of abbreviations**

|  |  |
| --- | --- |
| USREOU | – Uniform State Register of Enterprises and Organisations of Ukraine; |
| NACE (KVED) | –  Classification of Economic Activities (DK 009:2005); |
| COATSU | – Classifier of Objects of Administrative and Territorial System of Ukraine  (DK 014-97); |
| CISE | – Classification of Institutional Sectors of Economy (valid of 18.04.2005 ); |
| COLFB | – Classification of Legal Forms of Business (DК 002:2004); |
| SBR | – Statistical Business Register. |

**List of key symbols**

|  |  |
| --- | --- |
|  | – quantity of units in the general population; |
|  | – quantity of units in the sample, volume of the sample; |
| *H* | – quantity of strata; |
|  | – stratum number, ; |
|  | – volume of the general population in stratum *h*; |
|  | – quantity of sample units in stratum *h*; |
|  | – value of the estimated attribute for *ith* unit in stratum *h*; |
|  | – value of additional attribute for *ith* unit in stratum *h*; |
|  | – mean value of the estimated attribute in stratum *h*; |
|  | – mean square deviation of the estimated value in stratum *h*; |
|  | – domain |

**FOREWORD**

The Methodological Guidelines contain general provisions, criteria for generation of the sampling frame for capital investment survey, principles of stratification, detection of outliers, calculation of the sample volume, and description of selection procedures. The Annexes include justification of selected methods and procedures. The calculations made use of statistical data processing package SPSS, simulation study was made with the help of the programming language R.

The Methodological Guidelines were developed by the STC for statistical research referring to the Strategy for State Statistics Development until 2012 within the framework of scientific and research activities as requested by the State Statistics Committee of Ukraine.

The Methodological Guidelines are meant to be used in practice of state statistical offices, as well as for academic and educational purposes.

***The goal*** of the Methodological Guidelines is development of a methodology for sampling population generation to carry out capital investment survey on a sampling basis with regard to small-sized enterprises. Implementation of the Methodological Guidelines in the statistical practice will reduce respondent burden and enable obtainment of higher quality information on capital investments. .

**All calculations given in these Methodological Guidelines were made based on data of Form No.2-investments (annual) “Capital Investment” for 2009.**

**1 GENERAL PROVISIONS**

**1.1 Description of the state statistical capital investment survey**

Capital investment survey is a state statistical survey that is made continuously with quarterly and annual frequency, based on European standards and is in compliance with the country’s current economic situation.

State statistical capital investment survey is made using the forms: No. 2-investments (annual) ”Capital investments, disposal and amortisation of assets” and No. 2-investments (quarterly) ”Capital investments”. Capital investment survey covers all legal entities – enterprises, establishments, institutions, state agencies and local self-government bodies who had capital investments.

**The capital investment survey** is aimed at obtaining information about amounts of absorbed capital investment to meet the needs of the national accounts system, price statistics, state agencies and other users.

Brief description of the survey is given in Table 1.1.

Table 1.1

**Brief description of the capital investment survey**

|  |  |
| --- | --- |
| Economic activities | • All economic activities according to NACE: А – О |
| Geographic coverage | • All regions of Ukraine (27) |
| Unit of observation | • Enterprise |
| Frequency | • quarterly;  • annual |
| Reporting form | • No. 2-investments (quarterly) “Capital investment”;  • No. 2-investments (annual) ”Capital investments, disposal and amortisation of assets” |
| Main characteristics of the survey | • Amount of capital investments |
| Survey type | • Quarterly:  totally enumerated – large- and medium-sized enterprises recognised as such by law;  sampling – small-sized enterprises recognised as such by law;  • annually: totally enumerated |
| Result dissemination levels | • national level;  • regional level;  • economic activities;  • institutional sectors of economy;  • legal forms of business |

**1.2 Problems and tasks of the sample survey of capital investments**

Enterprise populations for the capital investment survey are generated based on the Statistical Business Register (hereinafter – “the SBR”) in December preceding the reporting year. This is a list of economically active enterprises in economic activities (sections А – О according to NACE), all institutional sectors of economy, regions and legal forms of business.

Population generating criteria are given in Table 1.2.

Table 1.2

**Criteria of generation of enterprise populations for the capital investment survey**

|  |  |
| --- | --- |
| Unit of observation | * Enterprise |
| Classification in an institutional sector of economy | * All by CІSЕ (non-financial, financial and unidentified for brand new enterprises) |
| Size of enterprise | * Large-, medium- and small-sized enterprises with significant amounts of the quarterly reporting * Enterprises of all sizes for the annual reporting |
| Legal form of business | * All by legal forms of business |
| Economic activity (according to NACE) | * А – О |
| Geographic coverage | * All regions of Ukraine (27) |

This population has a significant amount. Only according to 2009 data, over 72 thousand enterprises had no-zero attributes which characterize investments. Overall, over 600 thousand Ukrainian enterprises can have potential investments.

Obviously, the total survey of such population of enterprises requires considerable financial, labour and time expenses and therefore is carried out only once a year. Quarterly surveys of enterprises in terms of capital investment are currently carried out based on the main array method, which provides for only survey of enterprises with most significant and impressive indicators. This population contains mostly large- and medium-sized enterprises as well as a minor portion of small-sized enterprises with considerable capital investments. Enumeration of capital investments of enterprises to economy on the whole is not performed. Thus, there is a need in calculation of capital investments for the population of all enterprises as well as in assessment of the obtained result quality.

This problem may be solved by means of using a sampling method of survey, which, given certain conditions, will give reliable results. Reliability of the sample survey results may be estimated quite accurately due to applying the sampling method theory, which is important to guarantee quality of statistics in terms of capital investments.

Organisation of any statistical observation may be conditionally divided into three phases: 1) planning of observation; 2) collection of data; 3) processing and analysis of results. A specific feature of the sample survey at the planning phase lies in the need to generate a list of observation units to be directly surveyed, i.e. to generate a sampling population.

**1.3 Information base**

Information for generation of reporting units population comes from:

● the Statistical Business Register;

● data of Form 2-investments (annual) covering the year preceding the reporting year;

● data of Form 2-investments (quarterly) covering four quarters of the year preceding the reporting year;

● Uniform Register of Managers and Recipient of Budget Funds.

Population of enterprises for capital investment survey is generated based on data of the Statistical Business Register with available economic indicators. Please see Annex A for the population structure.

In addition, a list of new enterprises with unidentified activity status established in the reporting year is obtained. It will be important to include this population into the surveys since survey practice has shown that a part of these enterprises have investments in the reporting year.

According to the Regulation on the Statistical Business Register and Generation of Sampling Frames for Populations of Statistical Observation Units by Enterprises’ Activity in the SBR, there are only three economic attributes of enterprises to be used for enterprise population analysis for the purpose of sample survey: 1) sales of products, works, services as of the beginning of the survey (UAH thousand); 2) enterprise average employment as of the beginning of the survey; 3) net profit (revenue) from sales of products (goods, works, services) for enterprise based on the annual reporting data (UAH thousand). Therefore data of the above-mentioned reporting forms are also used for sample survey planning.

**1.4 Basic terms and definitions**

*Active enterprise* – an enterprise involved in economic activity, namely, by having employees or selling products, works or services according to data of state statistical observations (including financial accounting) or administrative sources

*Sampling population (sample)* – a population of statistical units selected by specific rules from the general population for statistical observation.

*Sample observation* – a statistical observation that, rather than registering all elements of the statistical population, registers only their randomly selected part.

*Sampling method* – a system of rules for unit sampling and of ways of describing a surveyed unit population. Sampling method enables grossing up of conclusions obtained as a result of studying a part of population (sample) to the entire population (general).

*General population (sampling frame)* – a population of all active statistical units with given characteristics, which are intended for study and investigation during next year’s statistical observation.

*Sampling design (plan)* – an organisational logic model of a sampling population structure and principles of its generation. Quality of the sampling plan largely helps determination of representativity of a sampling population obtained following the plan’s rules.

Indicator *estimation variance* – characteristics of the estimate variation by replicates (samples repeated from the same population).

*Domain* – a subpopulation of the general population units, which requires estimation of some statistical indicators. Capital investment survey domains are populations of enterprises broken down by economic activities, regions, institutional sectors of economy and legal forms of business

*Bias* – discrepancy between an indicator average calculated on all replicates (repeated samples from the same population) and a real value of this indicator.

*Capital investments* – investments in purchase or production with a company’s own effort and for its own use of tangible and intangible assets, with the life period over one year.

*Employment* – an indicator determined with regard to average accountable number of the regular staff, average number of part-time employees and average number of civil contractors.

*Outliers* – observation units for whom the target attribute (amount of capital investments – in survey of capital investments) exceeds a threshold established for a certain population (stratum) by law or by expertise with due regard for the correlation of the target attribute with a stratification variable.

*Sample volume* – a number of observation units in a sampling population.

*Amount of sold products (works, services)*  – an indicator to be determined by a selling price of finished products (performed works, provided services) shipped outside the enterprise, with products (performed works, provided services) being specified in documents formalised as the ground for settlement with purchasers (clients) (including products (works, services) on contracts by exchange and barter) excluding indirect taxes (VAT, excise duty, etc.).

*Sampling unit* – a component (unit) of the general population (for capital investment survey) consecutively selected during generation of a sampling population. Some other observations may have a group of general population unit as a sampling unit. Size of a sampling unit cannot be smaller than an observation unit since otherwise may lead to systematic error of representativity

*Statistical observation unit* – a primary element of statistical observation unit, which bears attributes subject to registration during statistical observation.

*Attributes of statistical observation unit* – properties that reflect substance, character and specifics of a statistical observation unit

*Sampling (representativity) error –* an error that arises because a part rather than entire general population was surveyed. An error size depends on what general population elements will appear in the sample, i.e. on a kind and way of sampling as well as on the sample volume.

*Simple random sampling* – sampling of units to a sampling population during and prior to which every sampling frame unit has a determined, predesigned (the simplest – equal) probability to be included into the sample.

*Stratification* – a process of breaking the sampling frame into uniform groups (strata), which is used in generation of a sample from a heterogeneous population. Strata are created to make units inside each of them look alike as much as possible (have small or moderate variation inside the group).

*Stratified sample* – a sample that implies prior breaking down of the sampling frame into uniform groups (strata) and sampling of a certain number of units from each of them. A stratified sample is equivalent to a range of random samples from smaller populations (strata) provided units are randomly sampled in each of them. Units in each of the formed stratum are selected according to the simple random or systematic sampling.

*Precision* – shows a degree of approximation of estimate calculations to a precise or actual value.

*Quality* – a complex of features and characteristics of output statistical data, which enables meeting available or projected needs of consumers.

**2 CRITERIA FOR GENERATION OF THE GENERAL POPULATION FOR CAPITAL INVESTMENT SURVEY**

Quality of sample survey depends on a number of factors. Specifically, at the sample planning stage, the sample quality is affected by: topicality of the sampling frame, sample completeness, absence of double accounting, methodology of sample generation, etc. First of all, it will be necessary to clarify which population will be surveyed with the help of sampling method. Business statistics widely practice application of sampling method to surveying small-sized enterprise population whereas medium- and large-sized enterprises are coved by the total survey. Such approach is called combined since it covers total and sampling surveying. The use of such approach can be explained by the fact that availability of large-sized enterprises which on average have much higher indicators than small-sized enterprises, considerably increases heterogeneity of the general population, which, in the long run, negatively affects precision of this survey when applying sampling method to the entire enterprise population.

On the other hand, the foregoing raises an issue of feasibility of splitting the population by legal criterion of enterprise size. Within the framework of combine surveying, different countries use different criteria for breaking down the general population into subpopulations for total and sampling surveys. Employment (with different limit), enterprises’ turnover and other characteristics can be used as the criterion. Therefore approach to sampling frame generation requires substantiation in every specific survey.

Analysis makes it obvious that investment processes at enterprises from the financial an non-financial sectors of economy run differently. Because of this, analysis of these two surveys at the planing stage of the sample survey is made on each sector individually (Table 2.1).

Table 2.1

**Splitting enterprises by sectors of economy and available investments in 2009**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Indicator | Non-financial sector | | Financial sector | | No reference to sector |
| with investments | no investments | with investments | no investments |
| Number, units | 54398 | 301550 | 14624 | 289535 | 3781 |
| % to total number | 8,2 | 45,4 | 2,2 | 43,6 | 0,6 |

According to findings set down in Annex B, belonging to small-sized enterprises as recognised by law forms the best criterion for generation of a sample for sampling method survey. Thus, total survey covers medium- and large-sized enterprises as recognised by law (35139 units, or 5.3% of the population of all enterprises), sample survey embraces small-szed enterprises (624968 units, or 94.7%) (Table 2.2).

Table 2.2

**Breakdown of enterprises by sectors of economy and size in 2009**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Size of enterprise  (by law) | By number of enterprises | | | | By capital investment | | Share of enterprises with investments in the total number of enterprises of the group, % |
| total | | including those with investments | |
| units | % | units | % | UAH bn | % |
| ***Non-financial sector*** | 355948 | 53,9 | 54398 | 78,8 | 147,907 | 89,7 | 15,3 |
| 1 (small) | 332877 | 50,4 | 37279 | 54,0 | 29,009 | 17,6 | 11,2 |
| 2 (medium) | 21492 | 3,3 | 15641 | 22,7 | 47,783 | 29,0 | 72,8 |
| 3 (large) | 1579 | 0,2 | 1478 | 2,1 | 71,114 | 43,1 | 93,6 |
| ***Financial sector*** | 304159 | 46,1 | 14622 | 21,2 | 16,915 | 10,3 | 4,8 |
| 1 (small) | 292091 | 44,2 | 9404 | 13,6 | 5,851 | 3,5 | 3,2 |
| 2 (medium) | 12050 | 1,8 | 5203 | 7,5 | 10,984 | 6,7 | 43,2 |
| 3 (large) | 18 | 0,0 | 17 | 0,0 | 0,080 | 0,0 | 94,4 |
| **Total** | 660107 | 100,0 | 69020 | 100,0 | 164,822 | 100,0 | 10,5 |

It should be noted that the SBR has no attribute “size of enterprise” as recognised by law. Therefore this attribute is to be determined based on attributes “employment” and “gross profit” available in the SBR.

Additionally, results of survey of budget enterprises pushed us to a conclusion that they ought not to be detected into a separate subpopulation but, for estimation of their contribution into capital investments, it will be necessary to have an attribute of referring them to the budget area. Survey results will allow for a more precise estimation of budget enterprises’ indicators.

**3 STRATIFICATION OF THE GENERAL POPULATION**

The population of enterprises that can potentially absorb investments is extremely versatile. Capital investments may be absorbed by enterprises of all economic activities, institutional sectors of economy of any size, which can have various regional locations. That is why that population is extremely versatile by the size of an estimated attribute. Actually, the 2009 survey results established that coefficient of variation of capital investments comprised 14, which considerably exceeds its value for a homogenous population – 0.33. This case requires searching for approaches, techniques and methods that help to reduce the population heterogeneity. Stratification of population is one of these approaches.

The stratification procedure entails preliminary distribution of the sampling frame into more homogenous groups (strata), with further selection from each of them of a certain number of units for direct observation.

Building a stratified sample design provides for:

– stratification of the enterprise population;

– identification of main characteristics of the population;

– detection of outliers in strata;

– merging of small-sized strata.

The general population of enterprises consists of subpopulations of the financial and non-financial sectors (main subpopulation) and new enterprises with approaches to stratification to be outlined separately.

Stratification requires selection of indicators that most noticeably affect capital investments. The survey (Annex D) enables us to conclude that stratification of the main subpopulation of small-sized enterprises has to be carried out based on the following criteria:

1. main economic activity (NACE division);
2. belonging to the financial or non-financial sectors of economy;
3. average employment.

Fifty-eight groups were detected by economic activity and two groups, by institutional sectors. Given the fact that stratification by 27 regions in combination with economic activity and institutional sectors of economy gives a large number of small strata, which are, in their turn, not homogenous, regions were not used as stratification criterion.

Stratification groups by main economic activity can be found in Annex E and by average employment, in Table 3.1.

Table 3.1

**Criteria for generation of stratification groups by regular employment**

|  |  |
| --- | --- |
| Group code | Criterion of enterprise’ inclusion into group |
| 1 | Average employment = 0 persons |
| 2 | 1 person Average employment 2 persons |
| 3 | 3 persons Average employment 5 persons |
| 4 | 6 persons  Average employment 9 persons |
| 5 | 10 persons Average employment 19 persons |
| 6 | 20 persons  Average employment < 50 persons |

Every main subpopulation strata has code XXYZ, where XX – main economic activity (NACE division code), Y – belonging of enterprise to the financial or non-financial sector of economy (assumes value 1 for the non-financial sector enterprises, and value 2, for the financial sector enterprises), Z – group by average employment (assumes values from 1 to 6).

The new enterprise subpopulation can be stratified only by economic activity and belonging to the financial or non-financial sectors of economy. Each stratum of the new enterprise subpopulation has code XX, where XX – main economic activity (NACE division code).

***Identification of main characteristics of the population***

Following stratification of the general population, it will be necessary to identify its main characteristics, specifically, population volume, average (total) values of attributes, mean square deviation (variance), attribute coefficients of variation. These characteristics can be identified both for the small-sized enterprise population on the whole and by regions, economic activities, institutional sectors of economy and by strata. Identification of new characteristics does not include new enterprises since the relevant information is missing.

Estimation of small-sized enterprise homogeneity by the value “capital investment amount” makes use of coefficients of variation to be found with the formula:

,

where  – average value of capital investments,  – mean square deviation of this attribute.

Annex F data represent that coefficients of variation of capital investments have large values, which proves considerable heterogeneity of the population of small-sized enterprises by this attribute even after the stratification procedure.

When it is necessary to get from a survey reliable indicators on the population of all enterprises rather than on small-sized enterprises separately, precision of estimates for those economic activities, regions and institutional sectors of economy where small-sized enterprises have an insignificant share on target attribute, can be rather high. Domains with considerable share of small-sized enterprises require searching for approaches that allow for reduction of the population heterogeneity. One of these approaches may be use of the procedure of detection and inclusion of outliers. Shares of enterprises broken down by economic activities, regions and institutional sectors are given in Annex G.

**4 DETECTION OF OUTLIERS**

Detection of outliers and their placement into a separate subpopulation for further survey on a total basis has a real impact upon the sample error size reduction. Outliers have to be detected twice: at first – right after stratification, at second – after strata merging.

For outlier detection, every stratum arranges enterprises in descending order based on reduction of capital investments, with further estimation of their values by mathematical, graphical (box-plots) and by expert methods.

*Mathematical method (three sigma method):*

Outliers are enterprises for which values of capital investments fall outside the interval limits:

,

where – value of capital investments for the *ith* unit in stratum *h*;  – average value of capital investments in stratum *h*; – mean square deviation of capital investments in stratum *h*.

*Graphical method* is used as an auxiliary one during expert estimation of values of target attribute (capital investments). A “box-plot” diagram should be built individually for every stratum. It depicts all “outlying” values of the target attribute.

Outliers have to be grouped up into a separate subpopulation and surveyed on a total basis (i.e. with sample inclusion probability equalling one). Strata with less than 10 enterprises (small strata) are also removed to this subpopulation.

At first detection of outliers applies mathematical method, which is followed by generation of an aggregated file with the above-mentioned statistical characteristics for verification of coefficient of variation in the target stratum. With coefficient variation exceeding 2 in the stratum, outlier detection by expertise and graphical method should continue.

However, we should keep the number of outliers at a not very high level. Expert method has established that the total number of enterprises surveyed totally, should not exceed 2%.

Please see Annex I for the results of outlier detection based on the 2009 general population.

**5 CALCULATION OF VOLUME OF THE SAMPLE**

Calculation of the total population volume has much significance at the sample survey and generation stage, which will ensure reliable results of this survey. In this case we should make a compromise between reliability of the survey results and cost of the survey.

**5.1 Calculation of the general volume of the sample**

Identifying volume of the sample population, we based ourselves on the assumption that the maximum amount of questionnaires for surveying enterprises in terms of capital investments should not exceed 100 copies. A certain part of questionnaires is used for medium- and large-sized enterprises. Therefore the maximum for general volume of the sample comprises 100000, which is the number of medium- and large-sized enterprises.

General volume of the sample should be distributed as follows:

● 10% for volume of the sample for the new enterprise subpopulation;

● share of sampling enterprises of the main subpopulation should be determined as 100000 (number of enterprises surveyed with probability 1 + volume of sample for the new enterprise subpopulation).

**5.2 Calculation of volume of the sample by strata**

Volume of the sample for the main subpopulation of enterprises is divided into two parts: 90% to be allocated by strata based on determined allocation, 10% as a reserve. Reserve is a number of sample units that are used for adjustment of the sample strata. The specified procedure is necessary for arranging a number of enterprises in the sample strata, which is basically related to high share of non-response. This may be significant for a small stratum when grossing up its data to the general population.

The following sampling population strata are refilled from the reserve by the sample design:

– with a number of enterprises in a sample, which does not exceed 10 (added up to 10 units);

– that correspond to the general population strata with high coefficient of variation (as compared with other strata);

– which have high share of non-response in the previous survey.

The principle of sample volume distribution by strata depends on a sampling type used in generation of the sampling population. The most optimal for obtaining reliable results at the national level is Neyman allocation where the sample volume in a stratum should be calculated using the formula:

,

where  – sample volume from stratum *h*;  – number of units in stratum *h*;  – mean square deviation of capital investments in stratum *h*.

In some cases the formula gives . Then the sample volume in stratum  amounts to the population volume in stratum : . Volume of the sample that is released in these cases should be summed up to volume of the sample from strata where , after which the procedure of calculating volume of the sample by strata based on Neyman optimum allocation is repeated.

The use of Neyman optimum allocation is followed by manual distribution of reserve. In calculation of the sample volume, rounding always goes upwards.

**6 PRINCIPLES OF GENERATION OF THE LIST OF UNITS FOR SURVEY**

Sampling population is generated individually from every above-mentioned component of the sampling frame. In the main subpopulation the sample is generated individually from every stratum. .

Generation of the sampling frame begins with generation of a random value uniformly allocated by for every element in stratum. can be found with the help of the random number generator and assumes the value from 0 to 1.

The next step is arrangement of stratum elements based on increment of a random value relevantly generated.

The sample covers first *nh* elements in the arranged stratum, where *nh.* is sample volume in stratum *h*.

Outliers and small-stratum enterprises are surveyed on a total basis, i.e. are included to the sample with probability 1.

General list of units to be surveyed consists of lists of units sampled from the main subpopulation and the subpopulation of new enterprises, list of outliers, small-strata enterprises, enterprises of institutional sectors of economy and economic activities surveyed on a total basis, and large and medium enterprises.

**7 CALCULATION OF BASE WEIGHTS**

For every unit of the sampling population, it will be necessary to calculate its base weights. Base weight of totally surveyed enterprises equals one (large-, medium-sized enterprises, outliers, slam-strata enterprises, enterprises detected by expertise, enterprises with economic activities and institutional sectors of economy surveyed totally).

For all other enterprises base weights are calculated with the formula:



where *Nh. –* number of units in stratum *h* of the sampling population without units surveyed with probability 1 (outliers, enterprises detected by expertise, enterprises referring to institutional sectors of economy), *nh. –* sample volume in stratum *h*.

**8 ESTIMATION OF THE SAMPLE DESIGN QUALITY**

Estimation of the sample design quality involves the use of simulation modelling, namely, Monte Carlo method, which implies simulation of a great number of independent samples of the same design (replicates) from the general population. This is followed by analysis of generalising indicators calculated based on replicate population that serves a basis for drawing a conclusion on reliability of survey indicator estimates.

To assess reliability of estimation in domain *d*, let us make simulations using Monte Carlo method. We will measure the bias and estimate precision with the following indicators:

* relative bias (ARB):

;

* relative root of mean square error (RRMSE):

.

For estimating main indicators, two valuation functions were used in capital investment survey: Horwitz – Thompson (HT) and regression (GREG-P).

Horwitz – Thompson estimator for stratum in domain *d*:



where  – sample from stratum *h*, which belongs to domain *d*;  – weight of the *іth* unit in the sample.

Regression (GREG) estimator for stratum belonging to domain *d*:

,

which is based on the model , ,,

where – volume of the sample from stratum *h*;  – number of stratum units *h;*  – value of capital investments;  – additional variable well correlated with the target attribute.

The estimator of the total volume for domain *d* equals the sum of total value estimators for each stratum belonging to domain *d*:

.

Precision levels for the obtained estimators are given in Table 8.1.

Table 8.1

**Estimation reliability levels**

|  |  |  |
| --- | --- | --- |
| Reliability category | RRMSE value, % | Precision level |
| А | no more than 5 | high |
| B | from 5.1 to 10 | sufficient |
| C | from 10.1 to 15 | satisfactory |
| D | from 15.1 to 25 | low (suitable for qualitative analysis only) |
| E | over 25 | unsatisfactory (little suitable for analysis) |

Results of the simulation modelling based on the 2009 data (Annex К), enable us to conclude that regression estimator gives better results than ordinary Horwitz – Thompson estimator. Generally, the survey results show rather high precision of the obtained estimators.

**9 GENEREAL SCHEME FOR THE SAMPLING FRAME GENERATION**

Fig. 9.1 presents the general scheme for the sampling frame generation for capital investments survey.

***CAPITAL INVESTMENT SURVEY***

*List of reporting units*

F. No.2-investment (annual)

***Total survey population***

1. Large and medium enterprises recognised as such by law

3. Small-strata enterprises.

**Statistical Business Register (as of 15.11)**

List of new units

F. No.2-investment (annual)

***Sampling frame***

1. Small enterprises recognised as such by law excluding outliers and small-strata enterprises;

2. New enterprises.

**Sampling criteria for reporting units**

- business entities-economic organisations who have the legal entity status and activity status based on the Statistical Business Register;

- NACE sections А–O are the main economic activity

List of units of the non-financial sector of economy

List of units of the financial sector of economy

Large and medium enterprises

Small enterprises

**Stratification**

Stratification criteria:

1) main economic activity (NACE division);

2) belonging to the financial or non-financial sector of economy;

3) average employment.

Stratification criteria:

1. main economic activity (NACE division);
2. belonging to the financial or non-financial sector of economy.

Small strata

**Detection of outliers**

Large strata

Outliers

Main subpopulation

**Fig. 9.1 Diagram of generation of the sampling population for capital investment survey**

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**Annex** **А**

Table А.1

**Active enterprise population structure generated based on the SBR**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Type** | **Digits** | **Name of field** |
| KD | N | 8 | Identification code USREOU |
| NU | C | 250 | Name |
| TE | N | 10 | Code of territory COATSU |
| AD | C | 200 | Location (registered address) |
| OT | N | 11 | Telephone |
| PF\_R | N | 3 | Code of legal form of business COLFB (with reference to its revised value) |
| KICE | N | 2 | Code of institutional sector of economy CISE (local code used in the SBR) |
| VDF | C | 7 | Code of the main economic activity NACE (MEA) at the beginning of the survey |
| VDF\_OZ | N | 2 | Attribute of determining MEA at the beginning of the survey (according to DOVD guide) |
| VDF\_RIK | N | 4 | Year of determining MEA as of the beginning of the survey |
| REALV | N | 14,1 | Amount of sold products, works, services as of the beginning of the survey (UAH thousand) |
| SPCHV | N | 8 | Average employment for enterprise as of the beginning of the survey (based on the 2009 data) |
| SPCHV\_D | C | 3 | Source for entering data on average employment for enterprise as of the beginning of the survey (according to DZD reference) |
| SPCHV\_RS | N | 3 | Statistics branch code which was used to enter data on average employment for enterprise as of the beginning of the survey (according to DORS reference) |
| SPCHVRIK | N | 4 | Reporting year for which data on average employment for enterprise were entered as of the beginning of the survey |
| DOXID\_CH | N | 12,1 | Net profit (earnings) from sold products (goods, works services) for enterprise based on annual reporting data (UAH thousand) |
| DOXCH\_RS | N | 3 | Statistics branch code from which data were entered on net profit (earnings) from sold products (goods, works, services) for enterprise based on annual reporting data |
| OZNOV | N | 1 | Attribute of enterprise formed in the reporting year |
| ZROZ | N | 1 | Attribute of enterprise size (as recognised by law): to be determined for non-financial corporations (local CISE codes – 11, 12, 13) according to DRP reference (assumes values: 1 – small, 2 – medium, 3 – large) |
| OZST | C | 1 | State of enterprise as defined by statistical reporting as of the beginning of the survey (according to DSO reference) |

Table А.2

**Attributes used for analysis based on Forms No.** **1-enterprise and**

**No.** **2-investments**

|  |  |  |
| --- | --- | --- |
| **No.** | **Attribute** | **Field** |
| 1 | Identification code of enterprise (USREOU) | okpo |
| 2 | NACE by MEA | kvedo |
| 3 | NACE by registration | kvedr |
| 4 | Code CISE | kice |
| 5 | Code COLFB | kopfg |
| 6 | Territory of registration (COATSU) | tz |
| 7 | Territory of registration (region) | rz |
| 8 | Capital investments, total, UAH thousand | g26 |
| 9 | V1 – Investments in land, UAH thousand | g27 |
| 10 | V2 – Investments in existing buildings and structures, UAH thousand | g28 |
| 11 | V3 – Investments in existing buildings, UAH thousand | g29 |
| 12 | V4 – Investments in non-residential buildings, UAH thousand | g30 |
| 13 | V5 – Investments in structures, UAH thousand | g31 |
| 14 | V6 +V7 – Investments in machinery, plant and equipment, both domestic and imported, UAH thousand | g32 |
| 15 | V8 +V9 – Electrical and electronic equipment, both domestic and imported | g33 |
| 16 | V10+V11 – Investments in transport vehicles, both domestic and imported | g34 |
| 17 | V12 – Investments in long-term biological asset and melioration of land, UAH thousand | g35 |
| 18 | V13 – Investments in other tangible assets, UAH thousand | g36 |
| 19 | V14 – Investments in software and databases, UAH thousand | g37 |
| 20 | V15 – Investments in rights to use natural resources and property, patents, licenses, trademarks, associated rights and other intangible assets, UAH thousand | g38 |

Annex B

**Identification of optimal criteria for the sample frame generation**

***Non-financial sector of economy***

Breakdown of enterprises of the non-financial sector of economy by various criteria of their size (Table B.1) provided in Table B.2.

Table B.1

**Criteria of grouping up the population by size of enterprises**

|  |  |
| --- | --- |
| Size of enterprise | Group limits |
| ***By law*** | |
| 1 (small) | regular employment ≤ 50 and turnover (gross profit) ≤ UAH 70 million |
| 2 (medium) | other |
| 3 (large) | regular employment > 250 and turnover (gross profit) > UAH 100 million |
| ***By gross profit*** | |
| 1 (small) | gross profit≤ UAH 70 million |
| 2 (medium) | UAH 70 million < gross profit≤ UAH 100 million |
| 3 (large) | gross profit> UAH 100 million |
| ***By regular employment*** | |
| 1 (small) | regular employment ≤ 50 |
| 2 (medium) | 50 < regular employment ≤ 250 |
| 3 (large) | regular employment > 250 |

Table B.2

**Breakdown of enterprises of the non-financial sector of economy by size**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Size of enterprise | Number of enterprises | | | | Capital investments | | Share of enterprises with investments in the total number of enterprises, % |
| total | | including with investments | |
| units | % | units | % | UAH billion | % |
| ***By law*** | | | | | | | |
| 1 (small) | 332877 | 93,5 | 37279 | 68,5 | 29,009 | 19,6 | 11,2 |
| 2 (medium) | 21492 | 6,0 | 15641 | 28,8 | 47,783 | 32,3 | 72,8 |
| 3 (large) | 1579 | 0,4 | 1478 | 2,7 | 71,114 | 48,1 | 93,6 |
| ***By net profit*** | | | | | | | |
| 1 (small) | 351651 | 98,8 | 51316 | 94,3 | 64,457 | 43,6 | 14,6 |
| 2 (medium) | 1252 | 0,4 | 842 | 1,6 | 5,431 | 3,7 | 67,3 |
| 3 (large) | 3045 | 0,9 | 2240 | 4,1 | 78,018 | 52,8 | 73,6 |
| ***By regular employment*** | | | | | | | |
| 1 (small) | 334571 | 94,0 | 37887 | 69,7 | 33,199 | 22,5 | 11,3 |
| 2 (medium) | 17585 | 4,9 | 13115 | 24,1 | 33,294 | 22,5 | 74,6 |
| 3 (large) | 3792 | 1,1 | 3396 | 6,2 | 81,414 | 55,0 | 89,6 |
| **Total by each criterion** | 355948 | 100,0 | 54398 | 100,0 | 147,907 | 100,0 | 15,3 |

Fisher test points to the fact that the size of enterprise identified both by law, net profit and employment significantly affects capital investment amount. Estimated values of Fisher F-criterion considerably exceed critical values by all criteria of size, which occurs both on the population of enterprises of the non-financial sector of economy on the whole and by economic activities. Actual significance points are close to zero. (Table B.3).

Table B.3

**Estimated values of Fisher F-criterion and the significance levels for various types of groupings**

|  |  |  |
| --- | --- | --- |
| Grouping type | Estmated values of Fisher F-criterion | Significance level |
| By size of enterprise (by law) | 10423,9 | 0,000 |
| By net profit | 6185,2 | 0,000 |
| By regular employment | 5474,0 | 0,000 |

Since such indicators of observation as size of enterprise by law and regular employment demonstrate rather stable stability in development, analysis of crisscross breakdown of enterprises by these two criteria was performed in greater detail (Table B.4). It was established that all enterprises recognised by law as small-sized, are obviously small-sized by employment. The number of such enterprises accounts for 93.5% of their total number, and their investments comprise less than 20%. Similarly, all large-sized enterprises as recognised by law are classified as such by employment. The number of such enterprises accounts only for 0.4%, while their investments make 48.1%. The group of medium-sized enterprises by law is divided into three groups by regular employment, which are largely represented by enterprises recognised as medium-sized by the both criteria.

Table B.4

**Breakdown of enterprises broken down by groups by size of enterprise (by law) and regular employment for the non-financial sector of economy**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group | | Number of enterprises | | | | Capital investments | | Share of enterprises with investments in the total number of enterprises, % |
| total | | of which with investments | |
| by size of enterprise | by regular employment | units | % | units | % | UAH billion | % |
| 1 (small) | 1 (small) | 332877 | 93,5 | 37279 | 68,5 | 29,009 | 19,6 | 11,2 |
| 2 (medium) | 1 (small) | 1694 | 0,5 | 608 | 1,1 | 4,189 | 2,8 | 35,9 |
| 2 (medium) | 2 (medium) | 17585 | 4,9 | 13115 | 24,1 | 33,294 | 22,5 | 74,6 |
| 2 (medium) | 3 (large) | 2213 | 0,6 | 1918 | 3,5 | 10,299 | 7,0 | 86,7 |
| 3 (large) | 3 (large) | 1579 | 0,4 | 1478 | 2,7 | 71,114 | 48,1 | 93,6 |
| Total | | 355948 | 100,0 | 54398 | 100,0 | 147,905 | 100,0 | 15,3 |

All localisation coefficients were analysed by crisscross breakdown, which showed that high concentration of capital investments may be observed by all detected groups, excluding recognised as small-sized both by law and by regular employment (Table B.5). This proves the necessity to make total observation of medium- and large-sized enterprises and sample observation for small-sized enterprises.

The number of medium- and large-sized enterprises recognised as such by law accounts for 21377 units for the non-financial sector of economy, which is an acceptable amount with regard to supply of financial and labour resources.

Table B.5

**Localisation coefficients broken down by groups based on size of enterprise (by law) and regular employment for the non-financial sector of economy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Group | | Localisation coefficients of | | |
| by size of enterprise | by regular employment | enterprises with investments | investments by total number of enterprises | investments by number of enterprises that have them |
| 1 (small) | 1 (small) | 0,7 | 0,2 | 0,3 |
| 2 (medium) | 1 (small) | 2,2 | 5,6 | 2,5 |
| 2 (medium) | 2 (medium) | 4,9 | 4,6 | 0,9 |
| 2 (medium) | 3 (large) | 5,9 | 11,7 | 2,0 |
| 3 (large) | 3 (large) | 6,8 | 120,3 | 17,8 |

***Financial sector of economy***

Breakdown of enterprises of the financial sector of economy by different criteria of the size of enterprise is presented in Table B.6.

Table B.6

**Breakdown of enterprises of the financial sector of economy by size**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Size of enterprise | Number of enterprises | | | | Capital investments | | Share of enterprises with investments in the total number of enterprises, % |
| total | | of which with investments | |
| units | % | units | % | UAH billion | % |
| ***By law*** | | | | | | | |
| 1 (small) | 292091 | 96,03 | 9404 | 64,31 | 5,851 | 34,59 | 3,22 |
| 2 (medium) | 12050 | 3,96 | 5203 | 35,58 | 10,984 | 64,94 | 43,18 |
| 3 (large) | 18 | 0,01 | 17 | 0,12 | 0,080 | 0,47 | 94,44 |
| ***By net profit*** | | | | | | | |
| 1 (small) | 303996 | 99,9 | 14571 | 99,9 | 16,716 | 98,8 | 4,8 |
| 2 (medium) | 27 | 0,0 | 7 | 0,0 | 0,013 | 0,1 | 25,9 |
| 3 (large) | 136 | 0,0 | 44 | 0,0 | 0,185 | 1,1 | 32,4 |
| ***By regular employment*** | | | | | | | |
| 1 (small) | 292217 | 96,1 | 9426 | 96,1 | 5,872 | 34,7 | 3,2 |
| 2 (medium) | 9575 | 3,2 | 3915 | 3,2 | 6,105 | 36,1 | 40,9 |
| 3 (large) | 2367 | 0,8 | 1283 | 0,8 | 4,937 | 29,2 | 54,2 |
| **Total by each criterion** | 304159 | 100,0 | 14622 | 100,0 | 16,915 | 100,0 | 4,8 |

Fisher test points to the fact that the size of enterprise identified both by law, net profit and regular employment significantly affects capital investment amount. Estimated values of Fisher F-criterion considerably exceed critical values by all criteria of size, which occurs both on the population of enterprises of the non-financial sector of economy on the whole and by economic activities. Actual significance points are close to zero (Table B.7).

Table B.7

**Estimated values of Fisher F-criterion and** **significance levels for various types of groupings**

|  |  |  |
| --- | --- | --- |
| Type of grouping | Estimated values of Fisher F-criterion | Actual significance level |
| By size of enterprise (legal criterion) | 19,6 | 0,000 |
| By net profit | 12,6 | 0,000 |
| By regular employment | 708,8 | 0,000 |

The number of medium- and large-size enterprises comprises 12068 by law for the financial sector of economy, which is also an acceptable amount with regard to provision with financial and labour resources.

Table B.8

**Breakdown of enterprises by groups and size of enterprise (by law) and by regular employment for the financial sector of economy**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group by size of enterprise | | Number of enterprises | | | | Capital investments | | Share of enterprises with investments in the total number of enterprises, % |
| total | | including those with investments | |
| by law | by regular employment | units | % | units | % | UAH billion | % |
| 1 (small) | 1 (small) | 292217 | 96,0 | 9404 | 64,3 | 5,851 | 34,6 | 3,2 |
| 2 (medium) | 1 (small) | 126 | 0,0 | 23 | 0,2 | 0,021 | 0,1 | 18,3 |
| 2 (medium) | 2 (medium) | 9575 | 3,2 | 3914 | 26,8 | 6,105 | 36,1 | 40,9 |
| 2 (medium) | 3 (large) | 2349 | 0,8 | 1266 | 8,7 | 4,857 | 28,7 | 53,9 |
| 3 (large) | 3 (large) | 18 | 0,0 | 17 | 0,1 | 0,080 | 0,5 | 94,4 |
| Total | | 304159 | 100,0 | 14624 | 100,0 | 16,915 | 100,0 | 4,8 |

Table B.9

**Localisation coefficients broken down by groups by groups by size of enterprise (by law) and regular employment for the financial sector of economy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Group by size of enterprise | | Localisation coefficients of | | |
| by law | by regular employment | enterprises with investments | investments by the total number of enterprises | investments by the number of enterprises with them |
| 1 (small) | 1 (small) | 0,7 | 0,4 | 0,5 |
| 2 (medium) | 1 (small) | 3,8 | 3,0 | 0,8 |
| 2 (medium) | 2 (medium) | 8,5 | 11,5 | 1,3 |
| 2 (medium) | 3 (large) | 11,2 | 37,2 | 3,3 |
| 3 (large) | 3 (large) | 19,6 | 79,9 | 4,1 |

***Population of enterprises with the unidentified sector of economy***

Enterprises with the unidentified sector of economy have a tendency toward dependence of capital investment amount on regular employment value (estimated value of Fisher criterion amount to 65.2).

Table B.10

**Breakdown of enterprises by groups based on regular employment**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Size of enterprise based on regular employment | Number of enterprises | | | | Capital investment amount | | Average value of capital investments, UAH thousand |
| total | | including those with investments | |
| units | % | units | % | UAH billion | % |
| 1 (small) | 1715 | 45,4 | 1715 | 45,4 | 3,951 | 19,1 | 2,304 |
| 2 (medium) | 1456 | 38,5 | 1456 | 38,5 | 2,531 | 12,3 | 1,738 |
| 3 (large) | 610 | 16,1 | 610 | 16,1 | 14,176 | 68,6 | 23,241 |
| Total | 3781 | 100,0 | 3781 | 100,0 | 20,658 | 100,0 | Х |

Annex C

**Analysis of budget institutions**

***Non-financial sector of economy***

Among 355948 enterprises of the non-financial sector, 678 are budget institutions, which accounts for less than 0.2%. The survey results are presented in Tables C.1 – C.8.

Table C.1

**Breakdown of non-financial budget institutions by size**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Size of institution | Number of enterprises | | | Share of budget institutions | |
| total, units | including budget insitutions, units | | by size, % | in the total number, % |
| ***By law*** | | | | | |
| 1 (small) | 332877 | | 376 | 55,5 | 0,1 |
| 2 (medium | 21492 | | 301 | 44,4 | 1,4 |
| 3 (large) | 1579 | | 1 | 0,1 | 0,1 |
| ***By net profit*** | | | | | |
| 1 (small) | 351651 | | 677 | 99,9 | 0,2 |
| 2 (medium | 1252 | | 0 | 0,0 | 0,0 |
| 3 (large) | 3045 | | 1 | 0,2 | 0,0 |
| ***By regular employment*** | | | | | |
| 1 (small) | 334571 | | 376 | 55,5 | 0,1 |
| 2 (medium | 17485 | | 235 | 34,7 | 1,3 |
| 3 (large) | 3792 | | 67 | 9,9 | 1,8 |
| **Total by each criterion** | 355948 | | 678 | 100,0 | 0,2 |

Table C.2

**Breakdown of non-financial budget institutions with investments by size**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Size of institution | Number of enterprises with investments | | | Share of budget institutions by capital investment amount | | | |
| total, units | including budget insitutions, units | | by size, % | | in the total number, % | |
| ***By law*** | | | | | | | | |
| 1 (small) | 37273 | | 98 | | 43,4 | | 0,3 | |
| 2 (medium | 15641 | | 127 | | 56,2 | | 0,8 | |
| 3 (large) | 1478 | | 1 | | 0,4 | | 0,1 | |
| ***By net profit*** | | | | | | | | |
| 1 (small) | 51310 | | 225 | | 99,6 | | 0,4 | |
| 2 (medium | 842 | | 0 | | 0,0 | | 0,0 | |
| 3 (large) | 2240 | | 1 | | 0,4 | | 0,0 | |
| ***By regular employment*** | | | | | | | | |
| 1 (small) | 37881 | | 98 | | 43,4 | | 0,3 | |
| 2 (medium | 13115 | | 95 | | 42,0 | | 0,7 | |
| 3 (large) | 3396 | | 33 | | 14,6 | | 1,0 | |
| **Total by each criterion** | 54392 | | 226 | | 100,0 | | 0,4 | |

Table C.3

**Breakdown of budget institutions in the non-financial enterprise population by economic activities**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Number of enterprises | | Share of budget institutions in the total number, % |  | NACE code | Number of enterprises | | Share of budget institutions in the total number, % |
| total, units | including budget institutions, units |  | total, units | including budget institutions, units |
| 1 | 38531 | 197 | 0,5 |  | 36 | 2347 | 0 | 0,0 |
| 2 | 878 | 15 | 1,7 |  | 37 | 912 | 0 | 0,0 |
| 5 | 863 | 7 | 0,8 |  | 40 | 1218 | 1 | 0,1 |
| 10 | 359 | 0 | 0,0 |  | 41 | 1518 | 8 | 0,5 |
| 11 | 140 | 0 | 0,0 |  | 45 | 35551 | 23 | 0,1 |
| 12 | 1 | 0 | 0,0 |  | 50 | 8894 | 3 | 0,0 |
| 13 | 35 | 0 | 0,0 |  | 51 | 77955 | 3 | 0,0 |
| 14 | 1183 | 0 | 0,0 |  | 52 | 21599 | 4 | 0,0 |
| 15 | 6514 | 0 | 0,0 |  | 55 | 9704 | 37 | 0,4 |
| 16 | 13 | 0 | 0,0 |  | 60 | 6642 | 25 | 0,4 |
| 17 | 794 | 0 | 0,0 |  | 61 | 170 | 0 | 0,0 |
| 18 | 2126 | 0 | 0,0 |  | 62 | 139 | 0 | 0,0 |
| 19 | 454 | 0 | 0,0 |  | 63 | 9485 | 17 | 0,2 |
| 20 | 3183 | 4 | 0,1 |  | 64 | 2018 | 40 | 2,0 |
| 21 | 564 | 0 | 0,0 |  | 65 | 4 | 0 | 0,0 |
| 22 | 6239 | 13 | 0,2 |  | 67 | 3 | 0 | 0,0 |
| 23 | 174 | 0 | 0,0 |  | 70 | 29533 | 14 | 0,1 |
| 24 | 1621 | 2 | 0,1 |  | 71 | 2257 | 1 | 0,0 |
| 25 | 2248 | 0 | 0,0 |  | 72 | 5899 | 20 | 0,3 |
| 26 | 3386 | 0 | 0,0 |  | 73 | 3811 | 21 | 0,6 |
| 27 | 508 | 0 | 0,0 |  | 74 | 35694 | 121 | 0,3 |
| 28 | 3448 | 0 | 0,0 |  | 75 | 249 | 8 | 3,2 |
| 29 | 4723 | 0 | 0,0 |  | 80 | 2203 | 5 | 0,2 |
| 30 | 400 | 0 | 0,0 |  | 85 | 4726 | 37 | 0,8 |
| 31 | 2033 | 0 | 0,0 |  | 90 | 1588 | 3 | 0,2 |
| 32 | 609 | 2 | 0,3 |  | 91 | 139 | 0 | 0,0 |
| 33 | 1396 | 2 | 0,1 |  | 92 | 4888 | 38 | 0,8 |
| 34 | 302 | 0 | 0,0 |  | 93 | 3317 | 7 | 0,2 |
| 35 | 760 | 0 | 0,0 |  | Total | 355948 | 678 | 0,2 |

Table C.4

**Breakdown of budget institutions in the non-financial enterprise population by institutional sectors of economy**

|  |  |  |  |
| --- | --- | --- | --- |
| CISE code | Number of enterprises | | Share of budget institutions in the total number, % |
| total, units | including budget institutions, units |
| 0 | 561 | 0 | 0,0 |
| 11 | 13242 | 645 | 4,9 |
| 12 | 332004 | 8 | 0,0 |
| 13 | 9969 | 2 | 0,0 |
| 23 | 1 | 0 | 0,0 |
| 24 | 2 | 0 | 0,0 |
| 27 | 3 | 0 | 0,0 |
| 28 | 22 | 0 | 0,0 |
| 29 | 3 | 0 | 0,0 |
| 32 | 10 | 0 | 0,0 |
| 33 | 3 | 0 | 0,0 |
| 37 | 1 | 0 | 0,0 |
| 41 | 27 | 12 | 44,4 |
| 42 | 18 | 11 | 61,1 |
| 60 | 82 | 0 | 0,0 |
| Total | 355948 | 678 | 0,2 |

Table C.5

**Breakdown of budget institutions in the non-financial enterprise population by regions**

|  |  |  |  |
| --- | --- | --- | --- |
| COATSU code | Number of enterprises | | Share of budget institutions in the total number, % |
| total, units | including budget institutions, units |
| 1 | 13766 | 37 | 0,3 |
| 5 | 7577 | 16 | 0,2 |
| 7 | 4868 | 17 | 0,4 |
| 12 | 25710 | 40 | 0,2 |
| 14 | 26615 | 48 | 0,2 |
| 18 | 6134 | 30 | 0,5 |
| 21 | 4968 | 25 | 0,5 |
| 23 | 13566 | 28 | 0,2 |
| 26 | 7527 | 17 | 0,2 |
| 32 | 14606 | 21 | 0,1 |
| 35 | 6135 | 16 | 0,3 |
| 44 | 10382 | 21 | 0,2 |
| 46 | 20139 | 31 | 0,2 |
| 48 | 9332 | 20 | 0,2 |
| 51 | 22806 | 31 | 0,1 |
| 53 | 8933 | 32 | 0,4 |
| 56 | 4923 | 14 | 0,3 |
| 59 | 5087 | 15 | 0,3 |
| 61 | 4519 | 15 | 0,3 |
| 63 | 24644 | 26 | 0,1 |
| 65 | 6311 | 28 | 0,4 |
| 68 | 6034 | 22 | 0,4 |
| 71 | 6946 | 21 | 0,3 |
| 73 | 4946 | 18 | 0,4 |
| 74 | 5127 | 21 | 0,4 |
| 80 | 80548 | 59 | 0,1 |
| 85 | 3799 | 9 | 0,2 |
| Total | 355948 | 678 | 0,2 |

Table C.6

**Main generalising indicators of non-financial budget institutions in terms of capital investments by economic activities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NACE code | Number of budget institutions, units. | Average investments,  UAH thousand | Total investment amount | | Share of budget institutions by capital investment amount, % |
| overall, UAH thousand | including budget institutions, UAH thousand |
| 1 | 197 | 594,24 | 11411077 | 117066 | 1,0 |
| 2 | 15 | 62,00 | 139373 | 930 | 0,7 |
| 5 | 7 | 2,71 | 191697 | 19 | 0,0 |
| 10 | 0 | – | 3754610 | 0 | 0,0 |
| 11 | 0 | – | 1448233 | 0 | 0,0 |
| 12 | 0 | – | 306718 | 0 | 0,0 |
| 13 | 0 | – | 2835752 | 0 | 0,0 |
| 14 | 0 | – | 970127 | 0 | 0,0 |
| 15 | 0 | – | 9470173 | 0 | 0,0 |
| 16 | 0 | – | 844982 | 0 | 0,0 |
| 17 | 0 | – | 204660 | 0 | 0,0 |
| 18 | 0 | – | 158022 | 0 | 0,0 |
| 19 | 0 | – | 189634 | 0 | 0,0 |
| 20 | 4 | – | 1105158 | 0 | 0,0 |
| 21 | 0 | – | 831554 | 0 | 0,0 |
| 22 | 13 | 2,31 | 480132 | 30 | 0,0 |
| 23 | 0 | – | 950003 | 0 | 0,0 |
| 24 | 2 | 509,00 | 3278933 | 1018 | 0,0 |
| 25 | 0 | – | 874322 | 0 | 0,0 |
| 26 | 0 | – | 4622207 | 0 | 0,0 |
| 27 | 0 | – | 6138839 | 0 | 0,0 |
| 28 | 0 | – | 1110381 | 0 | 0,0 |
| 29 | 0 | – | 2128649 | 0 | 0,0 |
| 30 | 0 | – | 29416 | 0 | 0,0 |
| 31 | 0 | – | 757708 | 0 | 0,0 |
| 32 | 2 | – | 241375 | 0 | 0,0 |
| 33 | 2 | 1017,50 | 269797 | 2035 | 0,8 |
| 34 | 0 | – | 240346 | 0 | 0,0 |
| 35 | 0 | – | 1167426 | 0 | 0,0 |
| 36 | 0 | – | 303045 | 0 | 0,0 |
| 37 | 0 | – | 90400 | 0 | 0,0 |
| 40 | 1 | – | 5067494 | 0 | 0,0 |
| 41 | 8 | 46,50 | 507699 | 372 | 0,1 |
| 45 | 23 | 139,04 | 10248253 | 3198 | 0,0 |
| 50 | 3 | – | 2608274 | 0 | 0,0 |
| 51 | 3 | – | 13592707 | 0 | 0,0 |
| 52 | 4 | 212,00 | 4320218 | 848 | 0,0 |
| 55 | 37 | 349,62 | 1276432 | 12936 | 1,0 |
| 60 | 25 | 32,32 | 3559116 | 808 | 0,0 |
| 61 | 0 | – | 50343 | 0 | 0,0 |
| 62 | 0 | – | 495429 | 0 | 0,0 |
| 63 | 17 | 17,94 | 9176872 | 305 | 0,0 |
| 64 | 40 | 5,80 | 10829471 | 232 | 0,0 |
| 65 | 0 | – | 0 | 0 | – |
| 67 | 0 | – | 0 | 0 | – |
| 70 | 14 | 0,43 | 19062288 | 6 | 0,0 |
| 71 | 1 | 9,00 | 1690358 | 9 | 0,0 |
| 72 | 20 | 25,40 | 225450 | 508 | 0,2 |
| 73 | 21 | 78,43 | 229309 | 1647 | 0,7 |
| 74 | 121 | 1281,15 | 4424791 | 155019 | 3,5 |
| 75 | 8 | 27,50 | 83125 | 220 | 0,3 |
| 80 | 5 | 104,00 | 202549 | 520 | 0,3 |
| 85 | 37 | 132,14 | 940000 | 4889 | 0,5 |
| 90 | 3 | 514,00 | 250789 | 1542 | 0,6 |
| 91 | 0 | – | 4022 | 0 | 0,0 |
| 92 | 38 | 33,53 | 2422455 | 1274 | 0,1 |
| 93 | 7 | 4,00 | 95068 | 28 | 0,0 |
| Total | 678 | 450,53 | 147907261 | 305459 | 0,2 |

Table C.7

**Main generalising indicators of non-financial budget institutions in terms of capital investments by institutional sectors of economy**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CISE code | Number of budget institutions, units. | Average investments,  UAH thousand | Total investment amount | | Share of budget institutions by capital investment amount, % |
| overall, UAH thousand | including budget institutions, UAH thousand |
| 0 | 0 | – | 1160490 | 0 | 0,0 |
| 11 | 645 | 420,18 | 18043314 | 271018 | 1,5 |
| 12 | 8 | 172,25 | 112758399 | 1378 | 0,0 |
| 13 | 2 | 12224,50 | 15563763 | 24449 | 0,2 |
| 23 | 0 | – | 50 | 0 | 0,0 |
| 24 | 0 | – | 3264 | 0 | 0,0 |
| 27 | 0 | – | 7940 | 0 | 0,0 |
| 28 | 0 | – | 177604 | 0 | 0,0 |
| 29 | 0 | – | 30254 | 0 | 0,0 |
| 32 | 0 | – | 12574 | 0 | 0,0 |
| 33 | 0 | – | 1504 | 0 | 0,0 |
| 37 | 0 | – | 32 | 0 | 0,0 |
| 41 | 12 | 337,17 | 22683 | 4046 | 17,8 |
| 42 | 11 | 415,27 | 27542 | 4568 | 16,6 |
| 60 | 0 | – | 97848 | 0 | 0,0 |
| Total | 678 | 450,53 | 147907261 | 305459 | 0,2 |

Table C.8

**Main generalising indicators of non-financial budget institutions in terms of capital investments by regions**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| COATSU code | Number of budget institutions, units. | Average investments,  UAH thousand | Total investment amount | | Share of budget institutions by capital investment amount, % |
| overall, UAH thousand | including budget institutions, UAH thousand |
| 1 | 37 | 1698,78 | 4747726 | 62855 | 1,3 |
| 5 | 16 | 105,75 | 2337046 | 1692 | 0,1 |
| 7 | 17 | 32,94 | 2336110 | 560 | 0,0 |
| 12 | 40 | 342,90 | 12737306 | 13716 | 0,1 |
| 14 | 48 | 17,71 | 12698055 | 850 | 0,0 |
| 18 | 30 | 28,83 | 1729588 | 865 | 0,1 |
| 21 | 25 | 223,16 | 904572 | 5579 | 0,6 |
| 23 | 28 | 65,00 | 4679477 | 1820 | 0,0 |
| 26 | 17 | 14,53 | 2504743 | 247 | 0,0 |
| 32 | 21 | 1268,90 | 8080009 | 26647 | 0,3 |
| 35 | 16 | 157,88 | 2047414 | 2526 | 0,1 |
| 44 | 21 | 39,05 | 3927730 | 820 | 0,0 |
| 46 | 31 | 2230,06 | 6038578 | 69132 | 1,1 |
| 48 | 20 | 89,35 | 3533908 | 1787 | 0,1 |
| 51 | 31 | 210,65 | 10108364 | 6530 | 0,1 |
| 53 | 32 | 87,59 | 5139606 | 2803 | 0,1 |
| 56 | 14 | 407,57 | 1578621 | 5706 | 0,4 |
| 59 | 15 | 176,33 | 1481158 | 2645 | 0,2 |
| 61 | 15 | 109,67 | 1160028 | 1645 | 0,1 |
| 63 | 26 | 124,04 | 6996148 | 3225 | 0,1 |
| 65 | 28 | 197,32 | 1589082 | 5525 | 0,4 |
| 68 | 22 | 56,36 | 2902918 | 1240 | 0,0 |
| 71 | 21 | 320,67 | 1794252 | 6734 | 0,4 |
| 73 | 18 | 2374,83 | 1129743 | 42747 | 3,8 |
| 74 | 21 | 49,90 | 1348366 | 1048 | 0,1 |
| 80 | 59 | 400,25 | 43371563 | 23615 | 0,1 |
| 85 | 9 | 1433,33 | 1005150 | 12900 | 1,3 |
| Total | 678 | 450,53 | 147907261 | 305459 | 0,2 |

***Financial sector of economy***

Of 304159 enterprises of the financial sector of economy, 53183 are budget institutions, which accounts for 17.5%. Nearly all budget institutions belong to the financial sector (98.8%)*.* Results of the survey of budget institutions of the financial sector of economy are presented in Tables C.9 – C.17.

Table C.9

**Breakdown of financial budget institutions by size**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Size of institution | Number of enterprises | | Share of budget institutions | |
| total, units | including budget institutions, units | by size, % | in the total number, % |
| ***By law*** | | | | |
| 1 (small) | 292091 | 42884 | 80,63 | 14,68 |
| 2 (medium) | 12050 | 10299 | 19,37 | 85,47 |
| 3 (large) | 18 | 0 | 0 | 0,0 |
| ***By net profit*** | | | | |
| 1 (small) | 303996 | 53183 | 100,0 | 17,5 |
| large | 27 | 0 | 0,0 | 0,0 |
| 3 (велике) | 136 | 0 | 0,0 | 0,0 |
| ***By regular employment*** | | | | |
| 1 (small) | 292217 | 42884 | 80,6 | 14,7 |
| 2 (medium) | 9575 | 8258 | 15,5 | 86,3 |
| 3 (large) | 2367 | 2041 | 3,8 | 86,2 |
| **Total by each criterion** | 304159 | 53183 | 100,0 | 17,5 |

Table C.10

**Breakdown of financial budget institutions with investments, by size**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Size of institution | | Number of enterprises with investments | | Share of budget institutions by capital investment amount | |
| total, units | including budget institutions, units | by size, % | in the total number, % |
| ***By law*** | | | | | |
| 1 (small) | 9404 | | 7677 | 62,5 | 81,6 |
| 2 (medium) | 5203 | | 4604 | 37,5 | 88,5 |
| 3 (large) | 17 | | 0 | 0,0 | 0,0 |
| ***By net profit*** | | | | | |
| 1 (small) | 14571 | | 12281 | 100,0 | 84,3 |
| 2 (medium) | 7 | | 0 | 0,0 | 0,0 |
| 3 (large) | 44 | | 0 | 0,0 | 0,0 |
| ***By regular employment*** | | | | | |
| 1 (small) | 9426 | | 7677 | 62,5 | 81,4 |
| 2 (medium) | 3913 | | 3442 | 28,0 | 88,0 |
| 3 (large) | 1283 | | 1162 | 9,5 | 90,6 |
| **Total by each criterion** | 14622 | | 12281 | 100,0 | 84,0 |

Table C.11

**Breakdown of budget institutions in the population of financial enterprises by economic activities**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Number of enterprises | | Share of budget institutions in the total number, % |  | NACE code | Number of enterprises | | Share of budget institutions in the total number, % |
| total, units | including budget institutions, units | total, units | including budget institutions, units |
| 1 | 2057 | 3 | 0,2 | 37 | 88 | 0 | 0,0 |
| 2 | 24 | 0 | 0,0 | 40 | 49 | 0 | 0,0 |
| 5 | 39 | 1 | 2,6 | 41 | 63 | 0 | 0,0 |
| 10 | 26 | 0 | 0,0 | 45 | 1371 | 2 | 0,2 |
| 11 | 7 | 0 | 0,0 | 50 | 436 | 0 | 0,0 |
| 13 | 3 | 0 | 0,0 | 51 | 4745 | 0 | 0,0 |
| 14 | 43 | 0 | 0,0 | 52 | 665 | 0 | 0,0 |
| 15 | 258 | 0 | 0,0 | 55 | 357 | 6 | 1,7 |
| 16 | 2 | 0 | 0,0 | 60 | 250 | 1 | 0,4 |
| 17 | 25 | 0 | 0,0 | 61 | 7 | 0 | 0,0 |
| 18 | 55 | 0 | 0,0 | 62 | 11 | 0 | 0,0 |
| 19 | 24 | 0 | 0,0 | 63 | 699 | 2 | 0,3 |
| 20 | 125 | 0 | 0,0 | 64 | 89 | 0 | 0,0 |
| 21 | 26 | 0 | 0,0 | 65 | 3012 | 1 | 0,0 |
| 22 | 197 | 0 | 0,0 | 66 | 527 | 0 | 0,0 |
| 23 | 15 | 0 | 0,0 | 67 | 2178 | 0 | 0,0 |
| 24 | 74 | 0 | 0,0 | 70 | 28984 | 4 | 0,0 |
| 25 | 77 | 0 | 0,0 | 71 | 59 | 0 | 0,0 |
| 26 | 126 | 0 | 0,0 | 72 | 286 | 1 | 0,4 |
| 27 | 22 | 0 | 0,0 | 73 | 728 | 556 | 76,4 |
| 28 | 116 | 0 | 0,0 | 74 | 3114 | 159 | 5,1 |
| 29 | 183 | 0 | 0,0 | 75 | 46957 | 35027 | 74,6 |
| 30 | 22 | 0 | 0,0 | 80 | 38332 | 8795 | 22,9 |
| 31 | 75 | 0 | 0,0 | 85 | 22038 | 6581 | 29,9 |
| 32 | 27 | 0 | 0,0 | 90 | 78 | 1 | 1,3 |
| 33 | 36 | 0 | 0,0 | 91 | 136493 | 48 | 0,0 |
| 34 | 10 | 0 | 0,0 | 92 | 8429 | 1994 | 23,7 |
| 35 | 33 | 0 | 0,0 | 93 | 305 | 1 | 0,3 |
| 36 | 82 | 0 | 0,0 | Total | 304159 | 53183 | 17,5 |

Table C.12

**Breakdown of budget institutions in the population of financial enterprises by institutional sector of economy**

|  |  |  |  |
| --- | --- | --- | --- |
| CISE code | Number of enterprises | | Share of budget institutions in the total number, % |
| total, units | including budget institutions, units |
| 0 | 131 | 98 | 74,8 |
| 11 | 248 | 50 | 20,2 |
| 12 | 14816 | 25 | 0,2 |
| 13 | 573 | 7 | 1,2 |
| 21 | 1 | 0 | 0,0 |
| 23 | 2 | 0 | 0,0 |
| 24 | 343 | 0 | 0,0 |
| 25 | 25 | 0 | 0,0 |
| 27 | 84 | 0 | 0,0 |
| 28 | 2376 | 1 | 0,0 |
| 29 | 175 | 0 | 0,0 |
| 31 | 9 | 1 | 11,1 |
| 32 | 1931 | 0 | 0,0 |
| 33 | 126 | 0 | 0,0 |
| 35 | 12 | 0 | 0,0 |
| 36 | 710 | 0 | 0,0 |
| 37 | 42 | 0 | 0,0 |
| 41 | 21504 | 13106 | 61,0 |
| 42 | 79623 | 39822 | 50,0 |
| 43 | 979 | 1 | 0,1 |
| 60 | 180445 | 69 | 0,0 |
| 99 | 4 | 3 | 75,0 |
| Total | 304159 | 53183 | 17,5 |

Table C.13

**Breakdown of budget institutions in the population of financial enterprises by regions**

|  |  |  |  |
| --- | --- | --- | --- |
| COATSU code | Number of enterprises | | Share of budget institutions in the total number, % |
| total, units | including budget institutions, units |
| 1 | 13372 | 1694 | 12,7 |
| 5 | 10218 | 2471 | 24,2 |
| 7 | 8002 | 1421 | 17,8 |
| 12 | 18706 | 3646 | 19,5 |
| 14 | 21567 | 3056 | 14,2 |
| 18 | 9057 | 2725 | 30,1 |
| 21 | 8432 | 1726 | 20,5 |
| 23 | 10971 | 1881 | 17,2 |
| 26 | 8901 | 1719 | 19,3 |
| 32 | 13822 | 2228 | 16,1 |
| 35 | 7140 | 1597 | 22,4 |
| 44 | 11234 | 2319 | 20,6 |
| 46 | 18024 | 3375 | 18,7 |
| 48 | 8827 | 1565 | 17,7 |
| 51 | 14977 | 2295 | 15,3 |
| 53 | 11384 | 2046 | 18,0 |
| 56 | 7652 | 1469 | 19,2 |
| 59 | 7254 | 1643 | 22,7 |
| 61 | 8431 | 2035 | 24,1 |
| 63 | 15742 | 2220 | 14,1 |
| 65 | 7414 | 1308 | 17,6 |
| 68 | 9581 | 2149 | 22,4 |
| 71 | 9498 | 1904 | 20,1 |
| 73 | 6315 | 1212 | 19,2 |
| 74 | 7421 | 1912 | 25,8 |
| 80 | 26561 | 1295 | 4,9 |
| 85 | 3656 | 272 | 7,4 |
| Total | 304159 | 53183 | 17,5 |

Table C.14

**Main generalising indicators of financial budget institutions in terms of capital investments by economic activities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NACE code | Number of budget institutions, units. | Average investments,  UAH thousand | Total investment amount | | Share of budget institutions by capital investment amount, % |
| overall, UAH thousand | including budget institutions, UAH thousand |
| 1 | 3 | 144,7 | 9729 | 434 | 4,5 |
| 5 | 1 | – | 0 | 0 | – |
| 15 | 0 | – | 12001 | 0 | 0,0 |
| 20 | 0 | – | 145 | 0 | 0,0 |
| 21 | 0 | – | 1332 | 0 | 0,0 |
| 24 | 0 | – | 1246 | 0 | 0,0 |
| 26 | 0 | – | 1 | 0 | 0,0 |
| 28 | 0 | – | 57 | 0 | 0,0 |
| 29 | 0 | – | 3 | 0 | 0,0 |
| 36 | 0 | – | 4550 | 0 | 0,0 |
| 37 | 0 | – | 126 | 0 | 0,0 |
| 40 | 0 | – | 357 | 0 | 0,0 |
| 45 | 2 | – | 20204 | 0 | 0,0 |
| 50 | 0 | – | 117 | 0 | 0,0 |
| 51 | 0 | – | 18964 | 0 | 0,0 |
| 52 | 0 | – | 279 | 0 | 0,0 |
| 55 | 6 | – | 555 | 0 | 0,0 |
| 60 | 1 | – | 55 | 0 | 0,0 |
| 63 | 2 | – | 103 | 0 | 0,0 |
| 64 | 0 | – | 41 | 0 | 0,0 |
| 65 | 1 | 2362,0 | 4306455 | 2362 | 0,1 |
| 66 | 0 | – | 173968 | 0 | 0,0 |
| 67 | 0 | – | 72150 | 0 | 0,0 |
| 70 | 4 | 2,5 | 108997 | 10 | 0,0 |
| 72 | 1 | – | 6 | 0 | 0,0 |
| 73 | 556 | 222,1 | 130342 | 123507 | 94,8 |
| 74 | 159 | 472,5 | 1096145 | 75134 | 6,9 |
| 75 | 35027 | 168,9 | 8081479 | 5914470 | 73,2 |
| 80 | 8795 | 104,7 | 1464199 | 920650 | 62,9 |
| 85 | 6581 | 130,8 | 959233 | 861030 | 89,8 |
| 90 | 1 | – | 578 | 0 | 0,0 |
| 91 | 48 | – | 268773 | 0 | 0,0 |
| 92 | 1994 | 62,1 | 159544 | 123899 | 77,7 |
| 93 | 1 | – | 23379 | 0 | 0,0 |
| Total | 53183 | 150,83 | 16915113 | 8021496 | 47,4 |

Table C.15

**Main generalising indicators of financial budget institutions in terms of capital investments by institutional sectors of economy**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CISE code | Number of budget institutions, units. | Average investments,  UAH thousand | Total investment amount | | Share of budget institutions by capital investment amount, % |
| overall, UAH thousand | including budget institutions, UAH thousand |
| 0 | 98 | 390,6 | 770277 | 38283 | 5,0 |
| 11 | 50 | 605,2 | 50229 | 30260 | 60,2 |
| 12 | 25 | 1168,8 | 151045 | 29221 | 19,4 |
| 13 | 7 | 11,3 | 2047 | 79 | 3,9 |
| 23 | 0 | – | 12473 | 0 | 0,0 |
| 24 | 0 | – | 3261530 | 0 | 0,0 |
| 25 | 0 | – | 386833 | 0 | 0,0 |
| 27 | 0 | – | 2417 | 0 | 0,0 |
| 28 | 1 | 2362,0 | 407152 | 2362 | 0,6 |
| 29 | 0 | – | 142339 | 0 | 0,0 |
| 31 | 1 | 191,0 | 423 | 191 | 45,2 |
| 32 | 0 | – | 111033 | 0 | 0,0 |
| 33 | 0 | – | 2553 | 0 | 0,0 |
| 36 | 0 | – | 166497 | 0 | 0,0 |
| 37 | 0 | – | 7879 | 0 | 0,0 |
| 41 | 13106 | 282,4 | 6458657 | 3700880 | 57,3 |
| 42 | 39822 | 105,2 | 4453082 | 4187206 | 94,0 |
| 43 | 1 | – | 23194 | 0 | 0,0 |
| 60 | 69 | 468,0 | 504173 | 32289 | 6,4 |
| 99 | 3 | 241,7 | 1280 | 725 | 56,6 |
| Total | 53183 | 150,83 | 16915113 | 8021496 | 47,4 |

Table C.16

**Main generalising indicators of financial budget institutions in terms of capital investments by regions**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| COATSU code | Number of budget institutions, units. | Average investments,  UAH thousand | Total investment amount | | Share of budget institutions by capital investment amount, % |
| overall, UAH thousand | including budget institutions, UAH thousand |
| 1 | 1694 | 248,66 | 788751 | 421229 | 53,40 |
| 5 | 2471 | 88,73 | 238252 | 219240 | 92,02 |
| 7 | 1421 | 125,42 | 234878 | 178217 | 75,88 |
| 12 | 3646 | 70,75 | 919900 | 257962 | 28,04 |
| 14 | 3056 | 70,70 | 616831 | 216059 | 35,03 |
| 18 | 2725 | 50,08 | 386700 | 136477 | 35,29 |
| 21 | 1726 | 170,72 | 349127 | 294657 | 84,40 |
| 23 | 1881 | 67,16 | 194828 | 126323 | 64,84 |
| 26 | 1719 | 189,30 | 485873 | 325399 | 66,97 |
| 32 | 2228 | 44,40 | 118921 | 98919 | 83,18 |
| 35 | 1597 | 78,74 | 229286 | 125743 | 54,84 |
| 44 | 2319 | 162,52 | 443598 | 376878 | 84,96 |
| 46 | 3375 | 248,17 | 1010586 | 837583 | 82,88 |
| 48 | 1565 | 139,30 | 246299 | 218009 | 88,51 |
| 51 | 2295 | 182,87 | 1178019 | 419687 | 35,63 |
| 53 | 2046 | 139,08 | 400306 | 284560 | 71,09 |
| 56 | 1469 | 197,93 | 442110 | 290762 | 65,77 |
| 59 | 1643 | 100,20 | 657062 | 164627 | 25,06 |
| 61 | 2035 | 43,28 | 136531 | 88075 | 64,51 |
| 63 | 2220 | 212,72 | 900351 | 472246 | 52,45 |
| 65 | 1308 | 133,95 | 237343 | 175202 | 73,82 |
| 68 | 2149 | 51,41 | 142361 | 110470 | 77,60 |
| 71 | 1904 | 92,98 | 273788 | 177031 | 64,66 |
| 73 | 1212 | 188,32 | 416583 | 228240 | 54,79 |
| 74 | 1912 | 68,69 | 238512 | 131336 | 55,06 |
| 80 | 1295 | 1164,75 | 5456984 | 1508346 | 27,64 |
| 85 | 272 | 508,16 | 171333 | 138219 | 80,67 |
| Total | 53183 | 150,83 | 16915113 | 8021496 | 47,4 |

Table C.17

**Activity status of managing enterprises**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| OZST | Number of budget institutions | | | Capital investments, UAH thousand |
| total, units | non-financial sector, units | financial sector, units |
| A | 35543 | 673 | 34870 | 8116551 |
| F | 939 | 0 | 939 | 10710 |
| S | 189 | 5 | 184 | 95294 |
| \* | 17190 | 0 | 17190 | 104400 |

Annex D

**Selection of optimal stratification criteria**

This survey is aimed at selection of optimal stratification criteria for the main subpopulation of small-sized enterprises in the capital investment survey.

Let us consider the following stratification attributes:

1) NACE division (two digits of NACE code);

2) NACE group (three digits of NACE code);

3) CISE institutional sector of economy;

4) regional belonging (two digits of COATSU code);

5) average employment (6 groups).

Table D.1

**Criteria of group generation for stratification by average employment**

|  |  |
| --- | --- |
| Group code | Criteria for entering of enterprise into group |
| 1 | Spchv=0 persons |
| 2 | 1 person spchv 2 persons |
| 3 | 3 persons spchv 5 persons |
| 4 | 6 persons  spchv 9 persons |
| 5 | 10 persons  spchv 19 persons |
| 6 | 20 persons  spchv <50 persons |

We will investigate the following 5 stratification schemes:

* “NACE2” stratification”. Strata have number XXY, where XX – NACE code (variable vdf), Y – attribute referring enterprise to the financial or non-financial sector of economy (assumes value 1 for the non-financial sector enterprises, assumes value 2 for the financial sector enterprises).
* “NACE3” stratification. Strata have number XXXY, where XXX – NACE code, Y – attribute referring enterprise to the financial or non-financial sector.
* CISE stratification. Strata have number XXY, where XX – CISE code (variable kice), Y – attribute referring enterprise to the financial or non-financial sector.
* Stratification by regions. Strata have number XXY, where XX – region code (variable te), Y – attribute referring enterprise to the financial or non-financial sector.
* Stratification by average employment. Strata have number XY, where X – group by average employment (variable pr), Y – attribute referring enterprise to the financial or non-financial sector.

One of the measures of the sampling design quality is the so-called design effect. Design effect of a certain selection is a relation of variance of estimate of the used sample design to variance of this estimate for simple random sample without return (hereinafter - “the PVVbP”). That is, for total capital investment amount, design effect can be found with the formula:

,



where  – estimate of the total capital investments;

 – variance of the total capital investments for stratified random sampling without return (SVVbP);

 – variance of estimate of the total capital investments for simple random sampling without return (PVVbP);

Let us first of all consider Horwitz-Thompson estimator for the capital investments. Variance of Horwitz-Thompson estimator for the total value for PVVBP can be found with the formula:

,

where  – variance of capital investments based on the general population , estimated with the formula:

,

 – value of capital investments of the *іth* element of the general population ;

 – average capital investments in the general population calculated with the formula:

,

*N* – amount of general population;

*n* – volume of sample.

Variance of Horwitz-Thompson estimator for the total value for SVVbP can be found with the formula:

,

where *h* – stratum number.

However, we are interested to estimate capital investments not only at the national level but by regions, economic activities, and institutional sectors of economy. Subpopulations which require obtainment of estimates are called domains. Therefore in our case domains are regions, economic activities and institutional sectors of economy.

In estimation of domain indicators, calculations will be similar to the general case, however, being conducted for variable 

where  – a part of the general population that belongs to domain *d.*

That is, for the total amount of capital investments estimated for domain *d*, design effect will be determined with the formula:

,



where  – total amount of capital investments for domain *d* calculated by , i.e. .

Variance of Horwitz-Thompson estimator for the total value for domain *d* at PVVbP can be estimated with the formula:

,

where  – capital investment variance estimated by :

,

 – average capital investments estimated by :

.

Variance of Horwitz-Thompson estimator for the total value for SVVbP can be found with the formula:

.

A second estimator to be investigated is estimator by regression (regression estimator). This estimator makes use of a model including an additional variable *хі*. Regression estimator model can be both direct, with information used only from a surveyed domain, and indirect, based on other domains’ information. In our investigation we looked at an indirect estimator based on the relation GREG-P, which uses model , : This estimator can be calculated with the formula:

.

Regular employment indicator was assumed as additional variable *xk* (as an additional variable, we will assume that one which correlates well with the target attribute). Correlation of capital investments with this variable appears to be the best one (33%).

Variance of GREG-P estimator can be calculated with the formula:

,

where  – sampling share in stratum , ,  – variance of capital investments in stratum  estimated based on values , where , .

Table D.2

**Design effect with various stratification schemes for Horwitz-Thompson estimator for the total amount of capital investments**

|  |  |  |
| --- | --- | --- |
| Sampling and stratification | HT estimator variance | Design effect |
| PVVbP | 2,47·1013 | 1,00 |
| NACE2 stratification | 1,09·1013 | 0,44 |
| NACE3 stratification | 7,95·1012 | 0,32 |
| CISE stratification | 1,52·1013 | 0,61 |
| Regional stratification | 1,48·1013 | 0,60 |
| Average employment stratification | 1,08·1013 | 0,44 |

Table D.3

**Design effect with various stratification schemes for GREG-Р estimator for the total amount of capital investments**

|  |  |  |
| --- | --- | --- |
| Sampling and stratification | GREG-Р estimator variance | Design effect |
| PVVbP | 1,33·1013 | 1,00 |
| NACE2 stratification | 4,18·1012 | 0,31 |
| NACE3 stratification | 2,86·1012 | 0,22 |
| CISE stratification | 6,45·1012 | 0,48 |
| Regional stratification | 6,62·1012 | 0,50 |
| Average employment stratification | 4,31·1012 | 0,32 |

Table D.4

**Design effect with various stratification schemes for Horwitz-Thompson estimator for the total amount of capital investments by economic activities**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Variance of the total investments | | | | | | Design effect | | | | |
| at PVVbP | in stratification by | | | | | in stratification by | | | | |
| NACE division | NACE group | institutional sectors of economy | regions | average employment | NACE division | NACE group | institutional  sectors of economy | regions | average employment |
| 1 | 1,26·1011 | 3,13·1011 | 3,13∙1011 | 8,21∙1010 | 1,96∙1011 | 5,55∙1010 | 2,49 | 2,11 | 0,65 | 1,56 | 0,44 |
| 2 | 1,80·107 | 9,87·107 | 9,87∙107 | 1,43∙107 | 1,99∙107 | 5,44∙106 | 5,47 | 5,52 | 0,79 | 1,10 | 0,30 |
| 5 | 3,42·1008 | 2,50·109 | 2,50∙109 | 2,31∙108 | 8,20∙108 | 2,59∙108 | 7,30 | 6,74 | 0,68 | 2,40 | 0,76 |
| 10 | 3,67·1008 | 8,70·108 | 8,70∙1008 | 2,49∙108 | 1,52∙108 | 2,24∙108 | 2,37 | 1,93 | 0,68 | 0,42 | 0,61 |
| 11 | 3,04·1010 | 5,70·109 | 5,70∙109 | 1,93∙1010 | 4,10∙1010 | 6,25∙1009 | 0,19 | 0,11 | 0,63 | 1,35 | 0,21 |
| 13 | 1,74·108 | 1,16·107 | 1,16∙107 | 1,18∙108 | 2,52∙108 | 1,68∙108 | 0,07 | 0,00 | 0,68 | 1,45 | 0,97 |
| 14 | 3,51·109 | 8,63·109 | 8,63∙109 | 2,24∙109 | 4,55∙109 | 1,82∙109 | 2,46 | 1,95 | 0,64 | 1,29 | 0,52 |
| 15 | 7,91·1011 | 2,28·1011 | 2,28∙1011 | 5,22∙1011 | 4,53∙1011 | 7,66∙1011 | 0,29 | 0,08 | 0,66 | 0,57 | 0,97 |
| 16 | 1,81·108 | 0 | 0,00∙1010 | 9,24∙107 | 1,33∙108 | 4,38∙107 | 0,00 | 0,00 | 0,51 | 0,73 | 0,24 |
| 17 | 3,65·108 | 2,49·109 | 2,49∙109 | 1,89∙108 | 2,03∙108 | 7,86∙107 | 6,82 | 2,04 | 0,52 | 0,56 | 0,22 |
| 18 | 1,27·1010 | 2,27·1010 | 2,27∙1010 | 1,75∙109 | 2,19∙1010 | 6,87∙109 | 1,78 | 1,54 | 0,14 | 1,72 | 0,54 |
| 19 | 8,66·107 | 3,35·108 | 3,35∙1008 | 3,04∙107 | 7,06∙107 | 2,05∙107 | 3,87 | 2,06 | 0,35 | 0,82 | 0,24 |
| 20 | 6,57·1010 | 6,23·1010 | 6,23∙1010 | 4,39∙1010 | 6,00∙1010 | 1,79∙1010 | 0,95 | 0,58 | 0,67 | 0,91 | 0,27 |
| 21 | 9,77·108 | 2,99·109 | 2,99∙109 | 7,54∙108 | 5,25∙108 | 4,37∙108 | 3,06 | 2,59 | 0,77 | 0,54 | 0,45 |
| 22 | 6,76·109 | 3,06·1010 | 3,06∙1010 | 4,52∙109 | 2,88∙109 | 5,75∙109 | 4,53 | 3,70 | 0,67 | 0,43 | 0,85 |
| 23 | 1,09·109 | 1,54·109 | 1,54∙109 | 8,14∙108 | 8,72∙108 | 2,39∙108 | 1,41 | 0,79 | 0,75 | 0,80 | 0,22 |
| 24 | 4,34·109 | 1,15·1010 | 1,15∙1010 | 1,52∙109 | 7,26∙109 | 1,22∙109 | 2,66 | 1,69 | 0,35 | 1,67 | 0,28 |
| 25 | 1,97·1010 | 2,87·1010 | 2,87∙1010 | 4,39∙109 | 1,20∙1010 | 5,19∙109 | 1,46 | 1,21 | 0,22 | 0,61 | 0,26 |
| 26 | 8,50·109 | 2,34·1010 | 2,34∙1010 | 5,70∙109 | 1,60∙1010 | 4,02∙109 | 2,75 | 1,86 | 0,67 | 1,88 | 0,47 |
| 27 | 1,13·109 | 2,79·109 | 2,79∙109 | 7,33∙108 | 8,69∙108 | 3,66∙108 | 2,47 | 0,44 | 0,65 | 0,77 | 0,32 |
| 28 | 2,32·1011 | 1,06·1011 | 1,06∙1011 | 3,10∙1010 | 1,99∙1011 | 4,77∙1010 | 0,46 | 0,12 | 0,13 | 0,86 | 0,21 |
| 29 | 4,98·109 | 2,17·1010 | 2,17∙1010 | 3,32∙1009 | 2,50∙109 | 3,11∙109 | 4,35 | 2,83 | 0,67 | 0,50 | 0,62 |
| 30 | 4,96·107 | 2,00·108 | 2,00∙1008 | 3,35∙107 | 3,13∙107 | 1,22∙107 | 4,03 | 4,03 | 0,67 | 0,63 | 0,25 |
| 31 | 6,86·108 | 5,30·109 | 5,30∙109 | 4,64∙108 | 1,13∙109 | 1,63∙108 | 7,72 | 5,56 | 0,68 | 1,64 | 0,24 |
| 32 | 7,84·107 | 4,75·108 | 4,75∙1008 | 5,29∙107 | 8,11∙107 | 2,07∙107 | 6,07 | 2,62 | 0,68 | 1,03 | 0,26 |
| 33 | 1,09·108 | 1,51·109 | 1,51∙109 | 7,27∙107 | 1,05∙108 | 3,04∙107 | 13,83 | 5,50 | 0,67 | 0,96 | 0,28 |
| 34 | 2,16·109 | 3,19·109 | 3,19∙109 | 1,46∙1009 | 3,38∙109 | 4,89∙108 | 1,47 | 0,77 | 0,68 | 1,56 | 0,23 |
| 35 | 6,80·1010 | 2,42·1010 | 2,42∙1010 | 4,60∙1010 | 2,31∙1010 | 1,68∙1010 | 0,36 | 0,21 | 0,68 | 0,34 | 0,25 |
| 36 | 9,88·108 | 6,52·109 | 6,52∙109 | 1,63∙109 | 1,26∙109 | 3,09∙109 | 6,60 | 3,84 | 1,65 | 1,27 | 3,13 |
| 37 | 1,07·109 | 4,63·109 | 4,63∙109 | 7,21∙1008 | 1,02∙109 | 3,36∙1008 | 4,35 | 2,55 | 0,68 | 0,96 | 0,32 |
| 40 | 1,99·109 | 5,96·109 | 5,96∙109 | 1,36∙109 | 1,55∙109 | 1,29∙109 | 2,99 | 2,33 | 0,68 | 0,78 | 0,65 |
| 41 | 1,32·109 | 6,31·109 | 6,31∙109 | 6,36∙108 | 8,56∙108 | 4,46∙108 | 4,78 | 4,18 | 0,48 | 0,65 | 0,34 |
| 45 | 5,67·1012 | 1,54·1012 | 1,54∙1012 | 2,26∙1012 | 2,23∙1012 | 2,32∙1012 | 0,27 | 0,19 | 0,40 | 0,39 | 0,41 |
| 50 | 3,63·1010 | 8,18·1010 | 8,18∙1010 | 2,16∙1010 | 3,15∙1010 | 1,31∙1010 | 2,25 | 1,54 | 0,59 | 0,87 | 0,36 |
| 51 | 4,64·1012 | 2,40·1012 | 2,40∙1012 | 3,11∙1012 | 2,12∙1012 | 2,14∙1012 | 0,52 | 0,37 | 0,67 | 0,46 | 0,46 |
| 52 | 7,42·1010 | 1,84·1011 | 1,84∙1011 | 4,81∙1010 | 4,55∙1010 | 4,00∙1010 | 2,48 | 1,87 | 0,65 | 0,61 | 0,54 |
| 55 | 6,16·1010 | 1,11·1011 | 1,11∙1011 | 4,08∙1010 | 3,21∙1010 | 2,38∙1010 | 1,80 | 1,35 | 0,66 | 0,52 | 0,39 |
| 60 | 1,24·1011 | 1,20·1011 | 1,20∙1011 | 8,41∙1010 | 4,98∙1010 | 3,31∙1010 | 0,97 | 0,84 | 0,68 | 0,40 | 0,27 |
| 61 | 4,45·107 | 6,31·107 | 6,31∙107 | 3,01∙107 | 5,28∙107 | 1,38∙107 | 1,42 | 0,60 | 0,68 | 1,19 | 0,31 |
| 62 | 4,58·108 | 4,88·108 | 4,88∙1008 | 3,10∙108 | 1,70∙108 | 9,41∙107 | 1,07 | 0,69 | 0,68 | 0,37 | 0,21 |
| 63 | 7,00·1010 | 1,15·1011 | 1,15∙1011 | 4,20∙1010 | 5,83∙1010 | 2,87∙1010 | 1,64 | 1,19 | 0,60 | 0,83 | 0,41 |
| 64 | 5,48·109 | 1,51·1010 | 1,51∙1010 | 3,31∙109 | 3,81∙108 | 2,69∙109 | 2,75 | 2,28 | 0,60 | 0,70 | 0,49 |
| 65 | 9,87·1011 | 1,48·1011 | 1,48∙1011 | 1,91∙1011 | 8,63∙1011 | 2,87∙1011 | 0,15 | 0,11 | 0,19 | 0,87 | 0,29 |
| 66 | 1,84·109 | 3,98·109 | 3,98∙109 | 5,64∙109 | 1,48∙109 | 1,97∙109 | 2,16 | 1,96 | 3,06 | 0,80 | 1,07 |
| 67 | 1,95·1010 | 2,92·1010 | 2,92∙1010 | 1,97∙1010 | 1,56∙1010 | 2,68∙1010 | 1,50 | 1,23 | 1,01 | 0,80 | 1,38 |
| 70 | 8,46·1012 | 1,55·1012 | 1,55∙1012 | 4,87∙1012 | 4,38∙1012 | 3,33∙1012 | 0,18 | 0,13 | 0,57 | 0,52 | 0,39 |
| 71 | 2,26·1011 | 8,48·1010 | 8,48∙1010 | 1,35∙1011 | 2,34∙1011 | 9,57∙1010 | 0,37 | 0,29 | 0,60 | 1,03 | 0,42 |
| 72 | 5,22·108 | 8,43·109 | 8,43∙109 | 2,99∙108 | 3,72∙108 | 1,96∙108 | 16,17 | 10,76 | 0,57 | 0,71 | 0,38 |
| 73 | 3,70·109 | 1,74·1010 | 1,74∙1010 | 1,88∙109 | 3,61∙109 | 1,60∙108 | 4,70 | 3,85 | 0,51 | 0,97 | 0,43 |
| 74 | 6,77·1011 | 7,10·1011 | 7,10∙1011 | 5,76∙1011 | 4,52∙1011 | 2,67∙1011 | 1,05 | 0,80 | 0,85 | 0,67 | 0,39 |
| 75 | 1,59·1012 | 1,12·1012 | 1,12∙1012 | 1,31∙1012 | 2,53∙1012 | 6,90∙1011 | 0,71 | 0,60 | 0,83 | 1,59 | 0,43 |
| 80 | 1,59·1011 | 3,55·1011 | 3,55∙1011 | 7,81∙1010 | 1,88∙1011 | 1,63∙1011 | 2,24 | 1,43 | 0,49 | 1,18 | 1,02 |
| 85 | 1,15·1011 | 2,23·1011 | 2,23∙1011 | 2,26∙1011 | 2,09∙1011 | 9,44∙1010 | 1,94 | 1,66 | 1,96 | 1,82 | 0,82 |
| 90 | 1,49·109 | 6,45·109 | 6,45∙109 | 1,17∙109 | 1,11∙109 | 3,91∙108 | 4,32 | 3,81 | 0,78 | 0,74 | 0,26 |
| 91 | 3,81·1011 | 1,08·1012 | 1,08∙1012 | 1,34∙1012 | 2,81∙1011 | 2,83∙1011 | 2,84 | 2,17 | 3,51 | 0,74 | 0,74 |
| 92 | 3,05·1010 | 5,93·1010 | 5,93∙1010 | 1,13∙1010 | 1,99∙1010 | 1,63∙1010 | 1,95 | 1,18 | 0,37 | 0,65 | 0,53 |
| 93 | 1,19·1010 | 2,81·1010 | 2,81∙1010 | 3,67∙1010 | 8,05∙109 | 5,71∙109 | 2,36 | 2,08 | 3,09 | 0,68 | 0,48 |
| Total | 2,47·1013 | 1,09·1013 | 1,09∙1013 | 1,52∙1013 | 1,48∙1013 | 1,08∙1013 | 2,93 | 2,01 | 0,78 | 0,93 | 0,50 |

Table D.5

**Design effect with various stratification schemes for Horwitz-Thompson estimator for the total amount of capital investments by institutional sectors of economy**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Variance of the total investments | | | | | | Design effect | | | | |
| at PVVbP | in stratification by | | | | | in stratification by | | | | |
| NACE division | NACE group | institutional  sectors of economy | regions | average employment | NACE division | NACE group | institutional  sectors of economy | regions | average employment |
| 0 | 1,30∙1011 | 3,18∙1010 | 2,75∙1010 | 2,62∙1010 | 9,82∙1010 | 1,81∙1011 | 0,24 | 0,21 | 0,20 | 0,75 | 1,39 |
| 11 | 3,31∙1011 | 2,65∙1011 | 1,91∙1011 | 2,84∙1011 | 2,74∙1011 | 9,09∙1010 | 0,80 | 0,58 | 0,86 | 0,83 | 0,27 |
| 12 | 1,61∙1013 | 6,24∙1012 | 4,37∙1012 | 1,10∙1013 | 8,50∙1012 | 7,41∙1012 | 0,39 | 0,27 | 0,68 | 0,53 | 0,46 |
| 13 | 4,82∙1012 | 1,37∙1012 | 9,87∙1011 | 6,28∙1011 | 1,78∙1012 | 1,71∙1012 | 0,28 | 0,20 | 0,13 | 0,37 | 0,36 |
| 23 | 2,25∙104 | 2,90∙104 | 3,18∙104 | 0,00 | 2,45∙104 | 1,44∙104 | 1,29 | 1,41 | 0,00 | 1,09 | 0,64 |
| 24 | 3,63∙1011 | 5,47∙1010 | 3,92∙105 | 9,27∙109 | 3,83∙1011 | 1,10∙1011 | 0,15 | 0,00 | 0,03 | 1,06 | 0,30 |
| 25 | 3,81∙109 | 5,74∙108 | 0,00 | 4,23∙107 | 2,80∙109 | 2,81∙109 | 0,15 | 0,00 | 0,01 | 0,74 | 0,74 |
| 27 | 5,75∙108 | 1,42∙109 | 1,37∙109 | 7,14∙106 | 8,00∙108 | 1,27∙108 | 2,47 | 2,39 | 0,01 | 1,39 | 0,22 |
| 28 | 6,50∙1011 | 1,04∙1011 | 1,09∙1011 | 1,42∙1011 | 4,89∙1011 | 1,47∙1011 | 0,16 | 0,17 | 0,22 | 0,75 | 0,23 |
| 29 | 1,99∙1010 | 3,19∙109 | 3,12∙109 | 6,51∙109 | 1,17∙1010 | 8,70∙109 | 0,16 | 0,16 | 0,33 | 0,59 | 0,44 |
| 31 | 3,29∙105 | 2,33∙105 | 2,07∙105 | 0,00 | 3,47∙106 | 6,60∙104 | 0,71 | 0,63 | 0,00 | 10,54 | 0,20 |
| 32 | 4,43∙1010 | 3,20∙1010 | 2,74∙1010 | 4,60∙1010 | 3,26∙1010 | 6,27∙1010 | 0,72 | 0,62 | 1,04 | 0,74 | 1,42 |
| 33 | 2,39∙106 | 1,33∙106 | 1,08∙106 | 7,69∙105 | 1,14∙106 | 3,60∙106 | 0,55 | 0,45 | 0,32 | 0,48 | 1,51 |
| 35 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 36 | 1,84∙109 | 3,98∙109 | 3,61∙109 | 5,65∙109 | 1,48∙109 | 1,97∙109 | 2,16 | 1,96 | 3,07 | 0,80 | 1,07 |
| 37 | 8,96∙1006 | 1,70∙107 | 2,03∙107 | 2,47∙1006 | 6,60∙106 | 3,12∙107 | 1,89 | 2,26 | 0,28 | 0,74 | 3,48 |
| 41 | 1,50∙1012 | 1,30∙1012 | 1,03∙1012 | 7,31∙1011 | 2,15∙1012 | 4,63∙1011 | 0,87 | 0,69 | 0,49 | 1,44 | 0,31 |
| 42 | 2,86∙1011 | 2,40∙1011 | 2,09∙1011 | 7,79∙1011 | 6,53∙1011 | 2,28∙1011 | 0,84 | 0,73 | 2,72 | 2,28 | 0,80 |
| 43 | 5,08∙107 | 3,60∙107 | 4,53∙108 | 4,52∙108 | 9,29∙107 | 1,10∙107 | 0,71 | 8,92 | 8,90 | 1,83 | 0,22 |
| 60 | 4,38∙1011 | 1,29∙1012 | 9,99∙1011 | 1,54∙1012 | 4,27∙1011 | 3,75∙1011 | 2,95 | 2,28 | 3,51 | 0,97 | 0,86 |
| 99 | 5,70∙106 | 1,54∙107 | 8,28∙106 | 0,00 | 4,37∙106 | 2,12∙107 | 2,70 | 1,45 | 0,00 | 0,77 | 3,72 |
| Total | 2,47∙1013 | 1,09∙1013 | 7,96∙1012 | 1,52∙1013 | 1,48∙1013 | 1,08∙1013 | 0,96 | 1,21 | 1,08 | 1,37 | 0,89 |

Table D.6

**Design effect with various stratification schemes for Horwitz-Thompson estimator for the total amount of capital investments by regions**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Variance of the total investments | | | | | | Design effect | | | | |
| at PVVbP | in stratification by | | | | | in stratification by | | | | |
| NACE division | NACE group | institutional  sectors of economy | regions | average employment | NACE division | NACE group | institutional  sectors of economy | regions | average employment |
| 1 | 3,17∙1012 | 1,03∙1012 | 7,38∙1011 | 6,25∙1011 | 9,35∙1011 | 8,79∙1011 | 0,33 | 0,23 | 0,20 | 0,30 | 0,28 |
| 5 | 9,11∙1010 | 6,28∙1010 | 5,79∙1010 | 1,35∙1011 | 2,07∙1011 | 3,68∙1010 | 0,69 | 0,64 | 1,48 | 2,27 | 0,40 |
| 7 | 3,19∙1010 | 2,51∙1010 | 2,37∙1010 | 1,66∙1010 | 9,93∙1010 | 1,91∙1010 | 0,79 | 0,74 | 0,52 | 3,11 | 0,60 |
| 12 | 9,31∙1011 | 4,00∙1011 | 3,36∙1011 | 8,02∙1011 | 9,01∙1011 | 4,33∙1011 | 0,43 | 0,36 | 0,86 | 0,97 | 0,46 |
| 14 | 5,18∙1011 | 2,46∙1011 | 2,03∙1011 | 3,33∙1011 | 7,94∙1011 | 1,34∙1011 | 0,47 | 0,39 | 0,64 | 1,53 | 0,26 |
| 18 | 1,80∙1011 | 9,85∙1010 | 6,37∙1010 | 1,22∙1011 | 1,82∙1011 | 6,52∙1010 | 0,55 | 0,35 | 0,68 | 1,01 | 0,36 |
| 21 | 1,20∙1011 | 5,87∙1010 | 5,52∙1010 | 9,46∙1010 | 1,62∙1011 | 6,48∙1010 | 0,49 | 0,46 | 0,79 | 1,35 | 0,54 |
| 23 | 9,96∙1010 | 5,85∙1010 | 4,87∙1010 | 6,08∙1010 | 2,55∙1011 | 4,72∙1010 | 0,59 | 0,49 | 0,61 | 2,56 | 0,47 |
| 26 | 1,50∙1011 | 1,61∙1011 | 1,50∙1011 | 1,07∙1011 | 2,42∙1011 | 9,19∙1010 | 1,07 | 1,00 | 0,71 | 1,61 | 0,61 |
| 32 | 9,71∙1011 | 3,58∙1011 | 1,42∙1011 | 6,41∙1011 | 5,69∙1011 | 8,19∙1011 | 0,37 | 0,15 | 0,66 | 0,59 | 0,84 |
| 35 | 1,61∙1011 | 1,08∙1011 | 1,01∙1011 | 9,96∙1010 | 2,33∙1011 | 6,93∙1010 | 0,67 | 0,63 | 0,62 | 1,45 | 0,43 |
| 44 | 3,59∙1011 | 1,82∙1011 | 1,05∙1011 | 1,45∙1011 | 3,81∙1011 | 1,08∙1011 | 0,51 | 0,29 | 0,40 | 1,06 | 0,30 |
| 46 | 1,77∙1012 | 5,80∙∙1011 | 5,00∙1011 | 4,87∙1011 | 1,01∙1012 | 8,81∙1011 | 0,33 | 0,28 | 0,28 | 0,57 | 0,50 |
| 48 | 1,92∙1011 | 7,48∙1010 | 5,72∙1010 | 1,28∙1011 | 2,85∙1011 | 8,89∙1010 | 0,39 | 0,30 | 0,67 | 1,49 | 0,46 |
| 51 | 2,45∙1012 | 1,00∙1012 | 7,33∙1011 | 1,62∙1012 | 1,32∙1012 | 1,26∙1012 | 0,41 | 0,30 | 0,66 | 0,54 | 0,51 |
| 53 | 1,81∙1011 | 1,23∙1011 | 1,28∙1011 | 1,90∙1011 | 3,04∙1011 | 5,00∙1010 | 0,68 | 0,71 | 1,05 | 1,68 | 0,28 |
| 56 | 1,48∙1011 | 1,34∙1011 | 1,20∙1011 | 1,82∙1011 | 2,16∙1011 | 4,32∙1010 | 0,90 | 0,81 | 1,22 | 1,45 | 0,29 |
| 59 | 3,53∙1010 | 3,01∙1010 | 2,51∙1010 | 6,10∙1010 | 1,08∙1011 | 1,46∙1010 | 0,85 | 0,71 | 1,73 | 3,07 | 0,41 |
| 61 | 3,00∙1010 | 3,31∙1010 | 2,98∙1010 | 2,77∙1010 | 9,09∙1010 | 1,51∙1010 | 1,11 | 0,99 | 0,92 | 3,03 | 0,50 |
| 63 | 8,33∙1011 | 2,83∙1011 | 2,38∙1011 | 3,60∙1011 | 9,04∙1011 | 3,03∙1011 | 0,34 | 0,29 | 0,43 | 1,09 | 0,36 |
| 65 | 4,73∙1010 | 8,13∙1010 | 7,06∙1010 | 4,69∙1010 | 1,29∙1011 | 5,79∙1010 | 1,72 | 1,49 | 0,99 | 2,73 | 1,22 |
| 68 | 3,30∙1010 | 3,01∙1010 | 3,09∙1010 | 2,60∙1010 | 9,49∙1010 | 2,43∙1010 | 0,91 | 0,94 | 0,79 | 2,87 | 0,74 |
| 71 | 6,77∙1010 | 5,63∙1010 | 4,69∙1010 | 3,97∙1010 | 1,73∙1011 | 1,97∙1010 | 0,83 | 0,69 | 0,59 | 2,55 | 0,29 |
| 73 | 3,58∙1011 | 2,61∙1011 | 2,31∙1011 | 1,84∙1011 | 2,63∙1011 | 7,99∙1010 | 0,73 | 0,65 | 0,52 | 0,74 | 0,22 |
| 74 | 2,23∙1010 | 3,07∙1010 | 2,80∙1010 | 1,56∙1010 | 7,47∙1010 | 8,25∙109 | 1,38 | 1,26 | 0,70 | 3,35 | 0,37 |
| 80 | 1,14∙1013 | 5,21∙1012 | 3,54∙1012 | 8,42∙1012 | 4,63∙1012 | 5,09∙1012 | 0,46 | 0,31 | 0,74 | 0,40 | 0,45 |
| 85 | 3,54∙1011 | 2,28∙1011 | 1,57∙1011 | 2,19∙1011 | 2,36∙1011 | 1,03∙1011 | 0,64 | 0,44 | 0,62 | 0,67 | 0,29 |
| Total | 2,47∙1013 | 1,09∙1013 | 7,97∙1012 | 1,52∙1013 | 1,48∙1013 | 1,08∙1013 | 0,69 | 0,59 | 0,74 | 1,63 | 0,46 |

Table D.7

**Design effect with various stratification schemes for GREG-Р estimator for the total amount of capital investments by economic activities**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Variance of the total investments | | | | | | Design effect | | | | |
| at PVVbP | in stratification by | | | | | in stratification by | | | | |
| NACE division | NACE group | institutional  sectors of economy | regions | average employment | NACE division | NACE group | institutional  sectors of economy | regions | average employment |
| 1 | 5,24·1010 | 4,95∙1010 | 4,53∙1010 | 4,75∙1010 | 3,36∙1010 | 1,58∙1010 | 0,94 | 0,86 | 0,91 | 0,64 | 0,3 |
| 2 | 7,36·106 | 6,96∙106 | 6,96∙106 | 6,02∙106 | 1,41∙106 | 4,42∙106 | 0,95 | 0,95 | 0,82 | 0,19 | 0,6 |
| 5 | 1,49·108 | 1,41∙108 | 1,41∙108 | 1,36∙108 | 1,44∙107 | 8,47∙107 | 0,94 | 0,94 | 0,91 | 0,1 | 0,57 |
| 10 | 1,61·108 | 1,40∙108 | 1,12∙108 | 1,17∙108 | 8,06∙106 | 6,90∙106 | 0,87 | 0,7 | 0,73 | 0,05 | 0,04 |
| 11 | 1,20·1010 | 1,11∙1010 | 6,23∙109 | 9,77∙109 | 1,15∙109 | 4,40∙106 | 0,93 | 0,52 | 0,82 | 0,1 | 0 |
| 13 | 7,32·107 | 1,18∙107 | 0 | 7,85∙106 | 0 | 1,42∙106 | 0,16 | 0 | 0,11 | 0 | 0,02 |
| 14 | 1,46·109 | 1,38∙109 | 1,23∙109 | 1,33∙109 | 4,72∙108 | 1,04∙109 | 0,95 | 0,85 | 0,91 | 0,32 | 0,71 |
| 15 | 3,51·1011 | 3,37∙1011 | 3,86∙1010 | 3,29∙1011 | 1,70∙1010 | 1,45∙1011 | 0,96 | 0,11 | 0,94 | 0,05 | 0,41 |
| 16 | 4,50·107 | 0 | 0 | 0 | 0 | 0 | \* | \* | \* | \* | \* |
| 17 | 1,55·108 | 1,48∙108 | 8,84∙107 | 1,23∙108 | 1,64∙107 | 1,71∙107 | 0,96 | 0,57 | 0,79 | 0,11 | 0,11 |
| 18 | 5,66·109 | 5,46∙109 | 5,24∙109 | 1,51∙108 | 8,09∙107 | 2,26∙108 | 0,96 | 0,92 | 0,03 | 0,01 | 0,04 |
| 19 | 3,57·107 | 3,29∙107 | 2,58∙107 | 1,66∙107 | 6,10∙106 | 1,05∙107 | 0,92 | 0,72 | 0,46 | 0,17 | 0,29 |
| 20 | 2,91·1010 | 2,77∙1010 | 1,23∙1010 | 2,58∙1010 | 9,80∙108 | 2,57∙109 | 0,95 | 0,42 | 0,89 | 0,03 | 0,09 |
| 21 | 4,03·108 | 3,86∙108 | 3,48∙108 | 3,77∙108 | 1,43∙107 | 6,81∙107 | 0,96 | 0,87 | 0,94 | 0,04 | 0,17 |
| 22 | 2,98·109 | 2,86∙109 | 2,40∙109 | 2,39∙109 | 1,35∙109 | 1,63∙109 | 0,96 | 0,8 | 0,8 | 0,45 | 0,55 |
| 23 | 3,90·108 | 3,43∙108 | 2,30∙108 | 1,86∙108 | 6,67∙107 | 2,63∙106 | 0,88 | 0,59 | 0,48 | 0,17 | 0,01 |
| 24 | 1,84·109 | 1,76∙109 | 1,08∙109 | 7,74∙108 | 1,51∙108 | 3,42∙108 | 0,95 | 0,59 | 0,42 | 0,08 | 0,19 |
| 25 | 8,74·109 | 8,34∙109 | 7,57∙109 | 2,14∙109 | 2,62∙109 | 3,56∙109 | 0,95 | 0,87 | 0,24 | 0,3 | 0,41 |
| 26 | 3,65·109 | 3,46∙109 | 2,26∙109 | 3,40∙109 | 9,06∙108 | 1,79∙109 | 0,95 | 0,62 | 0,93 | 0,25 | 0,49 |
| 27 | 4,65·108 | 4,30∙108 | 1,89∙108 | 4,05∙108 | 1,20∙108 | 2,59∙108 | 0,92 | 0,41 | 0,87 | 0,26 | 0,56 |
| 28 | 1,03·1011 | 9,80∙1010 | 3,07∙109 | 1,85∙109 | 1,17∙109 | 1,07∙109 | 0,95 | 0,03 | 0,02 | 0,01 | 0,01 |
| 29 | 2,19·109 | 2,08∙109 | 1,09∙109 | 2,04∙109 | 6,15∙108 | 5,66∙108 | 0,95 | 0,5 | 0,93 | 0,28 | 0,26 |
| 30 | 2,10·107 | 1,95∙107 | 1,95∙107 | 1,92∙107 | 3,42∙106 | 1,11∙106 | 0,93 | 0,93 | 0,92 | 0,16 | 0,05 |
| 31 | 2,89·108 | 2,75∙108 | 2,41∙108 | 2,68∙108 | 8,47∙107 | 4,95∙107 | 0,95 | 0,83 | 0,93 | 0,29 | 0,17 |
| 32 | 3,26·107 | 3,08∙107 | 2,36∙107 | 2,91∙107 | 4,30∙106 | 6,27∙106 | 0,94 | 0,72 | 0,89 | 0,13 | 0,19 |
| 33 | 4,54·107 | 4,39∙107 | 3,60∙107 | 4,25∙107 | 2,25∙107 | 8,69∙106 | 0,97 | 0,79 | 0,93 | 0,49 | 0,19 |
| 34 | 9,14·108 | 8,67∙108 | 7,71∙108 | 7,88∙108 | 5,27∙107 | 2,10∙108 | 0,95 | 0,84 | 0,86 | 0,06 | 0,23 |
| 35 | 2,96·1010 | 2,77∙1010 | 1,46∙1010 | 2,60∙1010 | 8,86∙108 | 1,67∙109 | 0,94 | 0,49 | 0,88 | 0,03 | 0,06 |
| 36 | 4,29·108 | 3,94∙108 | 2,36∙108 | 3,16∙108 | 1,68∙108 | 3,32∙108 | 0,92 | 0,55 | 0,74 | 0,39 | 0,77 |
| 37 | 4,66·108 | 4,15∙108 | 1,93∙108 | 4,00∙108 | 3,22∙107 | 7,92∙107 | 0,89 | 0,41 | 0,86 | 0,07 | 0,17 |
| 40 | 8,56·108 | 8,01∙108 | 6,74∙108 | 6,67∙108 | 3,19∙108 | 7,56∙108 | 0,94 | 0,79 | 0,78 | 0,37 | 0,88 |
| 41 | 5,80·108 | 5,46∙108 | 5,46∙108 | 1,02∙108 | 6,09∙107 | 1,99∙108 | 0,94 | 0,94 | 0,18 | 0,11 | 0,34 |
| 45 | 2,52·1012 | 2,41∙1012 | 1,77∙1012 | 1,34∙1012 | 8,50∙1011 | 1,44∙1012 | 0,96 | 0,7 | 0,53 | 0,34 | 0,57 |
| 50 | 1,63·1010 | 1,53∙1010 | 7,88∙109 | 1,42∙1010 | 5,88∙109 | 7,14∙109 | 0,94 | 0,48 | 0,87 | 0,36 | 0,44 |
| 51 | 2,08∙1012 | 1,95∙1012 | 1,31∙1012 | 1,94∙1012 | 7,90∙1011 | 9,24∙1011 | 0,94 | 0,63 | 0,93 | 0,38 | 0,44 |
| 52 | 3,29∙1010 | 3,16∙1010 | 2,17∙1010 | 3,00∙1010 | 5,28∙109 | 1,36∙1010 | 0,96 | 0,66 | 0,91 | 0,16 | 0,41 |
| 55 | 2,71∙1010 | 2,58∙1010 | 1,80∙1010 | 2,55∙1010 | 1,35∙1010 | 1,56∙1010 | 0,95 | 0,66 | 0,94 | 0,5 | 0,58 |
| 60 | 5,49∙1010 | 5,22∙1010 | 5,20∙1010 | 5,11∙1010 | 5,37∙109 | 5,65∙109 | 0,95 | 0,95 | 0,93 | 0,1 | 0,1 |
| 61 | 1,79∙107 | 1,69∙107 | 1,43∙107 | 1,57∙107 | 1,25∙106 | 2,53∙106 | 0,94 | 0,8 | 0,88 | 0,07 | 0,14 |
| 62 | 2,04∙108 | 1,80∙108 | 1,06∙108 | 1,51∙108 | 8,80∙107 | 4,24∙103 | 0,88 | 0,52 | 0,74 | 0,43 | 0 |
| 63 | 3,07∙1010 | 2,79∙1010 | 1,75∙1010 | 2,64∙1010 | 7,50∙109 | 1,08∙1010 | 0,91 | 0,57 | 0,86 | 0,24 | 0,35 |
| 64 | 2,26∙109 | 2,13∙109 | 1,83∙109 | 1,96∙109 | 7,40∙108 | 1,19∙109 | 0,94 | 0,81 | 0,87 | 0,33 | 0,53 |
| 65 | 4,31∙1011 | 4,30∙1011 | 3,59∙1011 | 3,27∙1011 | 1,78∙1011 | 2,70∙1010 | 1 | 0,83 | 0,76 | 0,41 | 0,06 |
| 66 | 7,95∙108 | 7,95∙108 | 7,95∙108 | 7,64∙108 | 5,17∙108 | 5,31∙108 | 1 | 1 | 0,96 | 0,65 | 0,67 |
| 67 | 8,63∙109 | 8,61∙109 | 7,44∙109 | 6,60∙109 | 3,53∙109 | 1,28∙108 | 1 | 0,86 | 0,76 | 0,41 | 0,01 |
| 70 | 6,05∙1012 | 2,41∙1012 | 1,94∙1012 | 1,48∙1012 | 8,46∙1011 | 6,63∙1011 | 0,4 | 0,32 | 0,24 | 0,14 | 0,11 |
| 71 | 9,52∙1010 | 9,21∙1010 | 7,70∙1010 | 8,56∙1010 | 4,91∙1010 | 1,62∙1010 | 0,97 | 0,81 | 0,9 | 0,52 | 0,17 |
| 72 | 3,79∙108 | 3,57∙108 | 3,02∙108 | 3,47∙108 | 2,17∙108 | 1,01∙108 | 0,94 | 0,8 | 0,92 | 0,57 | 0,27 |
| 73 | 1,63∙109 | 1,55∙109 | 1,29∙109 | 1,13∙109 | 5,72∙108 | 4,14∙108 | 0,95 | 0,79 | 0,69 | 0,35 | 0,25 |
| 74 | 3,00∙1011 | 2,99∙1011 | 2,16∙1011 | 2,10∙1011 | 1,64∙1011 | 1,07∙1011 | 1 | 0,72 | 0,7 | 0,55 | 0,36 |
| 75 | 7,01∙1011 | 7,00∙1011 | 6,75∙1011 | 4,02∙1011 | 3,73∙1011 | 8,40∙1010 | 1 | 0,96 | 0,57 | 0,53 | 0,12 |
| 80 | 7,05∙1010 | 6,83∙1010 | 3,01∙1010 | 3,35∙108 | 4,23∙108 | 3,51∙108 | 0,97 | 0,43 | 0 | 0,01 | 0 |
| 85 | 5,11∙1010 | 4,33∙1010 | 4,07∙1010 | 3,84∙1010 | 2,07∙109 | 2,95∙109 | 0,85 | 0,8 | 0,75 | 0,04 | 0,06 |
| 90 | 6,32∙108 | 5,95∙108 | 5,95∙108 | 4,79∙108 | 1,01∙108 | 2,28∙108 | 0,94 | 0,94 | 0,76 | 0,16 | 0,36 |
| 91 | 1,69∙1011 | 1,69∙1011 | 1,19∙1011 | 1,69∙1011 | 2,03∙109 | 5,64∙108 | 1 | 0,7 | 1 | 0,01 | 0 |
| 92 | 1,35∙1010 | 3,85∙109 | 1,29∙109 | 1,92∙109 | 8,96∙108 | 2,22∙109 | 0,29 | 0,1 | 0,14 | 0,07 | 0,16 |
| 93 | 5,28∙109 | 4,27∙109 | 4,27∙109 | 2,88∙109 | 6,42∙108 | 9,47∙108 | 0,81 | 0,81 | 0,55 | 0,12 | 0,18 |
| Total | 1,33∙1013 | 9,33∙1012 | 6,82∙1012 | 6,61∙1012 | 3,36∙1012 | 3,50∙1012 | 0,7 | 0,51 | 0,5 | 0,25 | 0,26 |

(\*– division by zero )

Table D.8

**Design effect with various stratification schemes for GREG-Р estimator for the total amount of capital investments by institutional sectors of economy**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Variance of the total investments | | | | | | Design effect | | | | |
| at PVVbP | in stratification by | | | | | in stratification by | | | | |
| NACE division | NACE group | institutional  sectors of economy | regions | average employment | NACE division | NACE group | institutional  sectors of economy | regions | average employment |
| 0 | 5,76∙1010 | 2,75∙109 | 2,09∙109 | 5,67∙1010 | 2,76∙1010 | 2,77∙1010 | 0,05 | 0,04 | 0,98 | 0,48 | 0,48 |
| 11 | 1,47∙1011 | 1,79∙1010 | 5,48∙109 | 1,46∙1011 | 2,31∙1010 | 4,74∙1010 | 0,12 | 0,04 | 0,99 | 0,16 | 0,32 |
| 12 | 7,21∙1012 | 3,48∙1012 | 2,25∙1012 | 6,89∙1012 | 4,46∙1012 | 5,09∙1012 | 0,48 | 0,31 | 0,96 | 0,62 | 0,71 |
| 13 | 4,42∙1012 | 4,27∙1011 | 1,44∙1011 | 4,09∙1012 | 2,19∙1012 | 7,51∙1011 | 0,1 | 0,03 | 0,92 | 0,5 | 0,17 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | \* | \* | \* | \* | \* |
| 23 | 1,55∙1011 | 1,39∙1011 | 1,38∙1011 | 1,53∙1011 | 5,94∙1010 | 4,17∙109 | 0,9 | 0,89 | 0,99 | 0,38 | 0,03 |
| 24 | 1,92∙109 | 4,27∙107 | 4,27∙107 | 4,27∙107 | 4,27∙107 | 0 | 0,02 | 0,02 | 0,02 | 0,02 | 0 |
| 25 | 2,11∙108 | 4,04∙106 | 3,98∙106 | 7,09∙106 | 0 | 1,57∙106 | 0,02 | 0,02 | 0,03 | 0 | 0,01 |
| 27 | 2,85∙1011 | 2,60∙1011 | 2,58∙1011 | 2,66∙1011 | 7,53∙1010 | 3,86∙109 | 0,91 | 0,9 | 0,93 | 0,26 | 0,01 |
| 28 | 7,52∙109 | 4,55∙109 | 4,55∙109 | 5,12∙109 | 3,87∙109 | 4,58∙108 | 0,6 | 0,6 | 0,68 | 0,51 | 0,06 |
| 29 | 3,32∙104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31 | 1,96∙1010 | 8,40∙109 | 8,36∙109 | 1,95∙1010 | 5,55∙109 | 1,24∙108 | 0,43 | 0,43 | 0,99 | 0,28 | 0,01 |
| 32 | 1,01∙106 | 2,73∙105 | 2,73∙105 | 2,73∙105 | 2,05∙105 | 7,12∙104 | 0,27 | 0,27 | 0,27 | 0,2 | 0,07 |
| 33 | 0 | 0 | 0 | 0 | 0 | 0 | ∙ | ∙ | ∙ | ∙ | ∙ |
| 35 | 7,91∙108 | 4,87∙108 | 4,87∙108 | 7,91∙108 | 5,10∙108 | 4,62∙108 | 0,62 | 0,62 | 1 | 0,65 | 0,58 |
| 36 | 3,99∙106 | 8,66∙105 | 8,66∙105 | 2,42∙106 | 2,23∙106 | 2,31∙105 | 0,22 | 0,22 | 0,61 | 0,56 | 0,06 |
| 37 | 6,61∙1011 | 4,98∙1011 | 4,60∙1011 | 6,61∙1011 | 2,85∙1011 | 1,43∙1011 | 0,75 | 0,7 | 1 | 0,43 | 0,22 |
| 41 | 1,26∙1011 | 3,58∙1010 | 3,36∙1010 | 1,25∙1011 | 5,93∙1010 | 2,06∙1010 | 0,28 | 0,27 | 0,99 | 0,47 | 0,16 |
| 42 | 2,21∙107 | 2,21∙107 | 2,21∙107 | 2,21∙107 | 8,69∙105 | 9,94∙106 | 1 | 1 | 1 | 0,04 | 0,45 |
| 43 | 1,95∙1011 | 1,72∙1011 | 1,27∙1011 | 1,95∙1011 | 1,18∙1010 | 5,53∙109 | 0,88 | 0,65 | 1 | 0,06 | 0,03 |
| 60 | 1,04∙106 | 0 | 0 | 0 | 0 | 0 | ∙ | ∙ | ∙ | ∙ | ∙ |
| 99 | 5,76∙1010 | 0 | 2,09∙109 | 5,67∙1010 | 2,76∙1010 | 2,77∙1010 | ∙ | 0,04 | 0,98 | 0,48 | 0,48 |
| Total | 1,33∙1013 | 5,05∙1012 | 3,43∙1012 | 1,27∙1013 | 7,23∙1012 | 6,12∙1012 | 0,38 | 0,26 | 0,95 | 0,54 | 0,46 |

Table D.9

**Design effect with various stratification schemes for GREG-Р estimator for the total amount of capital investments by regions**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE code | Variance of the total investments | | | | | | Design effect | | | | |
| at PVVbP | in stratification by | | | | | in stratification by | | | | |
| NACE division | NACE group | institutional  sectors of economy | regions | average employment | NACE division | NACE group | institutional  sectors of economy | regions | average employment |
| 1 | 1,41∙1012 | 7,15∙1010 | 4,07∙1010 | 8,04∙1010 | 7,90∙1011 | 9,52∙1010 | 0,05 | 0,03 | 0,06 | 0,56 | 0,07 |
| 5 | 4,01∙1010 | 5,98∙109 | 3,84∙109 | 1,82∙1010 | 3,97∙1010 | 5,71∙109 | 0,15 | 0,1 | 0,45 | 0,99 | 0,14 |
| 7 | 1,39∙1010 | 2,55∙109 | 1,29∙109 | 4,06∙109 | 1,18∙1010 | 2,68∙109 | 0,18 | 0,09 | 0,29 | 0,85 | 0,19 |
| 12 | 4,12∙1011 | 3,87∙1010 | 2,22∙1010 | 3,04∙1011 | 3,25∙1011 | 1,06∙1011 | 0,09 | 0,05 | 0,74 | 0,79 | 0,26 |
| 14 | 2,29∙1011 | 3,04∙1010 | 1,19∙1010 | 6,49∙1010 | 2,26∙1011 | 2,46∙1010 | 0,13 | 0,05 | 0,28 | 0,99 | 0,11 |
| 18 | 7,95∙1010 | 4,72∙109 | 1,99∙109 | 2,25∙1010 | 3,07∙1010 | 6,06∙109 | 0,06 | 0,03 | 0,28 | 0,39 | 0,08 |
| 21 | 5,33∙1010 | 3,23∙109 | 1,76∙109 | 1,97∙1010 | 2,95∙1010 | 6,85∙109 | 0,06 | 0,03 | 0,37 | 0,55 | 0,13 |
| 23 | 4,39∙1010 | 6,74∙109 | 3,86∙109 | 1,89∙1010 | 4,32∙1010 | 7,67∙109 | 0,15 | 0,09 | 0,43 | 0,98 | 0,17 |
| 26 | 6,61∙1010 | 9,48∙109 | 4,27∙109 | 2,88∙1010 | 5,88∙1010 | 1,87∙1010 | 0,14 | 0,06 | 0,44 | 0,89 | 0,28 |
| 32 | 4,39∙1011 | 1,52∙1010 | 7,74∙109 | 1,70∙1011 | 1,99∙1011 | 1,28∙1011 | 0,03 | 0,02 | 0,39 | 0,45 | 0,29 |
| 35 | 7,11∙1010 | 6,90∙109 | 2,94∙109 | 2,34∙1010 | 7,10∙1010 | 8,77∙109 | 0,1 | 0,04 | 0,33 | 1 | 0,12 |
| 44 | 1,59∙1011 | 1,09∙1010 | 3,45∙109 | 3,11∙1010 | 1,17∙1011 | 1,58∙1010 | 0,07 | 0,02 | 0,2 | 0,74 | 0,1 |
| 46 | 7,94∙1011 | 6,77∙1010 | 3,64∙1010 | 9,77∙1010 | 5,16∙1011 | 5,25∙1010 | 0,09 | 0,05 | 0,12 | 0,65 | 0,07 |
| 48 | 8,61∙1010 | 7,50∙109 | 3,03∙109 | 3,92∙1010 | 7,57∙1010 | 6,85∙109 | 0,09 | 0,04 | 0,46 | 0,88 | 0,08 |
| 51 | 1,09∙1012 | 1,28∙1011 | 5,11∙1010 | 6,22∙1011 | 9,84∙1011 | 2,55∙1011 | 0,12 | 0,05 | 0,57 | 0,9 | 0,23 |
| 53 | 7,94∙1010 | 1,53∙1010 | 5,12∙109 | 3,91∙1010 | 7,71∙1010 | 7,57∙109 | 0,19 | 0,06 | 0,49 | 0,97 | 0,1 |
| 56 | 6,96∙1010 | 5,85∙109 | 2,37∙109 | 2,16∙1010 | 6,92∙1010 | 8,68∙109 | 0,08 | 0,03 | 0,31 | 0,99 | 0,12 |
| 59 | 1,58∙1010 | 2,69∙109 | 1,35∙109 | 7,40∙109 | 1,57∙1010 | 1,27∙109 | 0,17 | 0,09 | 0,47 | 1 | 0,08 |
| 61 | 1,30∙1010 | 2,22∙109 | 1,28∙109 | 4,59∙109 | 9,41∙109 | 2,47∙109 | 0,17 | 0,1 | 0,35 | 0,72 | 0,19 |
| 63 | 3,81∙1011 | 6,87∙1010 | 3,28∙1010 | 1,46∙1011 | 3,81∙1011 | 8,90∙1010 | 0,18 | 0,09 | 0,38 | 1 | 0,23 |
| 65 | 2,08∙1010 | 5,98∙109 | 2,88∙109 | 1,05∙1010 | 1,94∙1010 | 5,46∙109 | 0,29 | 0,14 | 0,5 | 0,93 | 0,26 |
| 68 | 1,50∙1010 | 2,16∙109 | 1,24∙109 | 7,01∙109 | 8,31∙109 | 3,83∙109 | 0,14 | 0,08 | 0,47 | 0,56 | 0,26 |
| 71 | 2,97∙1010 | 5,40∙109 | 2,67∙109 | 6,92∙109 | 2,95∙1010 | 2,50∙109 | 0,18 | 0,09 | 0,23 | 0,99 | 0,08 |
| 73 | 1,58∙1011 | 7,07∙109 | 3,66∙109 | 1,08∙1010 | 1,10∙1011 | 4,76∙109 | 0,04 | 0,02 | 0,07 | 0,7 | 0,03 |
| 74 | 9,72∙109 | 1,61∙109 | 7,42∙108 | 3,75∙109 | 6,51∙109 | 1,21∙109 | 0,17 | 0,08 | 0,39 | 0,67 | 0,12 |
| 80 | 7,37∙1012 | 2,42∙1012 | 1,32∙1012 | 5,18∙1012 | 6,76∙1012 | 2,61∙1012 | 0,33 | 0,18 | 0,7 | 0,92 | 0,35 |
| 85 | 1,57∙1011 | 5,09∙109 | 1,75∙109 | 4,89∙1010 | 1,49∙1011 | 6,13∙109 | 0,03 | 0,01 | 0,31 | 0,95 | 0,04 |
| Total | 1,33∙1013 | 2,95∙1012 | 1,57∙1012 | 7,03∙1012 | 1,12∙1013 | 3,48∙1012 | 0,22 | 0,12 | 0,53 | 0,84 | 0,26 |

Annex E

Table E.1

**Group stratification by NACE**

|  |  |
| --- | --- |
| **Nace division** | **Name** |
| 01 | Agriculture, hunting and associated services |
| 02 | Forestry and support activities |
| 05 | Fishing, fishery and support activities |
| 10 | Extraction of coal, lignite and peat |
| 11 | Mining of hydrocarbons and support activities |
| 12 | Mining of uranium and thorium ores |
| 13 | Mining of metal ores |
| 14 | Other branches of the mining industry |
| 15 | Manufacture of food and beverages |
| 16 | Manufacture of tobacco products |
| 17 | Textile production |
| 18 | Manufacture of clothing; manufacture of fur and articles of fur |
| 19 | Manufacture of leather, articles of leather and other materials |
| 20 | Wood processing and manufacture of wood products, except furniture |
| 21 | Manufacture of paper pulp, paper, paperboard and paper products |
| 22 | Publishing and printing, reproduction of recorded media |
| 23 | Manufacture of coking coal, food products and nuclear materials |
| 24 | Chemical production |
| 25 | Manufacture of rubber and plastic products |
| 26 | Manufacture of other non-metallic mineral products |
| 27 | Metallurgy |
| 28 | Manufacture of finished metal products |
| 29 | Manufacture of machinery and equipment |
| 30 | Manufacture of office equipment and computing technology |
| 31 | Manufacture of electric machines and equipment |
| 32 | Manufacture of devices for radio, television and communication |
| 33 | Manufacture of medicinal equipment, measuring, optical devices and instruments, watches and clocks |
| 34 | Manufacture of automobiles, trailers and semitrailers |
| 35 | Manufacture of other transport vehicles |
| 36 | Manufacture of furniture, manufacture of other products |
| 37 | Waste processing |
| 40 | Manufacture and supply of electricity, gas, steam and hot water |
| 41 | Water collection, treatment and supply |
| 45 | Construction |
| 50 | Trade in motor vehicles and motorcycles, their maintenance and repair |
| 51 | Wholesale trade and intermediation in wholesale trade |
| 52 | Retail trade, repair of household products and objects of personal use |
| 55 | Hotels and restaurants |
| 60 | Land transport |
| 61 | Water transport |
| 62 | Air transport |
| 63 | Supplementary transport services and support activities |
| 64 | Postal and communication activities |
| 65 | Monetary and financial intermediation |
| 66 | Insurance |
| 67 | Auxiliary services in financial intermediation and insurance |
| 70 | Retail estate activities |
| 71 | Renting of cars and equipment; renting of household goods and objects |
| 72 | Information and communication |
| 73 | Scientific research and development |
| 74 | Legal, accounting and engineering activities; business activities |
| 75 | Public administration |
| 80 | Education |
| 85 | Healthcare and social security |
| 90 | Sanitary services, cleaning and disposal of waste |
| 91 | Civil society organisations’ activity |
| 92 | Culture, sports, recreation and entertainment |
| 93 | Individual services |

**Annex** **F**

Table F.1

**Main generalising indicators of enterprises on capital investments by economic activities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NACE code | Number of enterprises, units | Average capital investments, UAH thousand | Mean square deviation, UAH thousand | Coefficient of variation |
| 1 | 3023 | 892,2 | 10311,0 | 11,6 |
| 2 | 84 | 46,3 | 72,9 | 1,6 |
| 5 | 54 | 359,8 | 823,1 | 2,3 |
| 10 | 31 | 1004,0 | 3486,5 | 3,5 |
| 11 | 13 | 53215,3 | 175411,1 | 3,3 |
| 13 | 4 | 23745,0 | 44566,8 | 1,9 |
| 14 | 137 | 877,2 | 2623,1 | 3,0 |
| 15 | 715 | 912,1 | 4246,9 | 4,7 |
| 16 | 1 | 442,0 | – | – |
| 17 | 52 | 248,5 | 459,1 | 1,8 |
| 18 | 90 | 570,1 | 3944,5 | 6,9 |
| 19 | 25 | 296,1 | 508,4 | 1,7 |
| 20 | 227 | 619,4 | 5580,7 | 9,0 |
| 21 | 61 | 2249,9 | 16017,2 | 7,1 |
| 22 | 293 | 794,2 | 11151,0 | 14,0 |
| 23 | 21 | 707,5 | 1636,2 | 2,3 |
| 24 | 189 | 799,9 | 3517,1 | 4,4 |
| 25 | 237 | 374,0 | 2037,4 | 5,4 |
| 26 | 359 | 419,3 | 1196,6 | 2,9 |
| 27 | 76 | 582,6 | 1085,8 | 1,9 |
| 28 | 326 | 754,3 | 8903,9 | 11,8 |
| 29 | 458 | 316,5 | 1670,3 | 5,3 |
| 30 | 28 | 1046,6 | 3227,3 | 3,1 |
| 31 | 180 | 218,2 | 634,2 | 2,9 |
| 32 | 35 | 276,7 | 1197,4 | 4,3 |
| 33 | 112 | 97,5 | 235,9 | 2,4 |
| 34 | 32 | 3085,6 | 11386,9 | 3,7 |
| 35 | 61 | 186,1 | 397,5 | 2,1 |
| 36 | 171 | 275,2 | 905,1 | 3,3 |
| 37 | 77 | 200,0 | 369,2 | 1,8 |
| 40 | 171 | 9682,9 | 85005,6 | 8,8 |
| 41 | 175 | 133,2 | 575,0 | 4,3 |
| 45 | 2413 | 1761,6 | 19903,2 | 11,3 |
| 50 | 767 | 414,3 | 1287,0 | 3,1 |
| 51 | 4727 | 630,5 | 7048,6 | 11,2 |
| 52 | 1454 | 812,6 | 12758,2 | 15,7 |
| 55 | 420 | 578,3 | 2290,4 | 4,0 |
| 60 | 476 | 526,2 | 2620,2 | 5,0 |
| 61 | 17 | 255,8 | 409,2 | 1,6 |
| 62 | 6 | 47,8 | 61,0 | 1,3 |
| 63 | 629 | 765,1 | 3475,1 | 4,5 |
| 64 | 216 | 583,1 | 2403,6 | 4,1 |
| 65 | 197 | 1861,9 | 18185,0 | 9,8 |
| 66 | 38 | 286,2 | 526,9 | 1,8 |
| 67 | 78 | 1265,9 | 6073,4 | 4,8 |
| 70 | 1802 | 1798,4 | 18959,5 | 10,5 |
| 71 | 138 | 1693,2 | 5593,4 | 3,3 |
| 72 | 240 | 113,1 | 249,0 | 2,2 |
| 73 | 151 | 334,5 | 1634,2 | 4,9 |
| 74 | 1362 | 477,0 | 3622,7 | 7,6 |
| 75 | 82 | 823,3 | 3337,4 | 4,1 |
| 80 | 167 | 212,4 | 914,1 | 4,3 |
| 85 | 273 | 537,2 | 2170,2 | 4,0 |
| 90 | 137 | 192,4 | 396,5 | 2,1 |
| 91 | 27 | 156,1 | 264,3 | 1,7 |
| 92 | 330 | 1404,6 | 15636,3 | 11,1 |
| 93 | 117 | 398,8 | 2506,5 | 6,3 |
| Total on the population | 23782 | 966,2 | 13532,9 | 14,0∙ |

Table F.2

**Main generalising indicators of enterprises on capital investments by institutional sectors of economy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CISE code | Number of enterprises, units | Average, UAH thousand | Mean square deviation, UAH thousand | Coefficient of variation |
| 0 | 369 | 3993,9 | 37734,4 | 9,4 |
| 11 | 1224 | 1473,3 | 31531,4 | 21,4 |
| 12 | 21012 | 748,1 | 8254,5 | 11,0 |
| 13 | 681 | 5064,7 | 40213,2 | 7,9 |
| 24 | 7 | 6281,1 | 8901,2 | 1,4 |
| 25 | 1 | 1201,0 | – | – |
| 27 | 5 | 41,6 | 63,7 | 1,5 |
| 28 | 158 | 1958,4 | 20226,0 | 10,3 |
| 29 | 4 | 7058,5 | 6954,5 | 1,0 |
| 31 | 1 | 9,0 | – | – |
| 32 | 60 | 829,9 | 5885,3 | 7,1 |
| 33 | 5 | 261,4 | 176,5 | 0,7 |
| 36 | 36 | 285,5 | 533,0 | 1,9 |
| 37 | 2 | 374,0 | 483,7 | 1,3 |
| 41 | 45 | 396,2 | 1294,5 | 3,3 |
| 42 | 72 | 340,8 | 1487,9 | 4,4 |
| 60 | 100 | 468,9 | 1471,1 | 3,1 |
| Total on the population | 23782 | 966,2 | 13532,9 | 14,0∙ |

Table F.3

**Main generalising indicators of enterprises on capital investments by regions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| COATSU code | Number of enterprises, units | Average, UAH thousand | Mean square deviation, UAH thousand | Coefficient of variation |
| 1 | 2122 | 749,0 | 12610,5 | 16,8 |
| 5 | 1084 | 365,8 | 1767,5 | 4,8 |
| 7 | 612 | 400,3 | 2180,8 | 5,4 |
| 12 | 591 | 954,0 | 7194,2 | 7,5 |
| 14 | 559 | 1279,8 | 7249,4 | 5,7 |
| 18 | 862 | 554,4 | 4873,4 | 8,8 |
| 21 | 390 | 525,6 | 2523,5 | 4,8 |
| 23 | 1296 | 744,9 | 9796,8 | 13,2 |
| 26 | 537 | 314,2 | 2377,2 | 7,6 |
| 32 | 830 | 3795,4 | 42037,9 | 11,1 |
| 35 | 831 | 745,1 | 11937,2 | 16,0 |
| 44 | 929 | 490,4 | 5522,5 | 11,3 |
| 46 | 1068 | 1130,7 | 13095,4 | 11,6 |
| 48 | 312 | 378,3 | 1684,1 | 4,5 |
| 51 | 691 | 884,6 | 8501,0 | 9,6 |
| 53 | 1383 | 593,9 | 4242,1 | 7,1 |
| 56 | 776 | 505,5 | 3143,3 | 6,2 |
| 59 | 571 | 269,6 | 1872,9 | 6,9 |
| 61 | 522 | 565,0 | 2107,1 | 3,7 |
| 63 | 2345 | 959,9 | 15104,4 | 15,7 |
| 65 | 974 | 318,2 | 1514,0 | 4,8 |
| 68 | 981 | 447,5 | 2072,1 | 4,6 |
| 71 | 556 | 496,8 | 2345,5 | 4,7 |
| 73 | 587 | 389,2 | 2066,6 | 5,3 |
| 74 | 621 | 301,6 | 1389,9 | 4,6 |
| 80 | 1675 | 3597,8 | 28343,7 | 7,9 |
| 85 | 77 | 1417,9 | 7896,7 | 5,6 |
| Total on the population | 23782 | 966,2 | 13532,9 | 14,0∙ |

Annex G

Table G.1

**Share of the general population enterprises by economic activities**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NACE code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 1 | 40588 | 91,40 | 8,60 | 21,41 | 78,59 |
| 2 | 902 | 60,64 | 39,36 | 4,76 | 95,24 |
| 5 | 902 | 93,90 | 6,10 | 10,15 | 89,85 |
| 10 | 385 | 65,45 | 34,55 | 0,34 | 99,66 |
| 11 | 147 | 82,31 | 17,69 | 6,66 | 93,34 |
| 12 | 1 | 0,00 | 100,00 | 0,00 | 100,00 |
| 13 | 38 | 50,00 | 50,00 | 0,16 | 99,84 |
| 14 | 1226 | 83,12 | 16,88 | 11,27 | 88,73 |
| 15 | 6772 | 79,34 | 20,66 | 7,96 | 92,04 |
| 16 | 15 | 60,00 | 40,00 | 0,78 | 99,22 |
| 17 | 819 | 87,91 | 12,09 | 10,00 | 90,00 |
| 18 | 2181 | 89,41 | 10,59 | 35,72 | 64,28 |
| 19 | 478 | 81,80 | 18,20 | 5,23 | 94,77 |
| 20 | 3308 | 95,22 | 4,78 | 15,88 | 84,12 |
| 21 | 590 | 79,49 | 20,51 | 4,06 | 95,94 |
| 22 | 6436 | 96,72 | 3,28 | 21,95 | 78,05 |
| 23 | 189 | 82,54 | 17,46 | 2,70 | 97,30 |
| 24 | 1695 | 85,01 | 14,99 | 2,96 | 97,04 |
| 25 | 2325 | 89,03 | 10,97 | 21,97 | 78,03 |
| 26 | 3512 | 85,22 | 14,78 | 4,27 | 95,73 |
| 27 | 530 | 67,92 | 32,08 | 0,69 | 99,31 |
| 28 | 3564 | 89,90 | 10,10 | 22,98 | 77,02 |
| 29 | 4906 | 86,73 | 13,27 | 5,02 | 94,98 |
| 30 | 422 | 94,79 | 5,21 | 19,98 | 80,02 |
| 31 | 2108 | 88,19 | 11,81 | 5,44 | 94,56 |
| 32 | 636 | 92,45 | 7,55 | 3,02 | 96,98 |
| 33 | 1432 | 92,04 | 7,96 | 6,86 | 93,14 |
| 34 | 312 | 77,24 | 22,76 | 12,92 | 87,08 |
| 35 | 793 | 81,08 | 18,92 | 11,74 | 88,26 |
| 36 | 2429 | 91,15 | 8,85 | 18,32 | 81,68 |
| 37 | 1000 | 93,70 | 6,30 | 33,31 | 66,69 |
| 40 | 1267 | 67,56 | 32,44 | 1,53 | 98,47 |
| 41 | 1581 | 85,26 | 14,74 | 7,71 | 92,29 |
| 45 | 36922 | 95,26 | 4,74 | 45,16 | 54,84 |
| 50 | 9330 | 94,67 | 5,33 | 19,36 | 80,64 |
| 51 | 82700 | 96,17 | 3,83 | 30,59 | 69,41 |
| 52 | 22264 | 95,10 | 4,90 | 11,15 | 88,85 |
| 55 | 10061 | 95,35 | 4,65 | 40,52 | 59,48 |
| 60 | 6892 | 89,99 | 10,01 | 12,34 | 87,66 |
| 61 | 177 | 85,88 | 14,12 | 13,15 | 86,85 |
| 62 | 150 | 78,00 | 22,00 | 1,55 | 98,45 |
| 63 | 10184 | 94,04 | 5,96 | 5,53 | 94,47 |
| 64 | 2107 | 94,02 | 5,98 | 1,39 | 98,61 |
| 65 | 3016 | 92,27 | 7,73 | 21,08 | 78,92 |
| 66 | 527 | 79,89 | 20,11 | 30,21 | 69,79 |
| 67 | 2181 | 95,09 | 4,91 | 88,24 | 11,76 |
| 70 | 58517 | 97,70 | 2,30 | 48,46 | 51,54 |
| 71 | 2316 | 98,06 | 1,94 | 54,12 | 45,88 |
| 72 | 6185 | 98,06 | 1,94 | 27,49 | 72,51 |
| 73 | 4539 | 86,08 | 13,92 | 18,52 | 81,48 |
| 74 | 38808 | 96,77 | 3,23 | 30,43 | 69,57 |
| 75 | 47206 | 93,02 | 6,98 | 47,72 | 52,28 |
| 80 | 40535 | 91,05 | 8,95 | 13,67 | 86,33 |
| 85 | 26764 | 84,65 | 15,35 | 18,74 | 81,26 |
| 90 | 1666 | 80,43 | 19,57 | 26,31 | 73,69 |
| 91 | 136632 | 99,91 | 0,09 | 92,30 | 7,70 |
| 92 | 13317 | 93,57 | 6,43 | 11,57 | 88,43 |
| 93 | 3622 | 97,74 | 2,26 | 77,81 | 22,19 |
| Total on the population | 660107 | 94,68 | 5,32 | 21,15 | 78,85 |

Table G.2

**Share of the general population enterprises by institutional sectors of economy**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CISE code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 0 | 692 | 58,82 | 41,18 | 21,18 | 78,82 |
| 11 | 13490 | 72,88 | 27,12 | 4,87 | 95,13 |
| 12 | 346820 | 94,81 | 5,19 | 21,84 | 78,16 |
| 13 | 10542 | 89,04 | 10,96 | 19,52 | 80,48 |
| 21 | 1 | 0,00 | 100,00 | – | – |
| 23 | 3 | 33,33 | 66,67 | 0,40 | 99,60 |
| 24 | 345 | 61,45 | 38,55 | 13,51 | 86,49 |
| 25 | 25 | 44,00 | 56,00 | 5,32 | 94,68 |
| 27 | 87 | 94,25 | 5,75 | 90,15 | 9,85 |
| 28 | 2398 | 97,08 | 2,92 | 79,88 | 20,12 |
| 29 | 178 | 93,82 | 6,18 | 60,19 | 39,81 |
| 31 | 9 | 88,89 | 11,11 | 47,28 | 52,72 |
| 32 | 1941 | 95,36 | 4,64 | 85,99 | 14,01 |
| 33 | 129 | 88,37 | 11,63 | 23,76 | 76,24 |
| 35 | 12 | 83,33 | 16,67 | – | – |
| 36 | 710 | 86,34 | 13,66 | 31,70 | 68,30 |
| 37 | 43 | 86,05 | 13,95 | 20,40 | 79,60 |
| 41 | 21531 | 78,63 | 21,37 | 37,73 | 62,27 |
| 42 | 79641 | 91,79 | 8,21 | 39,15 | 60,85 |
| 43 | 979 | 83,55 | 16,45 | 29,65 | 70,35 |
| 60 | 180527 | 99,84 | 0,16 | 76,44 | 23,56 |
| 99 | 4 | 100,00 | 0,00 | 100,00 | 0,00 |
| Total on the population | 660107 | 94,68 | 5,32 | 21,15 | 78,85 |

(«-» enterprises have zero investment indicator)

Table G.3

**Share of the general population enterprises by regions**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| USREOU region code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 1 | 27138 | 95,04 | 4,96 | 38,25 | 61,75 |
| 5 | 17795 | 93,89 | 6,11 | 25,41 | 74,59 |
| 7 | 12870 | 94,46 | 5,54 | 16,01 | 83,99 |
| 12 | 44416 | 94,17 | 5,83 | 16,85 | 83,15 |
| 14 | 48182 | 94,20 | 5,80 | 9,05 | 90,95 |
| 18 | 15191 | 94,21 | 5,79 | 31,71 | 68,29 |
| 21 | 13400 | 95,27 | 4,73 | 40,15 | 59,85 |
| 23 | 24537 | 94,82 | 5,18 | 15,15 | 84,85 |
| 26 | 16428 | 95,73 | 4,27 | 28,71 | 71,29 |
| 32 | 28428 | 94,66 | 5,34 | 18,44 | 81,56 |
| 35 | 13275 | 94,58 | 5,42 | 26,71 | 73,29 |
| 44 | 21616 | 92,65 | 7,35 | 19,44 | 80,56 |
| 46 | 38163 | 95,42 | 4,58 | 28,41 | 71,59 |
| 48 | 18159 | 95,61 | 4,39 | 19,85 | 80,15 |
| 51 | 37783 | 95,11 | 4,89 | 25,68 | 74,32 |
| 53 | 20317 | 94,19 | 5,81 | 16,70 | 83,30 |
| 56 | 12575 | 94,07 | 5,93 | 30,20 | 69,80 |
| 59 | 12341 | 93,71 | 6,29 | 16,85 | 83,15 |
| 61 | 12950 | 94,93 | 5,07 | 32,81 | 67,19 |
| 63 | 40386 | 94,80 | 5,20 | 23,72 | 76,28 |
| 65 | 13725 | 94,83 | 5,17 | 30,22 | 69,78 |
| 68 | 15615 | 94,31 | 5,69 | 17,17 | 82,83 |
| 71 | 16444 | 94,24 | 5,76 | 24,26 | 75,74 |
| 73 | 11261 | 96,01 | 3,99 | 39,16 | 60,84 |
| 74 | 12548 | 93,29 | 6,71 | 22,17 | 77,83 |
| 80 | 107109 | 95,09 | 4,91 | 19,48 | 80,52 |
| 85 | 7455 | 95,35 | 4,65 | 45,71 | 54,29 |
| Total on the population | 660107 | 94,68 | 5,32 | 21,15 | 78,85 |

Table G.4

**Share of the general population enterprises by institutional sectors of economy**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CISE code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 0 | 343 | 61,1 | 38,9 | 30,8 | 69,2 |
| 11 | 9 611 | 72,6 | 27,4 | 4,7 | 95,3 |
| 12 | 314 019 | 94,6 | 5,4 | 21,8 | 78,2 |
| 13 | 8 814 | 88,4 | 11,6 | 19,5 | 80,5 |
| 23 | 1 | 100,0 | 0,0 | 100,0 | 0,0 |
| 24 | 1 | 50,0 | 50,0 | 4,5 | 95,5 |
| 27 | 3 | 100,0 | 0,0 | 100,0 | 0,0 |
| 28 | 17 | 77,3 | 22,7 | 85,4 | 14,6 |
| 29 | 3 | 100,0 | 0,0 | 100,0 | 0,0 |
| 32 | 8 | 80,0 | 20,0 | 3,6 | 96,4 |
| 33 | 1 | 33,3 | 66,7 | 28,9 | 71,1 |
| 37 | 1 | 100,0 | 0,0 | 100,0 | 0,0 |
| 41 | 12 | 44,4 | 55,6 | 2,4 | 97,6 |
| 42 | 6 | 33,3 | 66,7 | 86,2 | 13,8 |
| 60 | 37 | 45,1 | 54,9 | 11,8 | 88,2 |
| Total on the population | 332 877 | 93,52 | 6,48 | 19,61 | 80,39 |

Table G.5

**Share of non-financial enterprises by regions**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| USREOU region code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 1 | 12 884 | 93,6 | 6,4 | 38,2 | 61,8 |
| 5 | 6 875 | 90,7 | 9,3 | 21,0 | 79,0 |
| 7 | 4 434 | 91,1 | 8,9 | 13,0 | 87,0 |
| 12 | 24 002 | 93,4 | 6,6 | 16,4 | 83,6 |
| 14 | 24 810 | 93,2 | 6,8 | 7,7 | 92,3 |
| 18 | 5 562 | 90,7 | 9,3 | 34,0 | 66,0 |
| 21 | 4 596 | 92,5 | 7,5 | 39,3 | 60,7 |
| 23 | 12 720 | 93,8 | 6,2 | 13,5 | 86,5 |
| 26 | 7 143 | 94,9 | 5,1 | 26,2 | 73,8 |
| 32 | 13 453 | 92,1 | 7,9 | 17,9 | 82,1 |
| 35 | 5 702 | 92,9 | 7,1 | 20,7 | 79,3 |
| 44 | 9 550 | 92,0 | 8,0 | 16,2 | 83,8 |
| 46 | 19 005 | 94,4 | 5,6 | 28,1 | 71,9 |
| 48 | 8 821 | 94,5 | 5,5 | 17,4 | 82,6 |
| 51 | 21 514 | 94,3 | 5,7 | 23,4 | 76,6 |
| 53 | 8 161 | 91,4 | 8,6 | 13,9 | 86,1 |
| 56 | 4 516 | 91,7 | 8,3 | 24,7 | 75,3 |
| 59 | 4 604 | 90,5 | 9,5 | 16,6 | 83,4 |
| 61 | 4 155 | 91,9 | 8,1 | 31,0 | 69,0 |
| 63 | 23 296 | 94,5 | 5,5 | 22,1 | 77,9 |
| 65 | 5 875 | 93,1 | 6,9 | 26,6 | 73,4 |
| 68 | 5 505 | 91,2 | 8,8 | 15,4 | 84,6 |
| 71 | 6 305 | 90,8 | 9,2 | 21,6 | 78,4 |
| 73 | 4 686 | 94,7 | 5,3 | 23,7 | 76,3 |
| 74 | 4 613 | 90,0 | 10,0 | 21,6 | 78,4 |
| 80 | 76 504 | 95,0 | 5,0 | 19,4 | 80,6 |
| 85 | 3 586 | 94,4 | 5,6 | 39,8 | 60,2 |
| Total on the population | 332 877 | 93,52 | 6,48 | 19,61 | 80,39 |

Table G.6

**Share of non-financial enterprises by economic activities**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NACE code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 1 | 35 043 | 90,9 | 9,1 | 21,3 | 78,7 |
| 2 | 523 | 59,6 | 40,4 | 4,8 | 95,2 |
| 5 | 809 | 93,7 | 6,3 | 10,1 | 89,9 |
| 10 | 226 | 63,0 | 37,0 | 0,3 | 99,7 |
| 11 | 114 | 81,4 | 18,6 | 6,7 | 93,3 |
| 12 | 0 | 0,0 | 100,0 | 0,0 | 100,0 |
| 13 | 16 | 45,7 | 54,3 | 0,2 | 99,8 |
| 14 | 976 | 82,5 | 17,5 | 11,3 | 88,7 |
| 15 | 5 115 | 78,5 | 21,5 | 7,8 | 92,2 |
| 16 | 7 | 53,8 | 46,2 | 0,8 | 99,2 |
| 17 | 695 | 87,5 | 12,5 | 10,0 | 90,0 |
| 18 | 1 895 | 89,1 | 10,9 | 35,7 | 64,3 |
| 19 | 367 | 80,8 | 19,2 | 5,2 | 94,8 |
| 20 | 3 025 | 95,0 | 5,0 | 15,9 | 84,1 |
| 21 | 443 | 78,5 | 21,5 | 3,9 | 96,1 |
| 22 | 6 028 | 96,6 | 3,4 | 21,9 | 78,1 |
| 23 | 141 | 81,0 | 19,0 | 2,7 | 97,3 |
| 24 | 1 367 | 84,3 | 15,7 | 2,9 | 97,1 |
| 25 | 1 993 | 88,7 | 11,3 | 22,0 | 78,0 |
| 26 | 2 867 | 84,7 | 15,3 | 4,3 | 95,7 |
| 27 | 338 | 66,5 | 33,5 | 0,7 | 99,3 |
| 28 | 3 088 | 89,6 | 10,4 | 23,0 | 77,0 |
| 29 | 4 072 | 86,2 | 13,8 | 5,0 | 95,0 |
| 30 | 378 | 94,5 | 5,5 | 20,0 | 80,0 |
| 31 | 1 784 | 87,8 | 12,2 | 5,4 | 94,6 |
| 32 | 561 | 92,1 | 7,9 | 3,0 | 97,0 |
| 33 | 1 282 | 91,8 | 8,2 | 6,9 | 93,1 |
| 34 | 231 | 76,5 | 23,5 | 12,9 | 87,1 |
| 35 | 610 | 80,3 | 19,7 | 11,7 | 88,3 |
| 36 | 2 132 | 90,8 | 9,2 | 17,1 | 82,9 |
| 37 | 849 | 93,1 | 6,9 | 33,2 | 66,8 |
| 40 | 807 | 66,3 | 33,7 | 1,5 | 98,5 |
| 41 | 1 285 | 84,7 | 15,3 | 7,7 | 92,3 |
| 45 | 33 801 | 95,1 | 4,9 | 45,1 | 54,9 |
| 50 | 8 398 | 94,4 | 5,6 | 19,4 | 80,6 |
| 51 | 74 785 | 95,9 | 4,1 | 30,5 | 69,5 |
| 52 | 20 507 | 94,9 | 5,1 | 11,1 | 88,9 |
| 55 | 9 236 | 95,2 | 4,8 | 40,5 | 59,5 |
| 60 | 5 952 | 89,6 | 10,4 | 12,3 | 87,7 |
| 61 | 145 | 85,3 | 14,7 | 13,1 | 86,9 |
| 62 | 106 | 76,3 | 23,7 | 1,6 | 98,4 |
| 63 | 8 880 | 93,6 | 6,4 | 5,5 | 94,5 |
| 64 | 1 892 | 93,8 | 6,2 | 1,4 | 98,6 |
| 65 | 4 | 100,0 | 0,0 | – | – |
| 67 | 3 | 100,0 | 0,0 | – | – |
| 70 | 28 199 | 95,5 | 4,5 | 48,2 | 51,8 |
| 71 | 2 212 | 98,0 | 2,0 | 54,1 | 45,9 |
| 72 | 5 779 | 98,0 | 2,0 | 27,5 | 72,5 |
| 73 | 3 525 | 92,5 | 7,5 | 26,0 | 74,0 |
| 74 | 34 527 | 96,7 | 3,3 | 35,5 | 64,5 |
| 75 | 214 | 85,9 | 14,1 | 34,4 | 65,6 |
| 80 | 2 026 | 92,0 | 8,0 | 14,1 | 85,9 |
| 85 | 4 396 | 93,0 | 7,0 | 20,4 | 79,6 |
| 90 | 1 262 | 79,5 | 20,5 | 26,1 | 73,9 |
| 91 | 132 | 95,0 | 5,0 | 5,2 | 94,8 |
| 92 | 4 594 | 94,0 | 6,0 | 11,3 | 88,7 |
| 93 | 3 235 | 97,5 | 2,5 | 72,4 | 27,6 |
| Total on the population | 332 877 | 93,52 | 6,48 | 19,61 | 80,39 |

Table G.7

**Share of non-financial enterprises by institutional sectors of economy**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CISE code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 0 | 64 | 48,85 | 51,15 | 6,63 | 93,37 |
| 11 | 221 | 89,11 | 10,89 | 70,06 | 29,94 |
| 12 | 14 790 | 99,82 | 0,18 | 77,74 | 22,26 |
| 13 | 573 | 100,00 | 0,00 | 100,00 | 0,00 |
| 21 | 0 | 0,00 | 100,00 | – | – |
| 23 | 0 | 0,00 | 100,00 | 0,00 | 100,00 |
| 24 | 211 | 61,52 | 38,48 | 13,52 | 86,48 |
| 25 | 11 | 44,00 | 56,00 | 5,32 | 94,68 |
| 27 | 79 | 94,05 | 5,95 | 57,80 | 42,20 |
| 28 | 2 311 | 97,26 | 2,74 | 77,48 | 22,52 |
| 29 | 164 | 93,71 | 6,29 | 51,73 | 48,27 |
| 31 | 8 | 88,89 | 11,11 | 47,28 | 52,72 |
| 32 | 1 843 | 95,44 | 4,56 | 95,32 | 4,68 |
| 33 | 113 | 89,68 | 10,32 | 20,72 | 79,28 |
| 35 | 10 | 83,33 | 16,67 | – | – |
| 36 | 613 | 86,34 | 13,66 | 31,70 | 68,30 |
| 37 | 36 | 85,71 | 14,29 | 20,08 | 79,92 |
| 41 | 16 917 | 78,67 | 21,33 | 37,86 | 62,14 |
| 42 | 73 097 | 91,80 | 8,20 | 38,85 | 61,15 |
| 43 | 818 | 83,55 | 16,45 | 29,65 | 70,35 |
| 60 | 180 208 | 99,87 | 0,13 | 88,98 | 11,02 |
| 99 | 4 | 48,85 | 51,15 | 6,63 | 93,37 |
| Total on the population | 292 091 | 96,03 | 3,97 | 34,59 | 65,41 |

(«–» - enterprises have zero investment indicator)

Table G.8

**Share of financial enterprises by regions**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| USREOU region code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 1 | 12 907 | 96,52 | 3,48 | 38,60 | 61,40 |
| 5 | 9 833 | 96,23 | 3,77 | 68,86 | 31,14 |
| 7 | 7 723 | 96,51 | 3,49 | 45,79 | 54,21 |
| 12 | 17 824 | 95,28 | 4,72 | 22,98 | 77,02 |
| 14 | 20 578 | 95,41 | 4,59 | 35,89 | 64,11 |
| 18 | 8 749 | 96,60 | 3,40 | 21,31 | 78,69 |
| 21 | 8 170 | 96,89 | 3,11 | 42,23 | 57,77 |
| 23 | 10 546 | 96,13 | 3,87 | 55,80 | 44,20 |
| 26 | 8 584 | 96,44 | 3,56 | 41,39 | 58,61 |
| 32 | 13 456 | 97,35 | 2,65 | 54,16 | 45,84 |
| 35 | 6 853 | 95,98 | 4,02 | 80,81 | 19,19 |
| 44 | 10 477 | 93,26 | 6,74 | 48,04 | 51,96 |
| 46 | 17 412 | 96,60 | 3,40 | 30,05 | 69,95 |
| 48 | 8 540 | 96,75 | 3,25 | 54,38 | 45,62 |
| 51 | 14 422 | 96,29 | 3,71 | 45,27 | 54,73 |
| 53 | 10 975 | 96,41 | 3,59 | 52,11 | 47,89 |
| 56 | 7 313 | 95,57 | 4,43 | 49,83 | 50,17 |
| 59 | 6 961 | 95,96 | 4,04 | 17,38 | 82,62 |
| 61 | 8 138 | 96,52 | 3,48 | 48,43 | 51,57 |
| 63 | 14 989 | 95,22 | 4,78 | 36,19 | 63,81 |
| 65 | 7 140 | 96,30 | 3,70 | 54,65 | 45,35 |
| 68 | 9 221 | 96,24 | 3,76 | 52,67 | 47,33 |
| 71 | 9 192 | 96,78 | 3,22 | 41,73 | 58,27 |
| 73 | 6 126 | 97,01 | 2,99 | 81,09 | 18,91 |
| 74 | 7 093 | 95,58 | 4,42 | 25,61 | 74,39 |
| 80 | 25 347 | 95,43 | 4,57 | 19,76 | 80,24 |
| 85 | 3 522 | 96,33 | 3,67 | 80,14 | 19,86 |
| Total on the population | 292 091 | 96,03 | 3,97 | 34,59 | 65,41 |

Table G.9

**Share of financial enterprises by economic activities**

(%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NACE code | By the number of enterprises | | | By capital investments | |
| units | small | medium and large | small | medium and large |
| 1 | 2 055 | 99,90 | 0,10 | 95,54 | 4,46 |
| 2 | 24 | 100,00 | 0,00 | – | – |
| 5 | 38 | 97,44 | 2,56 | – | – |
| 10 | 26 | 100,00 | 0,00 | – | – |
| 11 | 7 | 100,00 | 0,00 | – | – |
| 13 | 3 | 100,00 | 0,00 | – | – |
| 14 | 43 | 100,00 | 0,00 | – | – |
| 15 | 258 | 100,00 | 0,00 | 100,00 | 0,00 |
| 16 | 2 | 100,00 | 0,00 | – | – |
| 17 | 25 | 100,00 | 0,00 | – | – |
| 18 | 55 | 100,00 | 0,00 | – | – |
| 19 | 24 | 100,00 | 0,00 | – | – |
| 20 | 125 | 100,00 | 0,00 | 100,00 | 0,00 |
| 21 | 26 | 100,00 | 0,00 | 100,00 | 0,00 |
| 22 | 197 | 100,00 | 0,00 | – | – |
| 23 | 15 | 100,00 | 0,00 | – | – |
| 24 | 74 | 100,00 | 0,00 | 100,00 | 0,00 |
| 25 | 77 | 100,00 | 0,00 | – | – |
| 26 | 126 | 100,00 | 0,00 | 100,00 | 0,00 |
| 27 | 22 | 100,00 | 0,00 | – | – |
| 28 | 116 | 100,00 | 0,00 | 100,00 | 0,00 |
| 29 | 183 | 100,00 | 0,00 | 100,00 | 0,00 |
| 30 | 22 | 100,00 | 0,00 | – | – |
| 31 | 75 | 100,00 | 0,00 | – | – |
| 32 | 27 | 100,00 | 0,00 | – | – |
| 33 | 36 | 100,00 | 0,00 | – | – |
| 34 | 10 | 100,00 | 0,00 | – | – |
| 35 | 33 | 100,00 | 0,00 | – | – |
| 36 | 82 | 100,00 | 0,00 | 100,00 | 0,00 |
| 37 | 88 | 100,00 | 0,00 | 100,00 | 0,00 |
| 40 | 49 | 100,00 | 0,00 | 100,00 | 0,00 |
| 41 | 63 | 100,00 | 0,00 | – | – |
| 45 | 1 371 | 100,00 | 0,00 | 100,00 | 0,00 |
| 50 | 435 | 99,77 | 0,23 | 100,00 | 0,00 |
| 51 | 4 745 | 100,00 | 0,00 | 100,00 | 0,00 |
| 52 | 665 | 100,00 | 0,00 | 100,00 | 0,00 |
| 55 | 357 | 100,00 | 0,00 | 100,00 | 0,00 |
| 60 | 250 | 100,00 | 0,00 | 100,00 | 0,00 |
| 61 | 7 | 100,00 | 0,00 | – | – |
| 62 | 11 | 100,00 | 0,00 | – | – |
| 63 | 697 | 99,71 | 0,29 | 58,25 | 41,75 |
| 64 | 89 | 100,00 | 0,00 | 100,00 | 0,00 |
| 65 | 2 779 | 92,26 | 7,74 | 21,08 | 78,92 |
| 66 | 421 | 79,89 | 20,11 | 30,21 | 69,79 |
| 67 | 2 071 | 95,09 | 4,91 | 88,24 | 11,76 |
| 70 | 28 973 | 99,96 | 0,04 | 99,59 | 0,41 |
| 71 | 59 | 100,00 | 0,00 | – | – |
| 72 | 286 | 100,00 | 0,00 | 100,00 | 0,00 |
| 73 | 382 | 52,47 | 47,53 | 5,40 | 94,60 |
| 74 | 3 028 | 97,24 | 2,76 | 10,12 | 89,88 |
| 75 | 43 696 | 93,06 | 6,94 | 47,85 | 52,15 |
| 80 | 34 881 | 91,00 | 9,00 | 13,61 | 86,39 |
| 85 | 18 260 | 82,86 | 17,14 | 17,08 | 82,92 |
| 90 | 78 | 100,00 | 0,00 | 100,00 | 0,00 |
| 91 | 136 372 | 99,91 | 0,09 | 93,61 | 6,39 |
| 92 | 7 867 | 93,33 | 6,67 | 15,72 | 84,28 |
| 93 | 305 | 100,00 | 0,00 | 100,00 | 0,00 |
| Total on the population | 292 091 | 96,03 | 3,97 | 34,59 | 65,41 |

(«–» - enterprises have zero investment indicator)

Annex H

Table H.1

**Main indicators by strata before and after detection of outliers by three sigma method**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Stratum | Number of enterprises | | Number of outliers | Before detection | | | | After detection | | | |
| before detection | after detection | total | average | mean square mean square deviation | coefficient of variation | total | average | mean square deviation | coefficient of  variation |
| 111 | 3587 | 3583 | 4 | 27973 | 7,8 | 315,3 | 40,4 | 5375 | 1,5 | 19,4 | 13,0 |
| 112 | 18622 | 18555 | 67 | 160493 | 8,6 | 159,9 | 18,5 | 55851 | 3,0 | 24,1 | 8,0 |
| 113 | 4645 | 4632 | 13 | 161306 | 34,7 | 454,9 | 13,1 | 101487 | 21,9 | 104,0 | 4,7 |
| 114 | 2518 | 2476 | 42 | 164670 | 65,4 | 273,5 | 4,2 | 90126 | 36,4 | 111,8 | 3,1 |
| 115 | 2708 | 2683 | 25 | 468610 | 173,1 | 923,7 | 5,3 | 305621 | 113,9 | 332,6 | 2,9 |
| 116 | 2963 | 2923 | 40 | 1452520 | 490,2 | 1728,7 | 3,5 | 964210 | 329,9 | 692,2 | 2,1 |
| 121 | 2001 | 1989 | 12 | 8894 | 4,4 | 65,1 | 14,7 | 1730 | 0,9 | 9,9 | 11,4 |
| 122 | 37 | 36 | 1 | 401 | 10,8 | 65,9 | 6,1 | 0 | 0,0 | 0,0 | 0,0 |
| 123 | 7 |  | 7 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 124 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 125 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 211 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 212 | 195 | 193 | 2 | 427 | 2,2 | 23,8 | 10,9 | 29 | 0,2 | 1,8 | 11,7 |
| 213 | 79 | 78 | 1 | 659 | 8,3 | 52,0 | 6,2 | 209 | 2,7 | 13,1 | 4,9 |
| 214 | 54 | 53 | 1 | 301 | 5,6 | 18,0 | 3,2 | 194 | 3,7 | 11,4 | 3,1 |
| 215 | 68 | 66 | 2 | 1728 | 25,4 | 83,8 | 3,3 | 880 | 13,3 | 42,4 | 3,2 |
| 216 | 119 | 118 | 1 | 3517 | 29,6 | 93,9 | 3,2 | 2603 | 22,1 | 46,3 | 2,1 |
| 221 | 24 | 24 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 511 | 38 | 38 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 512 | 382 | 380 | 2 | 7681 | 20,1 | 265,9 | 13,2 | 939 | 2,5 | 28,0 | 11,3 |
| 513 | 134 | 131 | 3 | 263 | 2,0 | 9,0 | 4,6 | 102 | 0,8 | 3,7 | 4,8 |
| 514 | 94 | 91 | 3 | 584 | 6,2 | 25,8 | 4,2 | 172 | 1,9 | 8,5 | 4,5 |
| 515 | 87 | 85 | 2 | 3621 | 41,6 | 213,3 | 5,1 | 1021 | 12,0 | 52,0 | 4,3 |
| 516 | 74 | 72 | 2 | 7308 | 98,8 | 288,0 | 2,9 | 3989 | 55,4 | 121,4 | 2,2 |
| 521 | 37 | 37 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 522 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 1011 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1012 | 116 | 115 | 1 | 311 | 2,7 | 25,7 | 9,6 | 36 | 0,3 | 3,4 | 10,8 |
| 1013 | 32 | 31 | 1 | 522 | 16,3 | 77,8 | 4,8 | 85 | 2,7 | 13,1 | 4,8 |
| 1014 | 14 | 13 | 1 | 6109 | 436,4 | 1632,4 | 3,7 | 1 | 0,1 | 0,3 | 3,5 |
| 1015 | 29 | 27 | 2 | 1931 | 66,6 | 191,1 | 2,9 | 485 | 18,0 | 61,1 | 3,4 |
| 1016 | 33 | 31 | 2 | 3887 | 117,8 | 225,6 | 1,9 | 2162 | 69,7 | 122,0 | 1,7 |
| 1021 | 26 | 26 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 1112 | 73 | 72 | 1 | 683 | 9,4 | 79,9 | 8,5 | 0 | 0,0 | 0,0 | 0,0 |
| 1113 | 7 |  | 7 | 762 | 108,9 | 288,0 | 2,6 | 0 |  |  |  |
| 1114 | 4 |  | 4 | 213 | 53,3 | 106,5 | 2,0 | 0 |  |  |  |
| 1115 | 12 | 11 | 1 | 2741 | 228,4 | 682,1 | 3,0 | 360 | 32,7 | 79,6 | 2,4 |
| 1116 | 18 | 17 | 1 | 92093 | 5116,3 | 13065,6 | 2,6 | 37854 | 2226,7 | 4657,5 | 2,1 |
| 1121 | 7 |  | 7 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1312 | 11 |  | 11 | 4393 | 399,4 | 1324,5 | 3,3 | 0 |  |  |  |
| 1313 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1315 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 1316 | 1 |  | 1 | 24 | 24,0 |  | 0,0 | 0 |  |  |  |
| 1321 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1411 | 14 | 13 | 1 | 77 | 5,5 | 20,6 | 3,7 | 0 | 0,0 | 0,0 | 0,0 |
| 1412 | 564 | 557 | 7 | 32073 | 56,9 | 514,0 | 9,0 | 3671 | 6,6 | 73,2 | 11,1 |
| 1413 | 95 | 93 | 2 | 4481 | 47,2 | 218,0 | 4,6 | 1600 | 17,2 | 73,1 | 4,2 |
| 1414 | 79 | 76 | 3 | 3926 | 49,7 | 178,7 | 3,6 | 1286 | 16,9 | 63,3 | 3,7 |
| 1415 | 85 | 84 | 1 | 22121 | 260,3 | 973,3 | 3,7 | 14407 | 171,5 | 530,5 | 3,1 |
| 1416 | 139 | 135 | 4 | 46645 | 335,6 | 975,4 | 2,9 | 25820 | 191,3 | 381,4 | 2,0 |
| 1421 | 43 | 43 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 1511 | 80 | 79 | 1 | 4 | 0,1 | 0,5 | 9,0 | 0 | 0,0 | 0,0 | 0,0 |
| 1512 | 2007 | 2005 | 2 | 370072 | 184,4 | 6499,1 | 35,2 | 22115 | 11,0 | 204,0 | 18,5 |
| 1513 | 796 | 789 | 7 | 13830 | 17,4 | 131,7 | 7,6 | 5562 | 7,1 | 38,7 | 5,5 |
| 1514 | 584 | 582 | 2 | 50318 | 86,2 | 1315,0 | 15,3 | 13764 | 23,7 | 176,2 | 7,4 |
| 1515 | 784 | 778 | 6 | 100746 | 128,5 | 1104,1 | 8,6 | 37118 | 47,7 | 222,8 | 4,7 |
| 1516 | 864 | 850 | 14 | 207486 | 240,2 | 1025,3 | 4,3 | 112651 | 132,5 | 363,0 | 2,7 |
| 1521 | 256 | 255 | 1 | 12001 | 46,9 | 720,0 | 15,4 | 490 | 1,9 | 30,7 | 16,0 |
| 1522 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 1523 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 1612 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 1613 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1614 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 1615 | 1 |  | 1 | 3716 | 3716,0 |  | 0,0 | 0 |  |  |  |
| 1616 | 2 |  | 2 | 2907 | 1453,5 | 1430,5 | 1,0 | 0 |  |  |  |
| 1621 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1711 | 13 | 13 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 |  |
| 1712 | 268 | 267 | 1 | 543 | 2,0 | 31,8 | 15,7 | 24 | 0,1 | 1,4 | 15,7 |
| 1713 | 126 | 124 | 2 | 178 | 1,4 | 11,2 | 7,9 | 14 | 0,1 | 0,9 | 8,1 |
| 1714 | 87 | 85 | 2 | 537 | 6,2 | 35,9 | 5,8 | 89 | 1,1 | 5,9 | 5,6 |
| 1715 | 93 | 92 | 1 | 3143 | 33,8 | 172,2 | 5,1 | 1585 | 17,2 | 64,5 | 3,7 |
| 1716 | 108 | 106 | 2 | 16062 | 148,7 | 571,5 | 3,8 | 8472 | 79,9 | 245,4 | 3,1 |
| 1721 | 25 | 25 | 0 | 0 | 0,0 | ,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 1811 | 20 | 20 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 1812 | 637 | 635 | 2 | 1203 | 1,9 | 36,1 | 19,1 | 19 | 0,0 | 0,5 | 18,0 |
| 1813 | 323 | 322 | 1 | 38024 | 117,7 | 2080,7 | 17,7 | 628 | 2,0 | 23,0 | 11,8 |
| 1814 | 257 | 253 | 4 | 667 | 2,6 | 20,0 | 7,7 | 73 | 0,3 | 2,3 | 7,9 |
| 1815 | 309 | 304 | 5 | 4188 | 13,6 | 84,0 | 6,2 | 1252 | 4,1 | 19,7 | 4,8 |
| 1816 | 349 | 345 | 4 | 12365 | 35,4 | 197,8 | 5,6 | 6386 | 18,5 | 67,5 | 3,6 |
| 1821 | 55 | 55 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 1911 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 1912 | 138 | 137 | 1 | 79 | 0,6 | 6,0 | 10,5 | 10 | 0,1 | 0,8 | 11,0 |
| 1913 | 51 | 50 | 1 | 890 | 17,5 | 112,1 | 6,4 | 90 | 1,8 | 9,1 | 5,0 |
| 1914 | 35 | 34 | 1 | 56 | 1,6 | 6,9 | 4,3 | 16 | 0,5 | 1,8 | 3,9 |
| 1915 | 52 | 51 | 1 | 1409 | 27,1 | 173,6 | 6,4 | 160 | 3,1 | 16,9 | 5,4 |
| 1916 | 83 | 81 | 2 | 7477 | 90,1 | 286,4 | 3,2 | 4276 | 52,8 | 143,4 | 2,7 |
| 1921 | 24 | 24 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2011 | 71 | 71 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2012 | 1340 | 1335 | 5 | 9477 | 7,1 | 122,1 | 17,3 | 2029 | 1,5 | 17,4 | 11,5 |
| 2013 | 574 | 573 | 1 | 18751 | 32,7 | 464,0 | 14,2 | 7753 | 13,5 | 71,0 | 5,2 |
| 2014 | 382 | 381 | 1 | 17663 | 46,2 | 621,5 | 13,4 | 5582 | 14,7 | 71,8 | 4,9 |
| 2015 | 363 | 362 | 1 | 100093 | 275,7 | 4377,0 | 15,9 | 16790 | 46,4 | 250,2 | 5,4 |
| 2016 | 295 | 292 | 3 | 29363 | 99,5 | 376,3 | 3,8 | 20329 | 69,6 | 154,6 | 2,2 |
| 2021 | 125 | 124 | 1 | 145 | 1,2 | 13,0 | 11,2 | 0 | 0,0 | 0,0 | 0,0 |
| 2111 | 7 |  | 7 | 71 | 10,1 | 26,8 | 2,6 | 0 |  |  |  |
| 2112 | 143 | 142 | 1 | 112 | 0,8 | 6,4 | 8,1 | 40 | 0,3 | 2,1 | 7,4 |
| 2113 | 63 | 62 | 1 | 1307 | 20,8 | 105,1 | 5,1 | 516 | 8,3 | 36,6 | 4,4 |
| 2114 | 68 | 67 | 1 | 1912 | 28,1 | 141,3 | 5,0 | 793 | 11,8 | 44,4 | 3,7 |
| 2115 | 82 | 80 | 2 | 6866 | 83,7 | 272,4 | 3,3 | 3519 | 44,0 | 101,8 | 2,3 |
| 2116 | 80 | 79 | 1 | 22202 | 277,5 | 1078,9 | 3,9 | 12732 | 161,2 | 286,0 | 1,8 |
| 2121 | 26 | 25 | 1 | 1332 | 51,2 | 261,2 | 5,1 | 0 | 0,0 | 0,0 | 0,0 |
| 2211 | 71 | 71 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2212 | 2371 | 2369 | 2 | 29476 | 12,4 | 513,1 | 41,3 | 2819 | 1,2 | 17,8 | 14,9 |
| 2213 | 1270 | 1260 | 10 | 3399 | 2,7 | 25,0 | 9,3 | 1147 | 0,9 | 5,6 | 6,1 |
| 2214 | 1046 | 1042 | 4 | 9180 | 8,8 | 111,3 | 12,7 | 3209 | 3,1 | 20,1 | 6,5 |
| 2215 | 831 | 823 | 8 | 21499 | 25,9 | 222,5 | 8,6 | 8625 | 10,5 | 50,4 | 4,8 |
| 2216 | 439 | 430 | 9 | 41813 | 95,3 | 391,9 | 4,1 | 19230 | 44,7 | 140,7 | 3,1 |
| 2221 | 194 | 194 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2223 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 2225 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 2311 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 2312 | 72 | 71 | 1 | 77 | 1,1 | 6,5 | 6,1 | 25 | 0,4 | 2,4 | 6,7 |
| 2313 | 21 | 20 | 1 | 635 | 30,2 | 123,8 | 4,1 | 67 | 3,4 | 12,7 | 3,8 |
| 2314 | 15 | 14 | 1 | 1588 | 105,9 | 320,8 | 3,0 | 344 | 24,6 | 64,0 | 2,6 |
| 2315 | 11 | 11 | 0 | 5460 | 496,4 | 1160,7 | 2,3 | 5460 | 496,4 | 1160,7 | 2,3 |
| 2316 | 20 | 20 | 0 | 17908 | 895,4 | 2139,1 | 2,4 | 17908 | 895,4 | 2139,1 | 2,4 |
| 2321 | 15 | 15 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2411 | 19 | 18 | 1 | 90 | 4,7 | 20,7 | 4,4 | 0 | 0,0 | 0,0 | 0,0 |
| 2412 | 606 | 600 | 6 | 4641 | 7,7 | 92,0 | 12,0 | 654 | 1,1 | 8,8 | 8,1 |
| 2413 | 229 | 227 | 2 | 6996 | 30,6 | 268,7 | 8,8 | 2247 | 9,9 | 55,2 | 5,6 |
| 2414 | 161 | 158 | 3 | 7287 | 45,3 | 245,9 | 5,4 | 2481 | 15,7 | 54,4 | 3,5 |
| 2415 | 192 | 190 | 2 | 15697 | 81,8 | 313,7 | 3,8 | 10670 | 56,2 | 147,4 | 2,6 |
| 2416 | 160 | 157 | 3 | 61070 | 381,7 | 1596,7 | 4,2 | 29566 | 188,3 | 387,1 | 2,1 |
| 2421 | 74 | 73 | 1 | 1246 | 16,8 | 144,8 | 8,6 | 0 | 0,0 | 0,0 | 0,0 |
| 2511 | 25 | 25 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2512 | 652 | 649 | 3 | 10467 | 16,1 | 238,4 | 14,9 | 2440 | 3,8 | 38,4 | 10,2 |
| 2513 | 367 | 366 | 1 | 20930 | 57,0 | 630,7 | 11,1 | 9307 | 25,4 | 177,2 | 7,0 |
| 2514 | 290 | 285 | 5 | 2717 | 9,4 | 39,3 | 4,2 | 1428 | 5,0 | 18,2 | 3,6 |
| 2515 | 340 | 339 | 1 | 49693 | 146,2 | 1652,5 | 11,3 | 19384 | 57,2 | 198,6 | 3,5 |
| 2516 | 319 | 316 | 3 | 108256 | 339,4 | 1799,8 | 5,3 | 66708 | 211,1 | 554,4 | 2,6 |
| 2521 | 77 | 77 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2611 | 45 | 44 | 1 | 4263 | 94,7 | 608,6 | 6,4 | 179 | 4,1 | 23,4 | 5,8 |
| 2612 | 1074 | 1069 | 5 | 6308 | 5,9 | 81,6 | 13,9 | 1625 | 1,5 | 13,8 | 9,1 |
| 2613 | 477 | 475 | 2 | 15211 | 31,9 | 341,6 | 10,7 | 6821 | 14,4 | 75,3 | 5,2 |
| 2614 | 358 | 355 | 3 | 34914 | 97,5 | 850,5 | 8,7 | 10178 | 28,7 | 174,2 | 6,1 |
| 2615 | 444 | 441 | 3 | 32653 | 73,5 | 507,5 | 6,9 | 17106 | 38,8 | 149,9 | 3,9 |
| 2616 | 469 | 465 | 4 | 103872 | 221,5 | 995,6 | 4,5 | 73410 | 157,9 | 416,8 | 2,6 |
| 2621 | 126 | 125 | 1 | 1 | 0,0 | 0,1 | 9,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2711 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 2712 | 99 | 97 | 2 | 5167 | 52,2 | 338,4 | 6,5 | 391 | 4,0 | 27,4 | 6,8 |
| 2713 | 54 | 53 | 1 | 3599 | 66,7 | 408,7 | 6,1 | 627 | 11,8 | 69,6 | 5,9 |
| 2714 | 42 | 41 | 1 | 4876 | 116,1 | 392,2 | 3,4 | 2697 | 65,8 | 220,6 | 3,4 |
| 2715 | 52 | 51 | 1 | 3370 | 64,8 | 215,3 | 3,3 | 2061 | 40,4 | 125,4 | 3,1 |
| 2716 | 88 | 87 | 1 | 25369 | 288,3 | 1005,8 | 3,5 | 16723 | 192,2 | 449,2 | 2,3 |
| 2721 | 22 | 22 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2811 | 49 | 49 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 2812 | 1063 | 1053 | 10 | 3258 | 3,1 | 31,0 | 10,1 | 274 | 0,3 | 3,0 | 11,4 |
| 2813 | 589 | 577 | 12 | 2202 | 3,7 | 22,4 | 6,0 | 485 | 0,8 | 4,7 | 5,6 |
| 2814 | 423 | 418 | 5 | 8624 | 20,4 | 125,6 | 6,2 | 3708 | 8,9 | 39,0 | 4,4 |
| 2815 | 484 | 479 | 5 | 20992 | 43,4 | 251,4 | 5,8 | 10816 | 22,6 | 78,5 | 3,5 |
| 2816 | 480 | 479 | 1 | 220082 | 458,5 | 7321,7 | 16,0 | 59851 | 125,0 | 452,1 | 3,6 |
| 2821 | 116 | 115 | 1 | 57 | 0,5 | 5,3 | 10,8 | 0 | 0,0 | 0,0 | 0,0 |
| 2911 | 65 | 64 | 1 | 1976 | 30,4 | 244,3 | 8,0 | 6 | 0,1 | 0,8 | 8,3 |
| 2912 | 1485 | 1473 | 12 | 2051 | 1,4 | 16,8 | 12,2 | 295 | 0,2 | 2,1 | 10,3 |
| 2913 | 807 | 802 | 5 | 14985 | 18,6 | 270,9 | 14,6 | 2959 | 3,7 | 33,6 | 9,1 |
| 2914 | 536 | 535 | 1 | 27613 | 51,5 | 890,9 | 17,3 | 7099 | 13,3 | 97,9 | 7,4 |
| 2915 | 612 | 597 | 15 | 14937 | 24,4 | 104,7 | 4,3 | 6048 | 10,1 | 37,8 | 3,7 |
| 2916 | 567 | 558 | 9 | 45251 | 79,8 | 306,9 | 3,8 | 27258 | 48,9 | 134,3 | 2,7 |
| 2921 | 183 | 182 | 1 | 3 | 0,0 | 0,2 | 11,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3011 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 3012 | 173 | 172 | 1 | 288 | 1,7 | 18,6 | 11,2 | 45 | 0,3 | 2,2 | 8,5 |
| 3013 | 93 | 91 | 2 | 185 | 2,0 | 10,7 | 5,4 | 44 | 0,5 | 2,4 | 5,0 |
| 3014 | 51 | 50 | 1 | 381 | 7,5 | 33,2 | 4,4 | 158 | 3,2 | 12,5 | 3,9 |
| 3015 | 31 | 30 | 1 | 2792 | 90,1 | 296,3 | 3,3 | 1190 | 39,7 | 96,8 | 2,4 |
| 3016 | 22 | 21 | 1 | 2230 | 101,4 | 328,6 | 3,2 | 934 | 44,5 | 196,6 | 4,4 |
| 3021 | 22 | 22 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3111 | 41 | 41 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3112 | 680 | 679 | 1 | 753 | 1,1 | 25,1 | 22,6 | 102 | 0,2 | 1,7 | 11,5 |
| 3113 | 404 | 400 | 4 | 1934 | 4,8 | 33,4 | 7,0 | 700 | 1,8 | 9,8 | 5,6 |
| 3114 | 241 | 237 | 4 | 1972 | 8,2 | 46,1 | 5,6 | 607 | 2,6 | 12,3 | 4,8 |
| 3115 | 234 | 233 | 1 | 12420 | 53,1 | 375,1 | 7,1 | 6906 | 29,6 | 110,2 | 3,7 |
| 3116 | 184 | 180 | 4 | 24107 | 131,0 | 457,3 | 3,5 | 12834 | 71,3 | 176,0 | 2,5 |
| 3121 | 74 | 74 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3123 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 3211 | 11 | 11 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3212 | 239 | 236 | 3 | 265 | 1,1 | 10,9 | 9,8 | 7 | 0,0 | 0,4 | 13,0 |
| 3213 | 121 | 120 | 1 | 1244 | 10,3 | 93,9 | 9,1 | 226 | 1,9 | 16,3 | 8,7 |
| 3214 | 86 | 84 | 2 | 814 | 9,5 | 49,6 | 5,2 | 174 | 2,1 | 11,6 | 5,6 |
| 3215 | 65 | 64 | 1 | 1284 | 19,8 | 93,2 | 4,7 | 562 | 8,8 | 29,4 | 3,3 |
| 3216 | 39 | 38 | 1 | 3687 | 94,5 | 412,4 | 4,4 | 1116 | 29,4 | 67,5 | 2,3 |
| 3221 | 27 | 27 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3311 | 16 | 16 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3312 | 439 | 433 | 6 | 38 | 0,1 | 0,8 | 8,7 | 0 | 0,0 | 0,0 | 0,0 |
| 3313 | 309 | 303 | 6 | 287 | 0,9 | 6,5 | 7,0 | 55 | 0,2 | 1,1 | 6,3 |
| 3314 | 202 | 199 | 3 | 2372 | 11,7 | 72,0 | 6,1 | 786 | 4,0 | 17,5 | 4,4 |
| 3315 | 182 | 177 | 5 | 8975 | 49,3 | 201,4 | 4,1 | 3282 | 18,5 | 56,6 | 3,1 |
| 3316 | 134 | 131 | 3 | 6830 | 51,0 | 148,4 | 2,9 | 4330 | 33,1 | 73,4 | 2,2 |
| 3321 | 36 | 36 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3411 | 2 |  | 2 | 101 | 50,5 | 71,4 | 1,4 | 0 |  |  |  |
| 3412 | 79 | 78 | 1 | 17 | 0,2 | 1,9 | 8,7 | 0 | 0,0 | 0,0 | 0,0 |
| 3413 | 33 | 32 | 1 | 149 | 4,5 | 17,6 | 3,9 | 54 | 1,7 | 6,8 | 4,0 |
| 3414 | 27 | 27 | 0 | 281 | 10,4 | 26,3 | 2,5 | 281 | 10,4 | 26,3 | 2,5 |
| 3415 | 41 | 40 | 1 | 10155 | 247,7 | 1489,7 | 6,0 | 605 | 15,1 | 43,8 | 2,9 |
| 3416 | 49 | 47 | 2 | 20351 | 415,3 | 1711,5 | 4,1 | 3800 | 80,9 | 152,0 | 1,9 |
| 3421 | 10 |  | 10 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 3511 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 3512 | 243 | 242 | 1 | 3728 | 15,3 | 207,7 | 13,5 | 494 | 2,0 | 12,1 | 5,9 |
| 3513 | 119 | 118 | 1 | 737 | 6,2 | 45,5 | 7,4 | 251 | 2,1 | 10,3 | 4,8 |
| 3514 | 96 | 95 | 1 | 4595 | 47,9 | 354,5 | 7,4 | 1164 | 12,3 | 63,1 | 5,2 |
| 3515 | 67 | 66 | 1 | 76822 | 1146,6 | 9166,2 | 8,0 | 1772 | 26,9 | 108,6 | 4,0 |
| 3516 | 77 | 76 | 1 | 51215 | 665,1 | 4948,3 | 7,4 | 7801 | 102,6 | 353,3 | 3,4 |
| 3521 | 33 | 33 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3611 | 35 | 35 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 3612 | 798 | 795 | 3 | 6557 | 8,2 | 139,0 | 16,9 | 676 | 0,9 | 11,4 | 13,4 |
| 3613 | 383 | 382 | 1 | 6968 | 18,2 | 229,5 | 12,6 | 2563 | 6,7 | 46,4 | 6,9 |
| 3614 | 275 | 273 | 2 | 7992 | 29,1 | 299,6 | 10,3 | 1753 | 6,4 | 37,9 | 5,9 |
| 3615 | 299 | 295 | 4 | 5418 | 18,1 | 94,2 | 5,2 | 2617 | 8,9 | 39,3 | 4,4 |
| 3616 | 342 | 336 | 6 | 24853 | 72,7 | 265,6 | 3,7 | 14569 | 43,4 | 131,9 | 3,0 |
| 3621 | 82 | 81 | 1 | 4550 | 55,5 | 502,5 | 9,1 | 0 | 0,0 | 0,0 | 0,0 |
| 3711 | 23 | 22 | 1 | 342 | 14,9 | 57,3 | 3,9 | 73 | 3,3 | 14,9 | 4,5 |
| 3712 | 437 | 436 | 1 | 3661 | 8,4 | 138,6 | 16,5 | 780 | 1,8 | 16,3 | 9,1 |
| 3713 | 128 | 125 | 3 | 1328 | 10,4 | 60,2 | 5,8 | 153 | 1,2 | 6,2 | 5,1 |
| 3714 | 85 | 83 | 2 | 1707 | 20,1 | 74,8 | 3,7 | 856 | 10,3 | 40,3 | 3,9 |
| 3715 | 91 | 90 | 1 | 14604 | 160,5 | 1061,1 | 6,6 | 4539 | 50,4 | 154,9 | 3,1 |
| 3716 | 85 | 82 | 3 | 8387 | 98,7 | 228,2 | 2,3 | 5110 | 62,3 | 122,9 | 2,0 |
| 3721 | 88 | 87 | 1 | 126 | 1,4 | 13,4 | 9,4 | 0 | 0,0 | 0,0 | 0,0 |
| 4011 | 9 |  | 9 | 119 | 13,2 | 29,4 | 2,2 | 0 |  |  |  |
| 4012 | 312 | 309 | 3 | 16257 | 52,1 | 562,7 | 10,8 | 2861 | 9,3 | 100,9 | 10,9 |
| 4013 | 94 | 93 | 1 | 4876 | 51,9 | 463,2 | 8,9 | 390 | 4,2 | 29,2 | 7,0 |
| 4014 | 72 | 70 | 2 | 9970 | 138,5 | 572,7 | 4,1 | 3202 | 45,7 | 153,3 | 3,4 |
| 4015 | 122 | 118 | 4 | 20479 | 167,9 | 610,1 | 3,6 | 7560 | 64,1 | 165,7 | 2,6 |
| 4016 | 198 | 195 | 3 | 25272 | 127,6 | 358,3 | 2,8 | 18038 | 92,5 | 204,7 | 2,2 |
| 4021 | 47 | 46 | 1 | 357 | 7,6 | 52,1 | 6,9 | 0 | 0,0 | 0,0 | 0,0 |
| 4022 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 4023 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 4111 | 11 | 11 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 4112 | 280 | 279 | 1 | 382 | 1,4 | 20,0 | 14,7 | 50 | 0,2 | 2,1 | 11,7 |
| 4113 | 340 | 338 | 2 | 8959 | 26,4 | 348,7 | 13,2 | 635 | 1,9 | 13,4 | 7,1 |
| 4114 | 250 | 246 | 4 | 1200 | 4,8 | 30,7 | 6,4 | 327 | 1,3 | 5,6 | 4,2 |
| 4115 | 203 | 201 | 2 | 16832 | 82,9 | 692,9 | 8,4 | 2866 | 14,3 | 49,9 | 3,5 |
| 4116 | 201 | 197 | 4 | 11762 | 58,5 | 172,4 | 2,9 | 7884 | 40,0 | 84,0 | 2,1 |
| 4121 | 56 | 56 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 4122 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 4123 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 4124 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 4511 | 554 | 551 | 3 | 832 | 1,5 | 18,0 | 12,0 | 182 | 0,3 | 3,5 | 10,5 |
| 4512 | 15727 | 15700 | 27 | 982171 | 62,5 | 2306,9 | 36,9 | 166263 | 10,6 | 184,3 | 17,4 |
| 4513 | 6120 | 6106 | 14 | 454477 | 74,3 | 1713,4 | 23,1 | 106305 | 17,4 | 201,2 | 11,6 |
| 4514 | 4181 | 4172 | 9 | 717068 | 171,5 | 4585,9 | 26,7 | 159954 | 38,3 | 407,4 | 10,6 |
| 4515 | 4095 | 4088 | 7 | 1199855 | 293,0 | 9209,2 | 31,4 | 279129 | 68,3 | 706,9 | 10,4 |
| 4516 | 3124 | 3112 | 12 | 1262516 | 404,1 | 5435,2 | 13,4 | 561311 | 180,4 | 971,5 | 5,4 |
| 4521 | 1316 | 1313 | 3 | 2696 | 2,1 | 53,6 | 26,1 | 53 | 0,0 | 1,3 | 32,3 |
| 4522 | 43 | 42 | 1 | 12443 | 289,4 | 1725,6 | 6,0 | 1128 | 26,9 | 121,6 | 4,5 |
| 4523 | 7 |  | 7 | 5065 | 723,6 | 1914,4 | 2,6 | 0 |  |  |  |
| 4524 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 4525 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 4526 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 5011 | 215 | 213 | 2 | 482 | 2,2 | 21,3 | 9,5 | 45 | 0,2 | 1,5 | 7,2 |
| 5012 | 3771 | 3766 | 5 | 57915 | 15,4 | 412,4 | 26,9 | 10846 | 2,9 | 38,1 | 13,2 |
| 5013 | 1688 | 1675 | 13 | 28332 | 16,8 | 176,1 | 10,5 | 8492 | 5,1 | 32,3 | 6,4 |
| 5014 | 1046 | 1036 | 10 | 33840 | 32,4 | 213,3 | 6,6 | 15302 | 14,8 | 60,3 | 4,1 |
| 5015 | 961 | 954 | 7 | 138447 | 144,1 | 1377,9 | 9,6 | 66198 | 69,4 | 277,8 | 4,0 |
| 5016 | 717 | 707 | 10 | 245936 | 343,0 | 1381,6 | 4,0 | 163685 | 231,5 | 573,2 | 2,5 |
| 5021 | 422 | 421 | 1 | 117 | 0,3 | 5,5 | 19,5 | 4 | 0,0 | 0,2 | 24,0 |
| 5022 | 4 |  | 4 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 5023 | 5 |  | 5 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 5024 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 5025 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 5111 | 2428 | 2423 | 5 | 3818 | 1,6 | 41,8 | 26,6 | 1018 | 0,4 | 5,6 | 13,3 |
| 5112 | 39475 | 39459 | 16 | 763120 | 19,3 | 1908,2 | 98,7 | 146787 | 3,7 | 92,0 | 24,7 |
| 5113 | 16029 | 16011 | 18 | 736517 | 46,0 | 1652,7 | 36,0 | 208944 | 13,1 | 143,3 | 11,0 |
| 5114 | 7989 | 7966 | 23 | 499783 | 62,6 | 1036,8 | 16,6 | 187759 | 23,6 | 147,4 | 6,3 |
| 5115 | 5475 | 5451 | 24 | 615603 | 112,4 | 1204,9 | 10,7 | 304602 | 55,9 | 246,5 | 4,4 |
| 5116 | 3389 | 3383 | 6 | 1525826 | 450,2 | 9576,7 | 21,3 | 691756 | 204,5 | 892,1 | 4,4 |
| 5121 | 4704 | 4701 | 3 | 18950 | 4,0 | 202,0 | 50,1 | 1974 | 0,4 | 11,3 | 27,0 |
| 5122 | 28 | 27 | 1 | 3 | 0,1 | 0,6 | 5,2 | 0 | 0,0 | 0,0 | 0,0 |
| 5123 | 7 |  | 7 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 5124 | 6 |  | 6 | 11 | 1,8 | 4,5 | 2,5 | 0 |  |  |  |
| 5211 | 280 | 278 | 2 | 397 | 1,4 | 16,4 | 11,6 | 36 | 0,1 | 2,0 | 15,7 |
| 5212 | 8414 | 8404 | 10 | 65499 | 7,8 | 278,9 | 35,8 | 9076 | 1,1 | 18,8 | 17,4 |
| 5213 | 4773 | 4758 | 15 | 47689 | 10,0 | 178,8 | 17,9 | 10135 | 2,1 | 22,2 | 10,4 |
| 5214 | 2813 | 2810 | 3 | 121851 | 43,3 | 1335,1 | 30,8 | 27341 | 9,7 | 83,9 | 8,6 |
| 5215 | 2489 | 2474 | 15 | 77302 | 31,1 | 275,6 | 8,9 | 37654 | 15,2 | 63,9 | 4,2 |
| 5216 | 1738 | 1734 | 4 | 168512 | 97,0 | 1128,1 | 11,6 | 107092 | 61,8 | 226,2 | 3,7 |
| 5221 | 662 | 660 | 2 | 279 | 0,4 | 8,8 | 20,9 | 20 | 0,0 | 0,9 | 28,7 |
| 5222 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 5223 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 5511 | 85 | 83 | 2 | 549 | 6,5 | 34,1 | 5,3 | 158 | 1,9 | 13,0 | 6,8 |
| 5512 | 3395 | 3390 | 5 | 73873 | 21,8 | 617,1 | 28,4 | 17798 | 5,3 | 60,4 | 11,5 |
| 5513 | 2032 | 2025 | 7 | 37874 | 18,6 | 317,2 | 17,0 | 12555 | 6,2 | 54,3 | 8,8 |
| 5514 | 1433 | 1420 | 13 | 39763 | 27,8 | 271,3 | 9,8 | 9017 | 6,4 | 40,0 | 6,3 |
| 5515 | 1305 | 1297 | 8 | 134942 | 103,4 | 1356,6 | 13,1 | 37561 | 29,0 | 176,4 | 6,1 |
| 5516 | 986 | 978 | 8 | 229939 | 233,2 | 1676,9 | 7,2 | 108988 | 111,4 | 436,5 | 3,9 |
| 5521 | 355 | 353 | 2 | 555 | 1,6 | 20,9 | 13,4 | 4 | 0,0 | 0,1 | 11,0 |
| 5522 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 6011 | 76 | 75 | 1 | 389 | 5,1 | 42,3 | 8,3 | 20 | 0,3 | 1,8 | 6,5 |
| 6012 | 2018 | 2008 | 10 | 36880 | 18,3 | 275,1 | 15,1 | 8454 | 4,2 | 43,4 | 10,3 |
| 6013 | 1053 | 1043 | 10 | 14515 | 13,8 | 121,0 | 8,8 | 4162 | 4,0 | 23,9 | 6,0 |
| 6014 | 832 | 819 | 13 | 24556 | 29,5 | 175,5 | 5,9 | 9451 | 11,5 | 52,6 | 4,6 |
| 6015 | 967 | 966 | 1 | 195609 | 202,3 | 3710,0 | 18,3 | 81115 | 84,0 | 477,8 | 5,7 |
| 6016 | 1006 | 981 | 25 | 167043 | 166,1 | 484,5 | 2,9 | 102936 | 104,9 | 253,8 | 2,4 |
| 6021 | 249 | 248 | 1 | 55 | 0,2 | 3,5 | 15,9 | 0 | 0,0 | 0,0 | 0,0 |
| 6023 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 6111 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 6112 | 64 | 63 | 1 | 65 | 1,0 | 6,7 | 6,6 | 12 | 0,2 | 1,4 | 7,3 |
| 6113 | 32 | 31 | 1 | 1020 | 31,9 | 170,3 | 5,3 | 56 | 1,8 | 9,0 | 5,0 |
| 6114 | 20 | 19 | 1 | 409 | 20,5 | 52,6 | 2,6 | 212 | 11,2 | 33,2 | 3,0 |
| 6115 | 13 | 13 | 0 | 3694 | 284,2 | 438,2 | 1,5 | 3694 | 284,2 | 438,2 | 1,5 |
| 6116 | 15 | 15 | 0 | 1431 | 95,4 | 180,4 | 1,9 | 1431 | 95,4 | 180,4 | 1,9 |
| 6121 | 7 |  | 7 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 6211 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 6212 | 56 | 55 | 1 | 4 | 0,1 | 0,5 | 7,6 | 0 | 0,0 | 0,0 | 0,0 |
| 6213 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 6214 | 5 |  | 5 | 213 | 42,6 | 95,3 | 2,2 | 0 |  |  |  |
| 6215 | 17 | 16 | 1 | 106 | 6,2 | 18,7 | 3,0 | 31 | 1,9 | 6,1 | 3,2 |
| 6216 | 19 | 18 | 1 | 7367 | 387,7 | 1632,7 | 4,2 | 239 | 13,3 | 38,0 | 2,9 |
| 6221 | 10 |  | 10 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  | 0,0 |
| 6222 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 6311 | 141 | 140 | 1 | 318 | 2,3 | 26,1 | 11,6 | 8 | 0,1 | 0,5 | 8,0 |
| 6312 | 4291 | 4282 | 9 | 53749 | 12,5 | 320,5 | 25,6 | 10277 | 2,4 | 33,1 | 13,8 |
| 6313 | 2100 | 2087 | 13 | 35207 | 16,8 | 235,8 | 14,1 | 6866 | 3,3 | 24,6 | 7,5 |
| 6314 | 1024 | 1019 | 5 | 108101 | 105,6 | 1544,4 | 14,6 | 16273 | 16,0 | 92,1 | 5,8 |
| 6315 | 760 | 758 | 2 | 115682 | 152,2 | 1921,1 | 12,6 | 48755 | 64,3 | 287,5 | 4,5 |
| 6316 | 564 | 557 | 7 | 194494 | 344,9 | 1825,9 | 5,3 | 85756 | 154,0 | 432,5 | 2,8 |
| 6321 | 532 | 531 | 1 | 60 | 0,1 | 2,6 | 23,6 | 0 | 0,0 | 0,0 | 0,0 |
| 6322 | 24 | 24 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6323 | 21 | 21 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6324 | 50 | 50 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6325 | 60 | 60 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6326 | 10 |  | 10 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 6411 | 17 | 17 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6412 | 735 | 734 | 1 | 9799 | 13,3 | 296,7 | 22,3 | 1769 | 2,4 | 19,2 | 8,0 |
| 6413 | 416 | 411 | 5 | 11368 | 27,3 | 196,2 | 7,2 | 3161 | 7,7 | 43,0 | 5,6 |
| 6414 | 293 | 291 | 2 | 30390 | 103,7 | 955,5 | 9,2 | 10723 | 36,9 | 150,1 | 4,1 |
| 6415 | 268 | 263 | 5 | 25668 | 95,8 | 288,9 | 3,0 | 16311 | 62,0 | 134,3 | 2,2 |
| 6416 | 163 | 159 | 4 | 73692 | 452,1 | 1111,5 | 2,5 | 48916 | 307,7 | 553,8 | 1,8 |
| 6421 | 89 | 88 | 1 | 41 | 0,5 | 4,4 | 9,5 | 0 | 0,0 | 0,0 | 0,0 |
| 6512 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  | 0,0 |
| 6515 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 6521 | 156 | 156 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6522 | 1300 | 1296 | 4 | 28194 | 21,7 | 436,2 | 20,1 | 1050 | 0,8 | 10,5 | 13,0 |
| 6523 | 649 | 643 | 6 | 90264 | 139,1 | 1456,1 | 10,5 | 9407 | 14,6 | 148,7 | 10,2 |
| 6524 | 327 | 324 | 3 | 36571 | 111,8 | 1048,4 | 9,4 | 9153 | 28,3 | 200,0 | 7,1 |
| 6525 | 226 | 223 | 3 | 133655 | 591,4 | 5082,3 | 8,6 | 9872 | 44,3 | 216,4 | 4,9 |
| 6526 | 121 | 119 | 2 | 618945 | 5115,3 | 28665,6 | 5,6 | 180663 | 1518,2 | 5097,1 | 3,4 |
| 6621 | 12 | 12 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6622 | 116 | 113 | 3 | 5706 | 49,2 | 293,8 | 6,0 | 334 | 3,0 | 20,5 | 6,9 |
| 6623 | 89 | 88 | 1 | 11573 | 130,0 | 1164,0 | 9,0 | 591 | 6,7 | 37,0 | 5,5 |
| 6624 | 57 | 56 | 1 | 3509 | 61,6 | 263,2 | 4,3 | 1575 | 28,1 | 75,2 | 2,7 |
| 6625 | 57 | 56 | 1 | 11858 | 208,0 | 689,4 | 3,3 | 7934 | 141,7 | 477,9 | 3,4 |
| 6626 | 90 | 88 | 2 | 19906 | 221,2 | 637,5 | 2,9 | 12026 | 136,7 | 292,8 | 2,1 |
| 6712 | 3 |  | 3 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 6721 | 130 | 130 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 6722 | 881 | 878 | 3 | 2084 | 2,4 | 44,5 | 18,8 | 105 | 0,1 | 2,3 | 18,9 |
| 6723 | 587 | 582 | 5 | 2409 | 4,1 | 41,2 | 10,1 | 605 | 1,0 | 6,5 | 6,3 |
| 6724 | 298 | 293 | 5 | 1779 | 6,0 | 33,0 | 5,5 | 671 | 2,3 | 11,2 | 4,9 |
| 6725 | 118 | 117 | 1 | 46561 | 394,6 | 4201,2 | 10,6 | 917 | 7,8 | 25,3 | 3,2 |
| 6726 | 57 | 56 | 1 | 10831 | 190,0 | 1162,5 | 6,1 | 2056 | 36,7 | 109,1 | 3,0 |
| 7011 | 697 | 694 | 3 | 24224 | 34,8 | 470,2 | 13,5 | 5288 | 7,6 | 72,7 | 9,5 |
| 7012 | 14905 | 14851 | 54 | 1210249 | 81,2 | 1451,8 | 17,9 | 286773 | 19,3 | 187,0 | 9,7 |
| 7013 | 5069 | 5058 | 11 | 1901357 | 375,1 | 8113,0 | 21,6 | 670640 | 132,6 | 1021,8 | 7,7 |
| 7014 | 2773 | 2752 | 21 | 1133752 | 408,9 | 3824,2 | 9,4 | 394031 | 143,2 | 824,1 | 5,8 |
| 7015 | 2567 | 2549 | 18 | 2575605 | 1003,4 | 10432,0 | 10,4 | 830031 | 325,6 | 1804,5 | 5,5 |
| 7016 | 2188 | 2175 | 13 | 2336994 | 1068,1 | 10652,2 | 10,0 | 1193096 | 548,6 | 2480,3 | 4,5 |
| 7021 | 19600 | 19583 | 17 | 26253 | 1,3 | 72,4 | 54,0 | 587 | 0,0 | 1,6 | 54,7 |
| 7022 | 3673 | 3670 | 3 | 43755 | 11,9 | 412,5 | 34,6 | 4000 | 1,1 | 25,7 | 23,5 |
| 7023 | 3510 | 3505 | 5 | 23094 | 6,6 | 219,7 | 33,4 | 876 | 0,3 | 10,0 | 40,1 |
| 7024 | 1665 | 1663 | 2 | 4741 | 2,9 | 99,7 | 35,0 | 382 | 0,2 | 6,1 | 26,6 |
| 7025 | 446 | 445 | 1 | 198 | 0,4 | 9,4 | 21,3 | 0 | 0,0 | 0,0 | 0,0 |
| 7026 | 79 | 78 | 1 | 10508 | 133,0 | 1156,2 | 8,7 | 230 | 3,0 | 21,8 | 7,4 |
| 7111 | 79 | 78 | 1 | 165 | 2,1 | 17,6 | 8,4 | 9 | 0,1 | 0,7 | 6,0 |
| 7112 | 1231 | 1219 | 12 | 52428 | 42,6 | 379,5 | 8,9 | 14738 | 12,1 | 84,2 | 7,0 |
| 7113 | 422 | 417 | 5 | 90431 | 214,3 | 1548,0 | 7,2 | 26129 | 62,7 | 313,8 | 5,0 |
| 7114 | 200 | 196 | 4 | 276011 | 1380,1 | 7353,7 | 5,3 | 84531 | 431,3 | 2073,0 | 4,8 |
| 7115 | 162 | 155 | 7 | 193281 | 1193,1 | 3771,9 | 3,2 | 69500 | 448,4 | 1166,9 | 2,6 |
| 7116 | 118 | 114 | 4 | 302546 | 2564,0 | 9000,9 | 3,5 | 114868 | 1007,6 | 2260,9 | 2,2 |
| 7121 | 58 | 58 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 7123 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 7211 | 88 | 87 | 1 | 23 | 0,3 | 1,6 | 6,2 | 9 | 0,1 | 0,6 | 6,1 |
| 7212 | 2778 | 2767 | 11 | 3751 | 1,4 | 21,8 | 16,2 | 526 | 0,2 | 2,2 | 11,5 |
| 7213 | 1318 | 1311 | 7 | 11660 | 8,9 | 127,8 | 14,4 | 2373 | 1,8 | 11,9 | 6,6 |
| 7214 | 732 | 725 | 7 | 6322 | 8,6 | 57,5 | 6,7 | 2915 | 4,0 | 16,9 | 4,2 |
| 7215 | 557 | 548 | 9 | 14288 | 25,7 | 131,0 | 5,1 | 6938 | 12,7 | 43,1 | 3,4 |
| 7216 | 306 | 299 | 7 | 25929 | 84,7 | 258,9 | 3,1 | 15491 | 51,8 | 124,7 | 2,4 |
| 7221 | 283 | 282 | 1 | 6 | 0,0 | 0,4 | 18,0 | 0 | 0,0 | 0,0 | 0,0 |
| 7223 | 2 |  | 2 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 7225 | 1 |  | 1 | 0 | 0,0 |  | 0,0 | 0 |  |  |  |
| 7311 | 43 | 42 | 1 | 10 | 0,2 | 1,5 | 6,6 | 0 | 0,0 | 0,0 | 0,0 |
| 7312 | 1807 | 1805 | 2 | 2685 | 1,5 | 50,4 | 33,8 | 397 | 0,2 | 3,5 | 16,0 |
| 7313 | 721 | 720 | 1 | 17932 | 24,9 | 602,9 | 24,2 | 1757 | 2,4 | 23,1 | 9,5 |
| 7314 | 386 | 382 | 4 | 3953 | 10,2 | 81,6 | 8,0 | 1230 | 3,2 | 16,5 | 5,1 |
| 7315 | 322 | 319 | 3 | 6996 | 21,7 | 118,6 | 5,5 | 3691 | 11,6 | 43,1 | 3,7 |
| 7316 | 246 | 244 | 2 | 27985 | 113,8 | 724,3 | 6,4 | 14523 | 59,5 | 205,4 | 3,5 |
| 7321 | 121 | 121 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 7322 | 8 |  | 8 | 0 | 0,0 | 0,0 | 0,0 | 0 |  |  |  |
| 7323 | 15 | 14 | 1 | 35 | 2,3 | 7,3 | 3,1 | 7 | 0,5 | 1,9 | 3,7 |
| 7324 | 25 | 24 | 1 | 2 | 0,1 | 0,4 | 5,0 | 0 | 0,0 | 0,0 | 0,0 |
| 7325 | 80 | 79 | 1 | 425 | 5,3 | 22,5 | 4,2 | 243 | 3,1 | 10,3 | 3,4 |
| 7326 | 133 | 131 | 2 | 6573 | 49,4 | 205,5 | 4,2 | 3629 | 27,7 | 77,7 | 2,8 |
| 7411 | 633 | 632 | 1 | 6907 | 10,9 | 233,9 | 21,4 | 1049 | 1,7 | 23,2 | 14,0 |
| 7412 | 16202 | 16187 | 15 | 133721 | 8,3 | 402,6 | 48,8 | 25737 | 1,6 | 25,0 | 15,7 |
| 7413 | 7356 | 7344 | 12 | 196053 | 26,7 | 782,8 | 29,4 | 53391 | 7,3 | 82,4 | 11,3 |
| 7414 | 4182 | 4179 | 3 | 287003 | 68,6 | 2358,9 | 34,4 | 55372 | 13,3 | 145,9 | 11,0 |
| 7415 | 3581 | 3566 | 15 | 282855 | 79,0 | 1171,9 | 14,8 | 77953 | 21,9 | 143,5 | 6,6 |
| 7416 | 2573 | 2563 | 10 | 662523 | 257,5 | 3692,3 | 14,3 | 215292 | 84,0 | 507,2 | 6,0 |
| 7421 | 2552 | 2551 | 1 | 639 | 0,3 | 12,1 | 48,2 | 26 | 0,0 | 0,4 | 42,0 |
| 7422 | 114 | 112 | 2 | 910 | 8,0 | 59,9 | 7,5 | 3 | 0,0 | 0,3 | 9,3 |
| 7423 | 140 | 137 | 3 | 21744 | 155,3 | 1141,6 | 7,4 | 11 | 0,1 | 0,7 | 8,6 |
| 7424 | 81 | 80 | 1 | 1278 | 15,8 | 109,9 | 7,0 | 330 | 4,1 | 33,0 | 8,0 |
| 7425 | 60 | 57 | 3 | 1315 | 21,9 | 64,6 | 2,9 | 482 | 8,5 | 24,9 | 2,9 |
| 7426 | 81 | 80 | 1 | 85015 | 1049,6 | 7333,6 | 7,0 | 20708 | 258,9 | 1782,5 | 6,9 |
| 7512 | 53 | 52 | 1 | 24 | 0,5 | 3,3 | 7,3 | 0 | 0,0 | 0,0 | 0,0 |
| 7513 | 47 | 46 | 1 | 111 | 2,4 | 15,3 | 6,5 | 6 | 0,1 | 0,9 | 6,8 |
| 7514 | 31 | 30 | 1 | 265 | 8,6 | 33,0 | 3,9 | 87 | 2,9 | 10,1 | 3,5 |
| 7515 | 51 | 50 | 1 | 814 | 16,0 | 99,6 | 6,2 | 104 | 2,1 | 9,3 | 4,5 |
| 7516 | 32 | 31 | 1 | 27362 | 855,1 | 3034,0 | 3,5 | 12118 | 390,9 | 1545,3 | 4,0 |
| 7521 | 20529 | 20517 | 12 | 109670 | 5,3 | 342,9 | 64,2 | 1436 | 0,1 | 5,4 | 77,4 |
| 7522 | 1391 | 1371 | 20 | 36029 | 25,9 | 134,6 | 5,2 | 17878 | 13,0 | 51,0 | 3,9 |
| 7523 | 3671 | 3625 | 46 | 209634 | 57,1 | 401,4 | 7,0 | 77285 | 21,3 | 105,3 | 4,9 |
| 7524 | 5636 | 5606 | 30 | 283495 | 50,3 | 531,8 | 10,6 | 118062 | 21,1 | 98,9 | 4,7 |
| 7525 | 7235 | 7183 | 52 | 673252 | 93,1 | 788,2 | 8,5 | 288182 | 40,1 | 182,3 | 4,5 |
| 7526 | 5234 | 5202 | 32 | 2555303 | 488,2 | 5626,2 | 11,5 | 618050 | 118,8 | 768,3 | 6,5 |
| 8011 | 21 | 21 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 8012 | 735 | 730 | 5 | 838 | 1,1 | 16,5 | 14,5 | 44 | 0,1 | 1,0 | 15,8 |
| 8013 | 407 | 406 | 1 | 11540 | 28,4 | 496,3 | 17,5 | 1543 | 3,8 | 30,7 | 8,1 |
| 8014 | 294 | 287 | 7 | 1511 | 5,1 | 21,7 | 4,2 | 660 | 2,3 | 8,8 | 3,8 |
| 8015 | 298 | 292 | 6 | 4978 | 16,7 | 62,1 | 3,7 | 2663 | 9,1 | 25,9 | 2,8 |
| 8016 | 271 | 266 | 5 | 9696 | 35,8 | 96,6 | 2,7 | 6945 | 26,1 | 51,1 | 2,0 |
| 8021 | 32066 | 32053 | 13 | 4700 | 0,2 | 12,7 | 84,9 | 321 | 0,0 | 0,6 | 55,0 |
| 8022 | 117 | 115 | 2 | 71 | 0,6 | 3,8 | 6,3 | 14 | 0,1 | 0,9 | 7,7 |
| 8023 | 197 | 195 | 2 | 213 | 1,1 | 9,0 | 8,4 | 64 | 0,3 | 2,5 | 7,4 |
| 8024 | 302 | 301 | 1 | 121482 | 402,3 | 6944,2 | 17,3 | 804 | 2,7 | 13,0 | 4,9 |
| 8025 | 721 | 713 | 8 | 3626 | 5,0 | 31,1 | 6,2 | 1711 | 2,4 | 9,6 | 4,0 |
| 8026 | 1478 | 1477 | 1 | 69128 | 46,8 | 1416,7 | 30,3 | 14681 | 9,9 | 43,1 | 4,3 |
| 8511 | 27 | 27 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 8512 | 1400 | 1399 | 1 | 89324 | 63,8 | 2131,0 | 33,4 | 9723 | 7,0 | 127,2 | 18,3 |
| 8513 | 1022 | 1015 | 7 | 9570 | 9,4 | 109,7 | 11,7 | 1218 | 1,2 | 11,5 | 9,6 |
| 8514 | 749 | 747 | 2 | 18522 | 24,7 | 407,8 | 16,5 | 2951 | 4,0 | 32,3 | 8,2 |
| 8515 | 701 | 698 | 3 | 21168 | 30,2 | 337,2 | 11,2 | 7853 | 11,3 | 65,4 | 5,8 |
| 8516 | 497 | 489 | 8 | 53492 | 107,6 | 559,3 | 5,2 | 22768 | 46,6 | 154,1 | 3,3 |
| 8521 | 13839 | 13830 | 9 | 3905 | 0,3 | 18,4 | 65,7 | 138 | 0,0 | 0,5 | 48,0 |
| 8522 | 1086 | 1085 | 1 | 3501 | 3,2 | 104,6 | 32,5 | 54 | 0,1 | 1,2 | 24,0 |
| 8523 | 760 | 759 | 1 | 77134 | 101,5 | 2616,4 | 25,8 | 5047 | 6,7 | 96,7 | 14,5 |
| 8524 | 475 | 470 | 5 | 1407 | 3,0 | 29,5 | 10,0 | 230 | 0,5 | 2,7 | 5,6 |
| 8525 | 627 | 620 | 7 | 14243 | 22,7 | 198,9 | 8,8 | 3912 | 6,3 | 38,8 | 6,1 |
| 8526 | 1473 | 1470 | 3 | 63639 | 43,2 | 737,4 | 17,1 | 29900 | 20,3 | 109,9 | 5,4 |
| 9011 | 20 | 20 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9012 | 320 | 316 | 4 | 795 | 2,5 | 23,7 | 9,5 | 54 | 0,2 | 2,2 | 12,9 |
| 9013 | 154 | 152 | 2 | 310 | 2,0 | 13,9 | 6,9 | 68 | 0,5 | 2,8 | 6,3 |
| 9014 | 147 | 146 | 1 | 4379 | 29,8 | 254,2 | 8,5 | 1318 | 9,0 | 36,3 | 4,0 |
| 9015 | 224 | 219 | 5 | 8320 | 37,1 | 161,4 | 4,3 | 3401 | 15,5 | 50,4 | 3,2 |
| 9016 | 397 | 394 | 3 | 51753 | 130,4 | 601,0 | 4,6 | 36457 | 92,5 | 253,9 | 2,7 |
| 9021 | 75 | 74 | 1 | 578 | 7,7 | 66,7 | 8,7 | 0 | 0,0 | 0,0 | 0,0 |
| 9022 | 1 |  | 1 | 0 | 0,0 |  | 0,0 |  |  |  |  |
| 9023 | 1 |  | 1 | 0 | 0,0 |  | 0,0 |  |  |  |  |
| 9024 | 1 |  | 1 | 0 | 0,0 |  | 0,0 |  |  |  |  |
| 9112 | 66 | 66 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9113 | 28 | 28 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9114 | 18 | 17 | 1 | 7 | 0,4 | 1,7 | 4,2 | 0 | 0,0 | 0,0 | 0,0 |
| 9115 | 13 | 12 | 1 | 1 | 0,1 | 0,3 | 3,5 | 0 | 0,0 | 0,0 | 0,0 |
| 9116 | 7 |  | 7 | 200 | 28,6 | 61,9 | 2,2 |  |  |  |  |
| 9121 | 117662 | 117600 | 62 | 12649 | 0,1 | 7,3 | 66,3 | 0 | 0,0 | 0,1 | 0,0 |
| 9122 | 12842 | 12822 | 20 | 3089 | 0,2 | 8,8 | 36,7 | 128 | 0,0 | 0,3 | 30,0 |
| 9123 | 3618 | 3617 | 1 | 206822 | 57,2 | 3414,3 | 59,7 | 1447 | 0,4 | 14,6 | 36,5 |
| 9124 | 1174 | 1171 | 3 | 6495 | 5,5 | 119,8 | 21,7 | 527 | 0,5 | 8,3 | 18,4 |
| 9125 | 714 | 712 | 2 | 17245 | 24,2 | 482,5 | 20,0 | 1282 | 1,8 | 15,9 | 8,8 |
| 9126 | 362 | 357 | 5 | 5285 | 14,6 | 108,0 | 7,4 | 1067 | 3,0 | 22,0 | 7,3 |
| 9211 | 57 | 56 | 1 | 465 | 8,2 | 56,6 | 6,9 | 39 | 0,7 | 5,2 | 7,4 |
| 9212 | 2131 | 2124 | 7 | 56698 | 26,6 | 505,6 | 19,0 | 4312 | 2,0 | 32,1 | 15,8 |
| 9213 | 805 | 803 | 2 | 59696 | 74,2 | 1249,0 | 16,8 | 14815 | 18,5 | 157,8 | 8,6 |
| 9214 | 598 | 597 | 1 | 36167 | 60,5 | 942,0 | 15,6 | 13355 | 22,4 | 137,5 | 6,1 |
| 9215 | 555 | 550 | 5 | 29507 | 53,2 | 383,9 | 7,2 | 11754 | 21,4 | 90,7 | 4,2 |
| 9216 | 448 | 445 | 3 | 91049 | 203,2 | 1446,8 | 7,1 | 49698 | 111,7 | 348,9 | 3,1 |
| 9221 | 5488 | 5486 | 2 | 1695 | 0,3 | 20,1 | 64,8 | 110 | 0,0 | 0,9 | 42,5 |
| 9222 | 336 | 332 | 4 | 32 | 0,1 | 0,7 | 7,3 | 7 | 0,0 | 0,2 | 9,0 |
| 9223 | 257 | 253 | 4 | 62 | 0,2 | 1,6 | 6,8 | 15 | 0,1 | 0,4 | 6,3 |
| 9224 | 325 | 320 | 5 | 613 | 1,9 | 14,0 | 7,4 | 109 | 0,3 | 2,2 | 6,4 |
| 9225 | 634 | 622 | 12 | 3190 | 5,0 | 29,9 | 5,9 | 914 | 1,5 | 7,1 | 4,9 |
| 9226 | 827 | 814 | 13 | 19482 | 23,6 | 109,2 | 4,6 | 10102 | 12,4 | 39,6 | 3,2 |
| 9311 | 39 | 39 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9312 | 1089 | 1085 | 4 | 4301 | 4,0 | 58,7 | 14,9 | 890 | 0,8 | 9,1 | 11,1 |
| 9313 | 621 | 617 | 4 | 3699 | 6,0 | 67,2 | 11,3 | 1055 | 1,7 | 13,1 | 7,7 |
| 9314 | 536 | 535 | 1 | 10636 | 19,8 | 366,9 | 18,5 | 2204 | 4,1 | 45,0 | 10,9 |
| 9315 | 614 | 613 | 1 | 33212 | 54,1 | 1047,0 | 19,4 | 7399 | 12,1 | 109,4 | 9,1 |
| 9316 | 336 | 331 | 5 | 16942 | 50,4 | 261,2 | 5,2 | 7404 | 22,4 | 85,5 | 3,8 |
| 9321 | 96 | 96 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9322 | 43 | 43 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9323 | 41 | 40 | 1 | 23379 | 570,2 | 3651,2 | 6,4 | 0 | 0,0 | 0,0 | 0,0 |
| 9324 | 48 | 48 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9325 | 65 | 65 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| 9326 | 12 | 12 | 0 | 0 | 0,0 | 0,0 | 0,0 | 0 | 0,0 | 0,0 | 0,0 |
| Total | 624968 | 622815 | 2153 | – | – | – | – | – | – | – | – |

∙ Small strata are highlighted in grey

**Annex** **I**

**Simulation study of Horwitz-Thompson and regression estimator properties by Monte Carlo method based on the 2009 data**

We will conduct simulation study for:

1) a part of the population of small-sized enterprises that are included into the population with probability lower than one;

2) for all small-sized enterprises;

3) for enterprises of all sizes.

In this case outliers, small-strata enterprises as well as large- and medium-sized enterprises will be included into replicates with probability equalling 1. New enterprises do not take part in the simulation study since they do not have economic indicators.

For the purpose of simulation study of a part of population of small-sized enterprises that are included into the sample with probability lower than one, a file should be generated at first in the following way. 2153 enterprises have to be excluded from the database containing small-sized enterprises (624968 units) recognised as such by law:

1. Outliers by three sigma method – 236 enterprises.
2. Small-strata enterprises (10 elements) – 1917 enterprises.

Preparation of this database involves an iteration procedure, since small strata are detected at first from the main subpopulation, then outlier units are detected from the remaining strata into a separate population. After this small strata are detected again as well as outliers. This procedure runs until outliers and small strata are completely excluded from the population. A database of 622815 enterprises was generated as a result.

To obtain reliability indicators for all small-sized enterprises, at the first stage outliers and small-strata enterprises are added to the generated simulation study, which is followed by a study similar to that described in the first case.

Medium- and large-sized entries are added for enterprises of all sizes to a second-stage generated file, then simulation study takes place.

Please see below results of ARB and RRMSE calculations for different attributes of capital investment survey by economic activities, regions and institutional sectors of economy (Tables I.1 – I.18).

Table I.1

**ARB and RRMSE of Horwitz-Thompson and regression estimator by economic activities**

**for g26**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE economic activity code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 0,00 | 0,03 | 3,52 | 3,49 | 0,00 | 0,02 | 2,19 | 2,18 | 0,00 | 0,00 | 0,47 | 0,47 |
| 2 | 0,36 | 0,18 | 47,05 | 46,47 | 0,21 | 0,11 | 27,77 | 27,43 | 0,01 | 0,01 | 1,32 | 1,31 |
| 5 | 4,30 | 4,04 | 70,43 | 70,33 | 1,37 | 1,29 | 22,53 | 22,49 | 0,14 | 0,13 | 2,29 | 2,28 |
| 10 | 3,60 | 3,52 | 38,36 | 38,72 | 0,78 | 0,76 | 8,32 | 8,40 | 0,00 | 0,00 | 0,03 | 0,03 |
| 11 | 0,01 | 0,01 | 0,21 | 0,21 | 0,00 | 0,00 | 0,08 | 0,08 | 0,00 | 0,00 | 0,01 | 0,01 |
| 14 | 0,24 | 0,13 | 23,47 | 23,46 | 0,10 | 0,05 | 10,04 | 10,04 | 0,01 | 0,01 | 1,13 | 1,13 |
| 15 | 0,20 | 0,24 | 15,56 | 15,43 | 0,05 | 0,06 | 3,95 | 3,92 | 0,00 | 0,00 | 0,31 | 0,31 |
| 17 | 1,52 | 1,30 | 49,83 | 49,38 | 0,76 | 0,65 | 24,79 | 24,57 | 0,08 | 0,06 | 2,48 | 2,46 |
| 18 | 8,07 | 7,99 | 60,54 | 60,63 | 1,19 | 1,18 | 8,97 | 8,98 | 0,43 | 0,42 | 3,20 | 3,21 |
| 19 | 0,74 | 0,93 | 78,22 | 77,32 | 0,34 | 0,43 | 35,92 | 35,50 | 0,02 | 0,02 | 1,88 | 1,86 |
| 20 | 1,11 | 1,14 | 28,04 | 28,04 | 0,33 | 0,34 | 8,39 | 8,39 | 0,05 | 0,05 | 1,33 | 1,33 |
| 21 | 1,76 | 1,82 | 30,24 | 29,91 | 0,91 | 0,95 | 15,75 | 15,57 | 0,04 | 0,04 | 0,64 | 0,63 |
| 22 | 1,74 | 1,86 | 39,07 | 38,98 | 0,58 | 0,62 | 12,99 | 12,96 | 0,13 | 0,14 | 2,85 | 2,84 |
| 23 | 0,03 | 0,03 | 0,69 | 0,70 | 0,03 | 0,03 | 0,64 | 0,65 | 0,00 | 0,00 | 0,02 | 0,02 |
| 24 | 0,68 | 0,67 | 22,12 | 21,67 | 0,32 | 0,32 | 10,40 | 10,19 | 0,01 | 0,01 | 0,31 | 0,30 |
| 25 | 0,02 | 0,14 | 15,91 | 15,83 | 0,01 | 0,07 | 8,22 | 8,18 | 0,00 | 0,02 | 1,81 | 1,80 |
| 26 | 0,15 | 0,21 | 16,55 | 16,48 | 0,08 | 0,11 | 9,17 | 9,13 | 0,00 | 0,00 | 0,39 | 0,39 |
| 27 | 0,54 | 0,70 | 27,07 | 26,71 | 0,28 | 0,37 | 14,37 | 14,18 | 0,00 | 0,00 | 0,10 | 0,10 |
| 28 | 0,48 | 0,55 | 19,11 | 19,05 | 0,14 | 0,16 | 5,63 | 5,61 | 0,03 | 0,04 | 1,29 | 1,29 |
| 29 | 0,72 | 0,87 | 29,98 | 29,87 | 0,29 | 0,36 | 12,25 | 12,21 | 0,01 | 0,02 | 0,61 | 0,61 |
| 30 | 0,65 | 0,64 | 51,62 | 51,91 | 0,26 | 0,26 | 20,83 | 20,95 | 0,05 | 0,05 | 4,16 | 4,18 |
| 31 | 1,48 | 1,26 | 35,67 | 35,28 | 0,76 | 0,65 | 18,31 | 18,11 | 0,04 | 0,04 | 1,00 | 0,98 |
| 32 | 0,31 | 0,21 | 53,83 | 53,25 | 0,09 | 0,06 | 15,37 | 15,21 | 0,00 | 0,00 | 0,46 | 0,46 |
| 33 | 1,11 | 0,93 | 51,62 | 51,43 | 0,51 | 0,43 | 23,58 | 23,49 | 0,03 | 0,03 | 1,62 | 1,61 |
| 34 | 1,15 | 1,54 | 44,28 | 43,18 | 0,17 | 0,23 | 6,76 | 6,59 | 0,02 | 0,03 | 0,87 | 0,85 |
| 35 | 4,27 | 4,20 | 44,88 | 44,82 | 0,36 | 0,35 | 3,76 | 3,75 | 0,04 | 0,04 | 0,44 | 0,44 |
| 36 | 0,38 | 0,30 | 45,78 | 45,69 | 0,15 | 0,12 | 18,02 | 17,99 | 0,03 | 0,02 | 3,30 | 3,29 |
| 37 | 0,82 | 0,69 | 47,93 | 48,46 | 0,31 | 0,26 | 18,30 | 18,50 | 0,10 | 0,09 | 6,10 | 6,16 |
| 40 | 0,05 | 0,03 | 30,99 | 30,71 | 0,02 | 0,01 | 12,84 | 12,73 | 0,00 | 0,00 | 0,20 | 0,19 |
| 41 | 0,18 | 0,08 | 45,76 | 45,98 | 0,05 | 0,02 | 13,75 | 13,82 | 0,00 | 0,00 | 1,06 | 1,07 |
| 45 | 0,04 | 0,03 | 6,31 | 6,31 | 0,01 | 0,01 | 1,73 | 1,73 | 0,00 | 0,00 | 0,78 | 0,78 |
| 50 | 0,08 | 0,05 | 11,04 | 10,95 | 0,04 | 0,03 | 5,78 | 5,74 | 0,01 | 0,01 | 1,12 | 1,11 |
| 51 | 0,09 | 0,09 | 6,19 | 6,18 | 0,03 | 0,03 | 2,29 | 2,29 | 0,01 | 0,01 | 0,70 | 0,70 |
| 52 | 0,68 | 0,70 | 16,09 | 16,06 | 0,27 | 0,28 | 6,39 | 6,38 | 0,03 | 0,03 | 0,71 | 0,71 |
| 55 | 0,36 | 0,35 | 16,79 | 16,78 | 0,13 | 0,12 | 6,04 | 6,03 | 0,05 | 0,05 | 2,45 | 2,44 |
| 60 | 0,24 | 0,25 | 12,68 | 12,60 | 0,11 | 0,12 | 5,95 | 5,91 | 0,01 | 0,01 | 0,73 | 0,73 |
| 61 | 0,63 | 0,63 | 18,15 | 18,15 | 0,52 | 0,51 | 14,82 | 14,82 | 0,07 | 0,07 | 1,95 | 1,95 |
| 62 | 0,87 | 1,04 | 53,87 | 51,97 | 0,03 | 0,04 | 1,89 | 1,82 | 0,00 | 0,00 | 0,03 | 0,03 |
| 63 | 0,05 | 0,07 | 15,76 | 15,67 | 0,02 | 0,02 | 5,22 | 5,18 | 0,00 | 0,00 | 0,29 | 0,29 |
| 64 | 0,57 | 0,51 | 15,39 | 15,34 | 0,31 | 0,27 | 8,24 | 8,22 | 0,00 | 0,00 | 0,11 | 0,11 |
| 65 | 0,56 | 0,57 | 6,99 | 6,98 | 0,13 | 0,13 | 1,62 | 1,62 | 0,03 | 0,03 | 0,34 | 0,34 |
| 66 | 1,50 | 1,47 | 28,59 | 28,30 | 0,64 | 0,63 | 12,22 | 12,10 | 0,19 | 0,19 | 3,69 | 3,65 |
| 67 | 3,21 | 3,14 | 62,47 | 61,61 | 0,22 | 0,21 | 4,27 | 4,21 | 0,19 | 0,19 | 3,77 | 3,71 |
| 70 | 0,07 | 0,07 | 1,89 | 1,89 | 0,02 | 0,03 | 0,69 | 0,69 | 0,01 | 0,01 | 0,33 | 0,33 |
| 71 | 0,41 | 0,40 | 4,84 | 4,83 | 0,14 | 0,13 | 1,64 | 1,64 | 0,07 | 0,07 | 0,89 | 0,89 |
| 72 | 1,45 | 1,40 | 35,50 | 35,18 | 0,66 | 0,64 | 16,19 | 16,04 | 0,18 | 0,18 | 4,45 | 4,41 |
| 73 | 0,91 | 0,92 | 36,35 | 36,53 | 0,35 | 0,35 | 13,90 | 13,97 | 0,06 | 0,07 | 2,57 | 2,59 |
| 74 | 0,52 | 0,51 | 12,59 | 12,58 | 0,14 | 0,14 | 3,37 | 3,37 | 0,04 | 0,04 | 1,03 | 1,03 |
| 75 | 0,15 | 0,17 | 5,34 | 5,32 | 0,04 | 0,05 | 1,55 | 1,55 | 0,02 | 0,02 | 0,74 | 0,74 |
| 80 | 1,06 | 1,02 | 37,79 | 37,59 | 0,14 | 0,13 | 4,91 | 4,89 | 0,02 | 0,02 | 0,67 | 0,67 |
| 85 | 0,66 | 0,65 | 29,56 | 29,47 | 0,16 | 0,15 | 6,96 | 6,94 | 0,03 | 0,03 | 1,30 | 1,30 |
| 90 | 0,93 | 0,91 | 23,93 | 23,76 | 0,58 | 0,57 | 14,94 | 14,84 | 0,15 | 0,15 | 3,93 | 3,90 |
| 91 | 5,48 | 5,18 | 216,69 | 216,50 | 0,10 | 0,09 | 3,95 | 3,95 | 0,09 | 0,09 | 3,65 | 3,65 |
| 92 | 0,20 | 0,20 | 21,49 | 21,54 | 0,07 | 0,07 | 7,57 | 7,59 | 0,01 | 0,01 | 0,88 | 0,88 |
| 93 | 4,59 | 4,55 | 56,70 | 56,55 | 0,94 | 0,93 | 11,66 | 11,63 | 0,74 | 0,73 | 9,07 | 9,05 |
| Total on the population | 0,03 | 0,03 | 1,58 | 1,58 | 0,02 | 0,02 | 0,99 | 0,98 | 0,00 | 0,00 | 0,21 | 0,21 |

Table I.2

**ARB and RRMSE of Horwitz-Thompson and regression estimator by regions**

**for g26** (%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COATSU region code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 0,36 | 0,20 | 9,15 | 8,48 | 0,11 | 0,06 | 2,83 | 2,63 | 0,04 | 0,02 | 1,08 | 1,01 |
| 5 | 0,05 | 0,01 | 12,01 | 11,45 | 0,03 | 0,01 | 6,32 | 6,02 | 0,00 | 0,00 | 0,84 | 0,81 |
| 7 | 1,23 | 1,14 | 9,73 | 8,74 | 0,76 | 0,71 | 6,03 | 5,42 | 0,08 | 0,07 | 0,60 | 0,54 |
| 12 | 0,08 | 0,46 | 7,21 | 6,92 | 0,03 | 0,15 | 2,28 | 2,19 | 0,00 | 0,01 | 0,12 | 0,12 |
| 14 | 0,58 | 0,45 | 8,96 | 8,74 | 0,17 | 0,13 | 2,59 | 2,53 | 0,00 | 0,00 | 0,07 | 0,07 |
| 18 | 0,96 | 1,03 | 14,23 | 13,65 | 0,42 | 0,46 | 6,30 | 6,04 | 0,06 | 0,06 | 0,88 | 0,85 |
| 21 | 1,04 | 0,59 | 13,56 | 13,41 | 0,38 | 0,21 | 4,97 | 4,92 | 0,06 | 0,03 | 0,73 | 0,72 |
| 23 | 2,27 | 1,59 | 8,61 | 8,54 | 1,25 | 0,88 | 4,75 | 4,71 | 0,10 | 0,07 | 0,40 | 0,39 |
| 26 | 0,74 | 1,44 | 10,17 | 9,52 | 0,35 | 0,68 | 4,81 | 4,51 | 0,05 | 0,09 | 0,65 | 0,61 |
| 32 | 1,26 | 1,27 | 6,86 | 7,08 | 0,39 | 0,39 | 2,13 | 2,20 | 0,02 | 0,02 | 0,12 | 0,13 |
| 35 | 0,00 | 1,22 | 12,06 | 11,47 | 0,00 | 0,50 | 4,96 | 4,72 | 0,00 | 0,06 | 0,55 | 0,52 |
| 44 | 1,35 | 1,42 | 10,21 | 10,09 | 0,51 | 0,54 | 3,86 | 3,81 | 0,04 | 0,04 | 0,28 | 0,28 |
| 46 | 0,85 | 0,36 | 6,21 | 6,24 | 0,28 | 0,12 | 2,09 | 2,10 | 0,03 | 0,01 | 0,20 | 0,20 |
| 48 | 1,67 | 2,03 | 10,59 | 9,78 | 0,85 | 1,04 | 5,42 | 5,00 | 0,09 | 0,11 | 0,55 | 0,51 |
| 51 | 0,78 | 0,15 | 6,66 | 6,42 | 0,25 | 0,05 | 2,13 | 2,05 | 0,02 | 0,00 | 0,18 | 0,17 |
| 53 | 0,56 | 0,33 | 7,46 | 6,75 | 0,27 | 0,16 | 3,65 | 3,30 | 0,02 | 0,01 | 0,30 | 0,27 |
| 56 | 0,73 | 0,01 | 12,92 | 12,66 | 0,25 | 0,00 | 4,48 | 4,39 | 0,03 | 0,00 | 0,47 | 0,46 |
| 59 | 0,24 | 0,06 | 10,48 | 10,16 | 0,16 | 0,04 | 6,71 | 6,51 | 0,02 | 0,00 | 0,72 | 0,70 |
| 61 | 1,08 | 1,11 | 7,65 | 6,66 | 0,66 | 0,68 | 4,65 | 4,04 | 0,13 | 0,14 | 0,93 | 0,81 |
| 63 | 0,05 | 0,27 | 6,54 | 6,30 | 0,02 | 0,10 | 2,43 | 2,34 | 0,00 | 0,01 | 0,21 | 0,21 |
| 65 | 4,52 | 2,46 | 11,71 | 10,85 | 2,48 | 1,35 | 6,41 | 5,94 | 0,41 | 0,22 | 1,06 | 0,98 |
| 68 | 1,57 | 1,23 | 9,27 | 9,29 | 1,07 | 0,84 | 6,31 | 6,33 | 0,12 | 0,10 | 0,74 | 0,74 |
| 71 | 1,29 | 1,54 | 9,70 | 8,92 | 0,73 | 0,87 | 5,47 | 5,02 | 0,10 | 0,12 | 0,75 | 0,69 |
| 73 | 0,03 | 1,35 | 16,11 | 15,44 | 0,01 | 0,39 | 4,71 | 4,51 | 0,00 | 0,05 | 0,54 | 0,52 |
| 74 | 1,22 | 1,39 | 10,04 | 9,05 | 0,77 | 0,88 | 6,33 | 5,71 | 0,11 | 0,12 | 0,89 | 0,80 |
| 80 | 0,28 | 0,32 | 4,01 | 3,86 | 0,07 | 0,08 | 0,98 | 0,94 | 0,00 | 0,00 | 0,05 | 0,04 |
| 85 | 0,48 | 1,96 | 14,89 | 14,05 | 0,10 | 0,39 | 2,96 | 2,79 | 0,01 | 0,04 | 0,27 | 0,25 |
| Total on the population | 0,35 | 0,07 | 1,67 | 1,47 | 0,11 | 0,02 | 0,52 | 0,46 | 0,04 | 0,01 | 0,20 | 0,17 |

Table I.3

**ARB and RRMSE of Horwitz-Thompson and regression estimator by institutional sectors of economy for g26**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CISE institutional sector of economy code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 0 | 8,54 | 0,11 | 16,39 | 10,47 | 2,85 | 0,04 | 5,47 | 3,50 | 0,60 | 0,01 | 1,16 | 0,74 |
| 11 | 3,97 | 2,03 | 10,48 | 10,27 | 1,48 | 0,76 | 3,91 | 3,83 | 0,07 | 0,04 | 0,19 | 0,19 |
| 12 | 0,19 | 0,15 | 1,82 | 1,84 | 0,07 | 0,06 | 0,71 | 0,71 | 0,02 | 0,01 | 0,15 | 0,16 |
| 13 | 0,44 | 0,35 | 5,67 | 5,39 | 0,10 | 0,08 | 1,34 | 1,27 | 0,02 | 0,02 | 0,26 | 0,25 |
| 23 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 0,40 | 0,00 | 0,40 | 0,00 |
| 24 | 0,36 | 0,12 | 2,22 | 2,13 | 0,11 | 0,03 | 0,66 | 0,63 | 0,01 | 0,00 | 0,09 | 0,09 |
| 25 | – | – | – | – | – | – | – | – | – | – | – | – |
| 27 | 17,87 | 8,64 | 168,98 | 151,00 | 2,70 | 1,31 | 25,55 | 22,84 | 2,44 | 1,18 | 23,04 | 20,59 |
| 28 | 2,36 | 1,38 | 14,65 | 14,34 | 0,34 | 0,20 | 2,10 | 2,06 | 0,27 | 0,16 | 1,68 | 1,64 |
| 29 | 39,76 | 0,62 | 41,00 | 9,96 | 29,39 | 0,46 | 30,31 | 7,36 | 17,69 | 0,28 | 18,24 | 4,43 |
| 31 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 47,28 | 0,00 | 47,28 | 0,00 |
| 32 | 13,93 | 3,95 | 61,94 | 61,44 | 0,37 | 0,10 | 1,64 | 1,63 | 0,32 | 0,09 | 1,41 | 1,40 |
| 33 | 63,98 | 4,02 | 91,45 | 57,44 | 51,70 | 3,25 | 73,90 | 46,42 | 12,29 | 0,77 | 17,56 | 11,03 |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | 6,56 | 6,53 | 30,91 | 31,33 | 2,82 | 2,81 | 13,28 | 13,47 | 0,89 | 0,89 | 4,21 | 4,27 |
| 37 | 30,15 | 14,40 | 152,52 | 121,48 | 17,56 | 8,39 | 88,83 | 70,75 | 3,58 | 1,71 | 18,12 | 14,43 |
| 41 | 2,37 | 2,16 | 10,34 | 10,38 | 0,38 | 0,35 | 1,68 | 1,69 | 0,15 | 0,13 | 0,63 | 0,64 |
| 42 | 0,59 | 0,46 | 6,47 | 6,53 | 0,26 | 0,20 | 2,88 | 2,91 | 0,10 | 0,08 | 1,13 | 1,14 |
| 43 | 6,10 | 6,53 | 29,12 | 29,29 | 6,10 | 6,53 | 29,12 | 29,29 | 1,81 | 1,94 | 8,63 | 8,68 |
| 60 | 2,72 | 1,56 | 63,28 | 61,53 | 0,16 | 0,09 | 3,61 | 3,51 | 0,12 | 0,07 | 2,76 | 2,69 |
| 99 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 |
| Total on the population | 0,61 | 0,15 | 1,59 | 1,46 | 0,20 | 0,05 | 0,53 | 0,49 | 0,01 | 0,01 | 0,04 | 0,10 |

Table К.4

**ARB and RRMSE of Horwitz-Thompson and regression estimator by economic activities**

**for g27**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE economic activity code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 26,01 | 26,17 | 118,88 | 118,87 | 0,42 | 0,42 | 1,90 | 1,90 | 0,37 | 0,37 | 1,69 | 1,69 |
| 2 | – | – | – | – | – | – | – | – | – | – | – | – |
| 5 | – | – | – | – | – | – | – | – | – | – | – | – |
| 10 | – | – | – | – | – | – | – | – | – | – | – | – |
| 11 | – | – | – | – | – | – | – | – | – | – | – | – |
| 14 | 46,48 | 45,82 | 315,54 | 315,54 | 1,98 | 1,95 | 13,45 | 13,45 | 1,65 | 1,63 | 11,20 | 11,20 |
| 15 | 13,89 | 13,68 | 68,76 | 68,73 | 1,50 | 1,48 | 7,43 | 7,42 | 0,14 | 0,14 | 0,70 | 0,70 |
| 17 | – | – | – | – | – | – | – | – | – | – | – | – |
| 18 | – | – | – | – | – | – | – | – | – | – | – | – |
| 19 | – | – | – | – | – | – | – | – | – | – | – | – |
| 20 | 0,80 | 1,17 | 329,21 | 328,64 | 0,01 | 0,01 | 3,68 | 3,68 | 0,00 | 0,01 | 1,81 | 1,81 |
| 21 | – | – | – | – | – | – | – | – | – | – | – | – |
| 22 | 150,29 | 151,91 | 1027,71 | 1024,76 | 0,06 | 0,06 | 0,40 | 0,40 | 0,06 | 0,06 | 0,40 | 0,40 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | – | – | – | – | – | – | – | – | – | – | – | – |
| 25 | 81,14 | 79,87 | 740,27 | 740,44 | 0,37 | 0,36 | 3,38 | 3,38 | 0,16 | 0,15 | 1,42 | 1,42 |
| 26 | 38,95 | 39,85 | 358,13 | 358,04 | 0,18 | 0,18 | 1,66 | 1,66 | 0,03 | 0,03 | 0,27 | 0,27 |
| 27 | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | 100,00 | 99,48 | 100,00 | 99,74 | 3,31 | 3,30 | 3,31 | 3,31 | 1,09 | 1,08 | 1,09 | 1,08 |
| 29 | – | – | – | – | – | – | – | – | – | – | – | – |
| 30 | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | – | – | – | – | – | – | – | – | – | – | – | – |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 34 | 0,95 | 1,06 | 128,85 | 128,63 | 0,29 | 0,33 | 39,61 | 39,54 | 0,29 | 0,33 | 39,61 | 39,54 |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | – | – | – | – | – | – | – | – | – | – | – | – |
| 37 | 28,57 | 27,87 | 316,23 | 316,51 | 0,20 | 0,19 | 2,17 | 2,17 | 0,03 | 0,03 | 0,36 | 0,36 |
| 40 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | – | – | – | – | – | – | – | – | – | – | – | – |
| 45 | 0,00 | 0,01 | 19,76 | 19,74 | 0,00 | 0,00 | 0,48 | 0,48 | 0,00 | 0,00 | 0,47 | 0,47 |
| 50 | 21,59 | 21,62 | 59,51 | 59,60 | 2,09 | 2,09 | 5,75 | 5,76 | 0,69 | 0,69 | 1,90 | 1,90 |
| 51 | 1,71 | 1,68 | 15,42 | 15,39 | 0,07 | 0,06 | 0,59 | 0,59 | 0,05 | 0,05 | 0,44 | 0,44 |
| 52 | 6,99 | 7,02 | 152,64 | 152,98 | 0,41 | 0,42 | 9,05 | 9,07 | 0,02 | 0,02 | 0,38 | 0,38 |
| 55 | 1,63 | 1,57 | 36,29 | 36,36 | 0,13 | 0,13 | 2,90 | 2,90 | 0,07 | 0,07 | 1,59 | 1,59 |
| 60 | 26,99 | 27,32 | 191,42 | 191,22 | 1,16 | 1,18 | 8,25 | 8,24 | 0,19 | 0,19 | 1,33 | 1,32 |
| 61 | – | – | – | – | – | – | – | – | – | – | – | – |
| 62 | – | – | – | – | – | – | – | – | – | – | – | – |
| 63 | 6,37 | 6,40 | 26,15 | 26,20 | 0,70 | 0,70 | 2,87 | 2,88 | 0,54 | 0,55 | 2,24 | 2,24 |
| 64 | 27,14 | 26,88 | 517,17 | 516,73 | 1,82 | 1,80 | 34,66 | 34,63 | 0,30 | 0,30 | 5,72 | 5,72 |
| 65 | – | – | – | – | – | – | – | – | – | – | – | – |
| 66 | – | – | – | – | – | – | – | – | – | – | – | – |
| 67 | – | – | – | – | – | – | – | – | – | – | – | – |
| 70 | 1,20 | 1,22 | 13,93 | 13,92 | 0,10 | 0,11 | 1,20 | 1,20 | 0,06 | 0,06 | 0,70 | 0,70 |
| 71 | 9,61 | 9,60 | 234,01 | 234,63 | 0,26 | 0,26 | 6,40 | 6,41 | 0,26 | 0,26 | 6,40 | 6,41 |
| 72 | – | – | – | – | – | – | – | – | – | – | – | – |
| 73 | – | – | – | – | – | – | – | – | – | – | – | – |
| 74 | 16,46 | 16,60 | 156,69 | 156,71 | 0,21 | 0,21 | 2,02 | 2,02 | 0,15 | 0,15 | 1,43 | 1,43 |
| 75 | 10,87 | 10,40 | 435,22 | 435,38 | 0,36 | 0,35 | 14,49 | 14,50 | 0,08 | 0,08 | 3,38 | 3,38 |
| 80 | – | – | – | – | – | – | – | – | – | – | – | – |
| 85 | 100,00 | 99,04 | 100,00 | 99,22 | 0,50 | 0,50 | 0,50 | 0,50 | 0,08 | 0,08 | 0,08 | 0,08 |
| 90 | – | – | – | – | – | – | – | – | – | – | – | – |
| 91 | – | – | – | – | – | – | – | – | – | – | – | – |
| 92 | 13,79 | 13,65 | 502,89 | 502,51 | 0,17 | 0,16 | 6,06 | 6,05 | 0,02 | 0,02 | 0,68 | 0,68 |
| 93 | – | – | – | – | – | – | – | – | – | – | – | – |
| Total on the population | 0,76 | 0,75 | 8,33 | 8,32 | 0,01 | 0,01 | 0,13 | 0,13 | 0,01 | 0,01 | 0,12 | 0,12 |

Table I.5

**ARB and RRMSE of Horwitz-Thompson and regression estimator by regions**

**for g27**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COATSU region code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 18,96 | 18,93 | 55,70 | 54,77 | 0,26 | 0,26 | 0,75 | 0,74 | 0,22 | 0,22 | 0,66 | 0,65 |
| 5 | 8,74 | 6,84 | 22,64 | 20,70 | 2,30 | 1,80 | 5,96 | 5,45 | 0,94 | 0,73 | 2,43 | 2,22 |
| 7 | 11,48 | 13,81 | 113,09 | 111,84 | 3,33 | 4,00 | 32,80 | 32,43 | 1,26 | 1,52 | 12,45 | 12,31 |
| 12 | 2,92 | 2,18 | 31,01 | 31,00 | 0,82 | 0,61 | 8,72 | 8,71 | 0,44 | 0,33 | 4,65 | 4,65 |
| 14 | 1,65 | 3,31 | 74,80 | 74,32 | 0,04 | 0,09 | 1,98 | 1,97 | 0,03 | 0,05 | 1,15 | 1,14 |
| 18 | 1,64 | 3,42 | 69,68 | 66,64 | 0,20 | 0,42 | 8,49 | 8,12 | 0,19 | 0,39 | 7,94 | 7,60 |
| 21 | 17,75 | 19,03 | 78,74 | 77,92 | 1,61 | 1,73 | 7,14 | 7,07 | 0,97 | 1,04 | 4,31 | 4,27 |
| 23 | 18,87 | 18,26 | 84,52 | 82,65 | 6,18 | 5,99 | 27,70 | 27,09 | 2,87 | 2,78 | 12,88 | 12,59 |
| 26 | 11,66 | 10,96 | 65,66 | 66,69 | 1,08 | 1,02 | 6,10 | 6,19 | 0,65 | 0,61 | 3,63 | 3,69 |
| 32 | 1,79 | 1,42 | 33,08 | 33,20 | 0,14 | 0,11 | 2,60 | 2,61 | 0,10 | 0,08 | 1,79 | 1,80 |
| 35 | 0,37 | 0,05 | 15,19 | 13,98 | 0,06 | 0,01 | 2,26 | 2,08 | 0,00 | 0,00 | 0,17 | 0,16 |
| 44 | 2,60 | 1,75 | 95,12 | 94,50 | 0,53 | 0,36 | 19,38 | 19,26 | 0,24 | 0,16 | 8,68 | 8,63 |
| 46 | 3,43 | 3,37 | 13,97 | 13,86 | 0,76 | 0,75 | 3,09 | 3,07 | 0,38 | 0,37 | 1,54 | 1,53 |
| 48 | 2,61 | 2,48 | 27,24 | 27,20 | 0,31 | 0,30 | 3,28 | 3,27 | 0,18 | 0,17 | 1,87 | 1,86 |
| 51 | 5,76 | 5,45 | 30,00 | 30,23 | 0,07 | 0,07 | 0,36 | 0,36 | 0,06 | 0,06 | 0,33 | 0,33 |
| 53 | 5,74 | 4,21 | 43,78 | 42,84 | 2,60 | 1,90 | 19,82 | 19,39 | 0,68 | 0,50 | 5,20 | 5,09 |
| 56 | 1,80 | 0,72 | 50,17 | 49,28 | 0,45 | 0,18 | 12,62 | 12,39 | 0,16 | 0,07 | 4,60 | 4,51 |
| 59 | 0,91 | 1,18 | 120,03 | 120,01 | 0,75 | 0,97 | 98,82 | 98,80 | 0,20 | 0,27 | 27,04 | 27,03 |
| 61 | 20,53 | 17,45 | 64,02 | 59,76 | 11,34 | 9,64 | 35,36 | 33,01 | 3,33 | 2,83 | 10,38 | 9,69 |
| 63 | 12,40 | 13,09 | 70,64 | 71,45 | 0,44 | 0,46 | 2,49 | 2,52 | 0,29 | 0,31 | 1,66 | 1,68 |
| 65 | 4,11 | 3,40 | 35,89 | 35,93 | 0,79 | 0,65 | 6,88 | 6,89 | 0,54 | 0,45 | 4,73 | 4,73 |
| 68 | 0,96 | 1,68 | 110,55 | 112,05 | 0,24 | 0,43 | 28,10 | 28,48 | 0,03 | 0,04 | 2,92 | 2,96 |
| 71 | 1,60 | 0,12 | 100,02 | 101,42 | 0,19 | 0,01 | 11,64 | 11,80 | 0,06 | 0,00 | 3,67 | 3,72 |
| 73 | 6,14 | 2,56 | 176,61 | 179,33 | 0,09 | 0,04 | 2,53 | 2,57 | 0,08 | 0,03 | 2,18 | 2,22 |
| 74 | 7,05 | 9,80 | 55,64 | 54,28 | 5,23 | 7,27 | 41,27 | 40,26 | 2,06 | 2,86 | 16,25 | 15,86 |
| 80 | 0,27 | 0,41 | 15,41 | 15,26 | 0,00 | 0,01 | 0,23 | 0,23 | 0,00 | 0,00 | 0,14 | 0,14 |
| 85 | 33,72 | 33,74 | 269,55 | 265,63 | 18,84 | 18,86 | 150,65 | 148,46 | 0,91 | 0,92 | 7,31 | 7,21 |
| Total on the population | 0,98 | 1,18 | 6,56 | 6,41 | 0,01 | 0,02 | 0,09 | 0,09 | 0,01 | 0,01 | 0,08 | 0,08 |

Table I.6

**ARB and RRMSE of Horwitz-Thompson and regression estimator by institutional sectors of economy for g27**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CISE institutional sector of economy code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 0 | 7,54 | 0,39 | 136,78 | 131,48 | 0,05 | 0,00 | 0,85 | 0,82 | 0,02 | 0,00 | 0,40 | 0,39 |
| 11 | – | – | – | – | – | – | – | – | – | – | – | – |
| 12 | 2,08 | 2,08 | 9,98 | 10,00 | 0,09 | 0,09 | 0,41 | 0,41 | 0,05 | 0,05 | 0,26 | 0,26 |
| 13 | 5,47 | 5,52 | 28,64 | 28,47 | 0,45 | 0,45 | 2,36 | 2,34 | 0,23 | 0,23 | 1,21 | 1,20 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | – | – | – | – | – | – | – | – | – | – | – | – |
| 25 | – | – | – | – | – | – | – | – | – | – | – | – |
| 27 | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 29 | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | – | – | – | – | – | – | – | – | – | – | – | – |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | – | – | – | – | – | – | – | – | – | – | – | – |
| 37 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | 61,29 | 58,91 | 668,70 | 666,59 | 2,12 | 2,04 | 23,17 | 23,10 | 0,35 | 0,33 | 3,79 | 3,78 |
| 42 | 100,00 | 99,25 | 100,00 | 99,76 | 1,09 | 1,08 | 1,09 | 1,09 | 0,16 | 0,16 | 0,16 | 0,16 |
| 43 | – | – | – | – | – | – | – | – | – | – | – | – |
| 60 | – | – | – | – | – | – | – | – | – | – | – | – |
| 99 | – | – | – | – | – | – | – | – | – | – | – | – |
| Total on the population | 2,32 | 2,34 | 9,46 | 9,48 | 0,01 | 0,01 | 0,06 | 0,06 | 0,01 | 0,01 | 0,03 | 0,03 |

Table I.7

**ARB and RRMSE of Horwitz-Thompson and regression estimator by economic activities**

**for g28**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE economic activity code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 0,62 | 0,59 | 9,17 | 9,16 | 0,17 | 0,16 | 2,53 | 2,53 | 0,05 | 0,05 | 0,79 | 0,79 |
| 2 | – | – | – | – | – | – | – | – | – | – | – | – |
| 5 | 67,00 | 66,33 | 337,79 | 338,00 | 1,24 | 1,23 | 6,27 | 6,27 | 1,18 | 1,16 | 5,93 | 5,94 |
| 10 | – | – | – | – | – | – | – | – | – | – | – | – |
| 11 | 11,71 | 10,71 | 81,54 | 79,27 | 1,46 | 1,33 | 10,16 | 9,88 | 1,28 | 1,17 | 8,91 | 8,66 |
| 14 | 10,32 | 10,75 | 216,56 | 216,39 | 0,64 | 0,67 | 13,52 | 13,50 | 0,25 | 0,26 | 5,18 | 5,17 |
| 15 | 2,28 | 2,31 | 42,52 | 42,47 | 0,41 | 0,42 | 7,69 | 7,68 | 0,05 | 0,05 | 0,94 | 0,94 |
| 17 | 46,11 | 47,51 | 160,85 | 162,27 | 9,72 | 10,01 | 33,89 | 34,19 | 1,33 | 1,37 | 4,64 | 4,68 |
| 18 | – | – | – | – | – | – | – | – | – | – | – | – |
| 19 | – | – | – | – | – | – | – | – | – | – | – | – |
| 20 | 12,43 | 12,70 | 132,27 | 132,63 | 1,15 | 1,18 | 12,27 | 12,30 | 0,53 | 0,54 | 5,60 | 5,61 |
| 21 | 76,86 | 75,76 | 155,30 | 155,11 | 1,16 | 1,14 | 2,34 | 2,34 | 0,06 | 0,06 | 0,13 | 0,13 |
| 22 | 46,16 | 45,94 | 236,19 | 236,76 | 1,54 | 1,54 | 7,90 | 7,91 | 0,42 | 0,42 | 2,15 | 2,15 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | 5,43 | 5,04 | 108,95 | 109,71 | 0,54 | 0,50 | 10,83 | 10,91 | 0,02 | 0,02 | 0,47 | 0,47 |
| 25 | 25,41 | 25,20 | 224,51 | 224,77 | 1,80 | 1,78 | 15,86 | 15,88 | 0,26 | 0,26 | 2,33 | 2,33 |
| 26 | 13,42 | 13,86 | 79,69 | 80,14 | 1,24 | 1,28 | 7,38 | 7,42 | 0,29 | 0,30 | 1,70 | 1,71 |
| 27 | 109,70 | 109,99 | 300,01 | 301,07 | 4,56 | 4,57 | 12,47 | 12,51 | 0,10 | 0,10 | 0,28 | 0,28 |
| 28 | 1,11 | 1,32 | 42,12 | 42,56 | 0,21 | 0,25 | 7,83 | 7,91 | 0,09 | 0,11 | 3,35 | 3,39 |
| 29 | 21,47 | 21,34 | 170,19 | 171,05 | 0,54 | 0,54 | 4,29 | 4,31 | 0,18 | 0,18 | 1,41 | 1,42 |
| 30 | 14,29 | 15,84 | 136,28 | 134,44 | 2,24 | 2,49 | 21,39 | 21,10 | 1,21 | 1,35 | 11,57 | 11,42 |
| 31 | 16,79 | 15,58 | 249,47 | 249,01 | 0,63 | 0,58 | 9,29 | 9,28 | 0,12 | 0,12 | 1,85 | 1,85 |
| 32 | 8,57 | 8,06 | 224,12 | 221,22 | 0,09 | 0,08 | 2,29 | 2,26 | 0,07 | 0,07 | 1,88 | 1,86 |
| 33 | 37,84 | 38,09 | 94,10 | 94,32 | 6,61 | 6,66 | 16,44 | 16,48 | 1,31 | 1,32 | 3,27 | 3,27 |
| 34 | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | 6,00 | 6,00 | 215,70 | 215,67 | 0,35 | 0,35 | 12,57 | 12,57 | 0,02 | 0,02 | 0,68 | 0,68 |
| 37 | 4,35 | 5,41 | 78,11 | 77,33 | 1,06 | 1,31 | 18,99 | 18,80 | 0,21 | 0,26 | 3,73 | 3,70 |
| 40 | 1,56 | 0,70 | 78,05 | 77,77 | 0,24 | 0,11 | 11,96 | 11,92 | 0,04 | 0,02 | 1,78 | 1,78 |
| 41 | 90,48 | 89,34 | 98,40 | 97,63 | 3,84 | 3,79 | 4,17 | 4,14 | 0,24 | 0,24 | 0,26 | 0,26 |
| 45 | 2,27 | 2,15 | 35,83 | 35,77 | 0,30 | 0,29 | 4,77 | 4,76 | 0,17 | 0,16 | 2,67 | 2,67 |
| 50 | 5,82 | 5,96 | 61,87 | 61,64 | 0,75 | 0,77 | 8,02 | 7,99 | 0,06 | 0,07 | 0,69 | 0,68 |
| 51 | 7,50 | 7,49 | 25,06 | 25,01 | 0,81 | 0,81 | 2,70 | 2,70 | 0,31 | 0,31 | 1,04 | 1,04 |
| 52 | 6,78 | 6,75 | 34,07 | 34,00 | 0,92 | 0,92 | 4,63 | 4,62 | 0,20 | 0,20 | 1,00 | 1,00 |
| 55 | 0,87 | 1,05 | 32,97 | 32,88 | 0,11 | 0,13 | 4,11 | 4,10 | 0,06 | 0,07 | 2,18 | 2,17 |
| 60 | 4,41 | 4,29 | 106,49 | 106,95 | 0,38 | 0,37 | 9,19 | 9,23 | 0,22 | 0,21 | 5,32 | 5,35 |
| 61 | – | – | – | – | – | – | – | – | – | – | – | – |
| 62 | – | – | – | – | – | – | – | – | – | – | – | – |
| 63 | 7,68 | 7,85 | 53,12 | 53,04 | 0,83 | 0,84 | 5,72 | 5,71 | 0,30 | 0,31 | 2,07 | 2,07 |
| 64 | 32,03 | 32,31 | 132,49 | 132,62 | 5,04 | 5,08 | 20,84 | 20,86 | 0,02 | 0,03 | 0,10 | 0,10 |
| 65 | 3,40 | 3,40 | 7,88 | 7,83 | 0,29 | 0,29 | 0,66 | 0,66 | 0,07 | 0,07 | 0,16 | 0,16 |
| 66 | 5,10 | 5,00 | 72,80 | 72,36 | 0,24 | 0,23 | 3,36 | 3,34 | 0,10 | 0,10 | 1,39 | 1,38 |
| 67 | – | – | – | – | – | – | – | – | – | – | – | – |
| 70 | 0,09 | 0,10 | 2,74 | 2,74 | 0,01 | 0,01 | 0,42 | 0,42 | 0,01 | 0,01 | 0,22 | 0,22 |
| 71 | 1,19 | 1,29 | 26,62 | 26,54 | 0,10 | 0,10 | 2,17 | 2,16 | 0,09 | 0,10 | 2,12 | 2,11 |
| 72 | 22,47 | 22,99 | 254,22 | 252,71 | 0,69 | 0,71 | 7,86 | 7,81 | 0,35 | 0,35 | 3,91 | 3,89 |
| 73 | 30,00 | 29,79 | 409,27 | 411,43 | 0,16 | 0,16 | 2,25 | 2,26 | 0,05 | 0,05 | 0,69 | 0,70 |
| 74 | 16,72 | 16,72 | 68,46 | 68,57 | 1,39 | 1,39 | 5,70 | 5,71 | 0,67 | 0,67 | 2,73 | 2,73 |
| 75 | 8,66 | 8,56 | 75,36 | 75,32 | 0,94 | 0,93 | 8,22 | 8,21 | 0,29 | 0,29 | 2,56 | 2,56 |
| 80 | 1,91 | 2,73 | 218,51 | 218,53 | 0,02 | 0,02 | 1,80 | 1,80 | 0,01 | 0,01 | 0,80 | 0,80 |
| 85 | 107,43 | 106,47 | 849,40 | 849,13 | 0,58 | 0,58 | 4,59 | 4,59 | 0,14 | 0,14 | 1,09 | 1,09 |
| 90 | 12,29 | 10,46 | 573,34 | 573,49 | 0,36 | 0,31 | 17,02 | 17,02 | 0,08 | 0,06 | 3,52 | 3,52 |
| 91 | – | – | – | – | – | – | – | – | – | – | – | – |
| 92 | 11,47 | 11,39 | 43,89 | 44,07 | 0,93 | 0,92 | 3,56 | 3,57 | 0,29 | 0,29 | 1,13 | 1,13 |
| 93 | 39,81 | 40,10 | 149,21 | 149,90 | 1,90 | 1,92 | 7,13 | 7,17 | 1,23 | 1,24 | 4,61 | 4,64 |
| Total on the population | 0,44 | 0,45 | 3,89 | 3,88 | 0,12 | 0,12 | 1,07 | 1,07 | 0,04 | 0,04 | 0,33 | 0,33 |

Table I.8

**ARB and RRMSE of Horwitz-Thompson and regression estimator by regions**

**for g28**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COATSU region code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 6,86 | 6,95 | 14,09 | 13,75 | 1,41 | 1,43 | 2,90 | 2,83 | 0,83 | 0,84 | 1,71 | 1,67 |
| 5 | 1,71 | 2,32 | 25,57 | 23,88 | 0,40 | 0,54 | 5,98 | 5,59 | 0,12 | 0,17 | 1,86 | 1,73 |
| 7 | 10,10 | 9,15 | 30,15 | 29,89 | 1,07 | 0,97 | 3,19 | 3,17 | 0,59 | 0,53 | 1,75 | 1,73 |
| 12 | 0,61 | 0,63 | 21,33 | 21,17 | 0,03 | 0,03 | 1,06 | 1,05 | 0,02 | 0,02 | 0,65 | 0,65 |
| 14 | 0,29 | 0,03 | 21,41 | 21,41 | 0,18 | 0,02 | 13,20 | 13,21 | 0,04 | 0,00 | 2,84 | 2,84 |
| 18 | 5,29 | 8,30 | 36,59 | 34,29 | 0,86 | 1,35 | 5,94 | 5,56 | 0,51 | 0,80 | 3,51 | 3,29 |
| 21 | 24,99 | 21,39 | 96,67 | 91,30 | 1,27 | 1,09 | 4,91 | 4,64 | 0,96 | 0,82 | 3,70 | 3,50 |
| 23 | 8,50 | 7,53 | 17,55 | 16,97 | 1,52 | 1,35 | 3,14 | 3,04 | 0,94 | 0,83 | 1,93 | 1,87 |
| 26 | 2,37 | 1,07 | 24,33 | 24,89 | 0,36 | 0,16 | 3,73 | 3,81 | 0,13 | 0,06 | 1,37 | 1,40 |
| 32 | 0,40 | 0,30 | 19,88 | 19,78 | 0,10 | 0,07 | 4,84 | 4,82 | 0,04 | 0,03 | 2,07 | 2,06 |
| 35 | 3,54 | 3,91 | 27,46 | 28,10 | 0,53 | 0,58 | 4,09 | 4,19 | 0,42 | 0,46 | 3,23 | 3,30 |
| 44 | 1,89 | 2,43 | 28,64 | 28,29 | 0,66 | 0,85 | 10,00 | 9,88 | 0,19 | 0,24 | 2,80 | 2,77 |
| 46 | 0,97 | 0,66 | 15,87 | 16,29 | 0,06 | 0,04 | 1,06 | 1,08 | 0,04 | 0,03 | 0,66 | 0,68 |
| 48 | 4,14 | 4,01 | 27,47 | 27,13 | 0,82 | 0,80 | 5,47 | 5,41 | 0,33 | 0,32 | 2,17 | 2,14 |
| 51 | 0,43 | 0,18 | 13,19 | 13,24 | 0,05 | 0,02 | 1,48 | 1,49 | 0,02 | 0,01 | 0,62 | 0,63 |
| 53 | 0,48 | 0,47 | 18,58 | 18,88 | 0,19 | 0,19 | 7,46 | 7,58 | 0,05 | 0,05 | 1,91 | 1,94 |
| 56 | 6,47 | 6,17 | 49,78 | 49,01 | 1,11 | 1,06 | 8,57 | 8,43 | 0,63 | 0,60 | 4,85 | 4,77 |
| 59 | 1,16 | 1,12 | 32,57 | 31,95 | 0,28 | 0,27 | 7,88 | 7,73 | 0,16 | 0,15 | 4,43 | 4,34 |
| 61 | 9,40 | 6,43 | 33,48 | 32,95 | 5,40 | 3,69 | 19,23 | 18,92 | 1,08 | 0,74 | 3,87 | 3,80 |
| 63 | 0,85 | 0,72 | 11,39 | 11,19 | 0,21 | 0,18 | 2,83 | 2,78 | 0,10 | 0,08 | 1,28 | 1,25 |
| 65 | 2,60 | 2,04 | 20,52 | 21,41 | 0,81 | 0,63 | 6,36 | 6,64 | 0,42 | 0,33 | 3,35 | 3,50 |
| 68 | 0,78 | 1,28 | 12,73 | 12,37 | 0,28 | 0,47 | 4,63 | 4,50 | 0,05 | 0,09 | 0,88 | 0,85 |
| 71 | 5,65 | 6,15 | 33,99 | 32,77 | 2,44 | 2,66 | 14,67 | 14,14 | 0,98 | 1,07 | 5,93 | 5,72 |
| 73 | 4,00 | 3,10 | 60,43 | 60,53 | 0,20 | 0,16 | 3,06 | 3,06 | 0,10 | 0,08 | 1,49 | 1,49 |
| 74 | 5,09 | 3,86 | 29,41 | 29,62 | 2,24 | 1,70 | 12,93 | 13,03 | 0,68 | 0,51 | 3,91 | 3,93 |
| 80 | 0,02 | 0,05 | 6,89 | 6,85 | 0,00 | 0,00 | 0,57 | 0,56 | 0,00 | 0,00 | 0,14 | 0,14 |
| 85 | 5,44 | 3,71 | 78,59 | 76,35 | 1,60 | 1,09 | 23,08 | 22,42 | 0,10 | 0,07 | 1,48 | 1,44 |
| Total on the population | 0,24 | 0,13 | 3,20 | 3,14 | 0,05 | 0,03 | 0,66 | 0,65 | 0,03 | 0,02 | 0,39 | 0,38 |

Table I.9

**ARB and RRMSE of Horwitz-Thompson and regression estimator by institutional sectors of economy for g28**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CISE institutional sector of economy code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 0 | 9,98 | 8,82 | 75,18 | 57,81 | 0,76 | 0,67 | 5,74 | 4,41 | 0,14 | 0,12 | 1,03 | 0,79 |
| 11 | 16,11 | 16,40 | 71,65 | 70,43 | 3,31 | 3,37 | 14,72 | 14,47 | 0,66 | 0,67 | 2,92 | 2,87 |
| 12 | 0,29 | 0,29 | 4,03 | 4,04 | 0,04 | 0,04 | 0,61 | 0,61 | 0,02 | 0,02 | 0,27 | 0,27 |
| 13 | 2,98 | 2,94 | 12,12 | 11,92 | 0,26 | 0,26 | 1,06 | 1,05 | 0,04 | 0,04 | 0,15 | 0,15 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 25 | – | – | – | – | – | – | – | – | – | – | – | – |
| 27 | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | 26,90 | 26,89 | 30,83 | 30,88 | 1,45 | 1,45 | 1,66 | 1,66 | 1,29 | 1,29 | 1,48 | 1,49 |
| 29 | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | – | – | – | – | – | – | – | – | – | – | – | – |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | 8,89 | 8,68 | 71,80 | 72,55 | 0,39 | 0,38 | 3,15 | 3,19 | 0,16 | 0,16 | 1,30 | 1,31 |
| 37 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | 7,45 | 7,77 | 173,44 | 173,31 | 0,10 | 0,11 | 2,37 | 2,37 | 0,05 | 0,05 | 1,09 | 1,08 |
| 42 | 15,69 | 15,17 | 79,35 | 78,61 | 2,53 | 2,44 | 12,77 | 12,65 | 1,37 | 1,33 | 6,94 | 6,88 |
| 43 | – | – | – | – | – | – | – | – | – | – | – | – |
| 60 | 41,88 | 36,25 | 214,14 | 205,60 | 7,87 | 6,81 | 40,22 | 38,61 | 2,40 | 2,07 | 12,25 | 11,76 |
| 99 | – | – | – | – | – | – | – | – | – | – | – | – |
| Total on the population | 0,19 | 0,19 | 3,87 | 3,84 | 0,01 | 0,01 | 0,30 | 0,29 | 0,00 | 0,00 | 0,05 | 0,05 |

Table I.10

**ARB and RRMSE of Horwitz-Thompson and regression estimator by economic activities**

**for g29**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE economic activity code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 100,00 | 97,74 | 100,00 | 98,03 | 0,13 | 0,13 | 0,13 | 0,13 | 0,04 | 0,04 | 0,04 | 0,04 |
| 2 | – | – | – | – | – | – | – | – | – | – | – | – |
| 5 | – | – | – | – | – | – | – | – | – | – | – | – |
| 10 | – | – | – | – | – | – | – | – | – | – | – | – |
| 11 | – | – | – | – | – | – | – | – | – | – | – | – |
| 14 | – | – | – | – | – | – | – | – | – | – | – | – |
| 15 | 67,03 | 67,08 | 366,79 | 366,23 | 4,93 | 4,93 | 26,97 | 26,93 | 1,13 | 1,13 | 6,19 | 6,18 |
| 17 | – | – | – | – | – | – | – | – | – | – | – | – |
| 18 | – | – | – | – | – | – | – | – | – | – | – | – |
| 19 | – | – | – | – | – | – | – | – | – | – | – | – |
| 20 | – | – | – | – | – | – | – | – | – | – | – | – |
| 21 | – | – | – | – | – | – | – | – | – | – | – | – |
| 22 | – | – | – | – | – | – | – | – | – | – | – | – |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | 8,77 | 9,06 | 112,27 | 111,01 | 0,77 | 0,80 | 9,90 | 9,79 | 0,15 | 0,15 | 1,86 | 1,84 |
| 25 | – | – | – | – | – | – | – | – | – | – | – | – |
| 26 | 31,07 | 30,30 | 256,54 | 256,45 | 0,64 | 0,63 | 5,29 | 5,29 | 0,13 | 0,13 | 1,08 | 1,08 |
| 27 | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | – | – | – | – | – | – | – | – | – | – | – | – |
| 29 | – | – | – | – | – | – | – | – | – | – | – | – |
| 30 | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | – | – | – | – | – | – | – | – | – | – | – | – |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 34 | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | – | – | – | – | – | – | – | – | – | – | – | – |
| 37 | – | – | – | – | – | – | – | – | – | – | – | – |
| 40 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | 70,57 | 69,42 | 561,54 | 561,74 | 3,02 | 2,97 | 24,00 | 24,01 | 0,16 | 0,16 | 1,28 | 1,28 |
| 45 | 2,17 | 2,17 | 4,59 | 4,59 | 0,33 | 0,33 | 0,70 | 0,70 | 0,12 | 0,12 | 0,25 | 0,25 |
| 50 | 100,00 | 99,25 | 100,00 | 99,57 | 0,12 | 0,12 | 0,12 | 0,12 | 0,08 | 0,08 | 0,08 | 0,08 |
| 51 | 13,92 | 14,04 | 64,01 | 64,05 | 0,39 | 0,40 | 1,81 | 1,81 | 0,34 | 0,34 | 1,56 | 1,56 |
| 52 | 100,00 | 102,38 | 100,00 | 102,83 | 0,27 | 0,28 | 0,27 | 0,28 | 0,18 | 0,19 | 0,18 | 0,19 |
| 55 | 47,08 | 47,94 | 214,35 | 214,48 | 2,00 | 2,04 | 9,12 | 9,13 | 1,53 | 1,56 | 6,96 | 6,97 |
| 60 | – | – | – | – | – | – | – | – | – | – | – | – |
| 61 | – | – | – | – | – | – | – | – | – | – | – | – |
| 62 | – | – | – | – | – | – | – | – | – | – | – | – |
| 63 | 100,00 | 101,65 | 100,00 | 102,44 | 0,85 | 0,86 | 0,85 | 0,87 | 0,12 | 0,12 | 0,12 | 0,12 |
| 64 | – | – | – | – | – | – | – | – | – | – | – | – |
| 65 | 100,00 | 101,02 | 100,00 | 101,31 | 0,18 | 0,18 | 0,18 | 0,18 | 0,12 | 0,12 | 0,12 | 0,12 |
| 66 | – | – | – | – | – | – | – | – | – | – | – | – |
| 67 | – | – | – | – | – | – | – | – | – | – | – | – |
| 70 | 0,89 | 0,89 | 3,27 | 3,27 | 0,13 | 0,13 | 0,48 | 0,48 | 0,05 | 0,05 | 0,20 | 0,20 |
| 71 | 0,02 | 0,02 | 0,07 | 0,07 | 0,00 | 0,00 | 0,01 | 0,01 | 0,00 | 0,00 | 0,01 | 0,01 |
| 72 | – | – | – | – | – | – | – | – | – | – | – | – |
| 73 | – | – | – | – | – | – | – | – | – | – | – | – |
| 74 | 4,83 | 4,98 | 149,75 | 149,72 | 0,08 | 0,08 | 2,55 | 2,55 | 0,03 | 0,03 | 0,89 | 0,89 |
| 75 | 1,96 | 1,98 | 12,11 | 12,12 | 0,25 | 0,25 | 1,55 | 1,55 | 0,12 | 0,12 | 0,75 | 0,75 |
| 80 | 12,65 | 11,69 | 478,92 | 479,57 | 0,02 | 0,02 | 0,75 | 0,75 | 0,00 | 0,00 | 0,14 | 0,14 |
| 85 | 25,43 | 26,48 | 195,30 | 195,16 | 2,60 | 2,70 | 19,94 | 19,93 | 0,58 | 0,60 | 4,43 | 4,42 |
| 90 | 24,10 | 23,91 | 263,89 | 262,82 | 3,72 | 3,69 | 40,75 | 40,58 | 1,31 | 1,30 | 14,37 | 14,31 |
| 91 | – | – | – | – | – | – | – | – | – | – | – | – |
| 92 | – | – | – | – | – | – | – | – | – | – | – | – |
| 93 | – | – | – | – | – | – | – | – | – | – | – | – |
| Total on the population | 1,30 | 1,31 | 3,25 | 3,25 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |

Table I.11

**ARB and RRMSE of Horwitz-Thompson and regression estimator by regions for g29**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COATSU region code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 5,40 | 5,41 | 23,55 | 23,30 | 0,79 | 0,79 | 3,46 | 3,42 | 0,32 | 0,32 | 1,38 | 1,36 |
| 5 | 3,05 | 2,83 | 11,73 | 11,79 | 0,44 | 0,41 | 1,69 | 1,70 | 0,14 | 0,13 | 0,55 | 0,55 |
| 7 | 1,43 | 0,77 | 13,38 | 12,28 | 0,98 | 0,53 | 9,18 | 8,43 | 0,41 | 0,22 | 3,87 | 3,55 |
| 12 | 0,63 | 0,77 | 26,80 | 26,45 | 0,03 | 0,03 | 1,09 | 1,08 | 0,02 | 0,03 | 0,90 | 0,88 |
| 14 | 1,17 | 1,17 | 10,53 | 10,59 | 0,16 | 0,16 | 1,43 | 1,43 | 0,08 | 0,08 | 0,70 | 0,71 |
| 18 | 0,34 | 0,46 | 5,97 | 5,92 | 0,27 | 0,36 | 4,68 | 4,65 | 0,21 | 0,28 | 3,67 | 3,64 |
| 21 | 4,81 | 5,35 | 63,74 | 63,15 | 0,36 | 0,40 | 4,72 | 4,68 | 0,13 | 0,14 | 1,66 | 1,64 |
| 23 | 0,26 | 0,44 | 22,40 | 22,35 | 0,06 | 0,10 | 5,24 | 5,23 | 0,04 | 0,07 | 3,41 | 3,40 |
| 26 | 3,13 | 2,96 | 7,84 | 7,64 | 1,62 | 1,53 | 4,05 | 3,95 | 0,88 | 0,83 | 2,20 | 2,15 |
| 32 | 2,45 | 2,75 | 51,32 | 51,13 | 0,20 | 0,23 | 4,23 | 4,21 | 0,05 | 0,06 | 1,06 | 1,06 |
| 35 | 0,42 | 0,46 | 2,14 | 2,14 | 0,31 | 0,34 | 1,59 | 1,59 | 0,23 | 0,26 | 1,21 | 1,21 |
| 44 | 0,72 | 0,85 | 4,34 | 4,34 | 0,16 | 0,19 | 0,95 | 0,95 | 0,09 | 0,10 | 0,53 | 0,53 |
| 46 | 0,63 | 0,51 | 8,63 | 8,59 | 0,25 | 0,20 | 3,37 | 3,35 | 0,08 | 0,07 | 1,13 | 1,13 |
| 48 | 6,80 | 7,42 | 34,71 | 35,53 | 0,80 | 0,87 | 4,07 | 4,17 | 0,51 | 0,56 | 2,61 | 2,67 |
| 51 | 0,25 | 0,28 | 17,43 | 17,37 | 0,01 | 0,01 | 0,66 | 0,66 | 0,01 | 0,01 | 0,42 | 0,41 |
| 53 | 0,79 | 0,62 | 8,73 | 8,71 | 0,16 | 0,13 | 1,77 | 1,76 | 0,10 | 0,08 | 1,14 | 1,14 |
| 56 | 50,19 | 47,81 | 149,93 | 148,84 | 3,64 | 3,47 | 10,89 | 10,81 | 3,15 | 3,00 | 9,40 | 9,33 |
| 59 | 0,12 | 0,08 | 10,19 | 10,00 | 0,07 | 0,04 | 5,49 | 5,38 | 0,01 | 0,01 | 0,90 | 0,89 |
| 61 | 2,43 | 2,44 | 16,93 | 16,20 | 0,37 | 0,37 | 2,57 | 2,46 | 0,14 | 0,14 | 0,99 | 0,95 |
| 63 | 1,30 | 1,33 | 25,98 | 26,37 | 0,06 | 0,06 | 1,21 | 1,23 | 0,04 | 0,04 | 0,71 | 0,72 |
| 65 | 4,32 | 4,32 | 20,75 | 20,47 | 2,24 | 2,24 | 10,77 | 10,63 | 0,62 | 0,62 | 2,98 | 2,94 |
| 68 | 10,53 | 10,33 | 33,50 | 34,13 | 1,58 | 1,55 | 5,04 | 5,13 | 0,56 | 0,55 | 1,77 | 1,80 |
| 71 | 1,63 | 1,99 | 14,01 | 14,18 | 0,35 | 0,43 | 2,99 | 3,03 | 0,20 | 0,24 | 1,72 | 1,74 |
| 73 | 1,40 | 1,43 | 6,71 | 6,59 | 0,30 | 0,31 | 1,44 | 1,41 | 0,12 | 0,12 | 0,58 | 0,57 |
| 74 | 0,58 | 0,52 | 5,36 | 5,49 | 0,14 | 0,12 | 1,25 | 1,29 | 0,06 | 0,05 | 0,56 | 0,57 |
| 80 | 0,08 | 0,16 | 5,47 | 5,36 | 0,00 | 0,01 | 0,32 | 0,32 | 0,00 | 0,00 | 0,09 | 0,09 |
| 85 | 5,00 | 5,02 | 52,45 | 52,15 | 0,25 | 0,25 | 2,66 | 2,64 | 0,07 | 0,07 | 0,78 | 0,77 |
| Total on the population | 1,69 | 1,71 | 3,90 | 3,92 | 0,25 | 0,25 | 0,57 | 0,58 | 0,10 | 0,10 | 0,23 | 0,23 |

Table I.12

**ARB and RRMSE of Horwitz-Thompson and regression estimator by institutional sectors of economy for g29**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CISE institutional sector of economy code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 0 | 0,00 | 0,00 | 0,07 | 0,07 | 0,00 | 0,00 | 0,02 | 0,02 | 0,00 | 0,00 | 0,01 | 0,01 |
| 11 | 1,30 | 1,19 | 7,85 | 7,87 | 0,46 | 0,42 | 2,78 | 2,78 | 0,13 | 0,12 | 0,79 | 0,79 |
| 12 | 0,38 | 0,39 | 4,41 | 4,41 | 0,04 | 0,05 | 0,52 | 0,52 | 0,02 | 0,02 | 0,22 | 0,22 |
| 13 | 2,96 | 3,15 | 13,83 | 13,98 | 1,05 | 1,12 | 4,90 | 4,95 | 0,12 | 0,12 | 0,55 | 0,55 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | – | – | – | – | – | – | – | – | – | – | – | – |
| 25 | – | – | – | – | – | – | – | – | – | – | – | – |
| 27 | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | 100,00 | 100,81 | 100,00 | 101,77 | 0,06 | 0,07 | 0,06 | 0,07 | 0,06 | 0,06 | 0,06 | 0,06 |
| 29 | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | – | – | – | – | – | – | – | – | – | – | – | – |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | – | – | – | – | – | – | – | – | – | – | – | – |
| 37 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | 1,81 | 1,77 | 20,27 | 20,31 | 0,15 | 0,14 | 1,63 | 1,63 | 0,09 | 0,09 | 1,01 | 1,02 |
| 42 | 2,40 | 2,59 | 10,45 | 10,91 | 0,41 | 0,44 | 1,79 | 1,87 | 0,12 | 0,13 | 0,54 | 0,57 |
| 43 | – | – | – | – | – | – | – | – | – | – | – | – |
| 60 | 15,88 | 15,88 | 117,73 | 117,73 | 0,62 | 0,62 | 4,61 | 4,61 | 0,50 | 0,50 | 3,72 | 3,72 |
| 99 | – | – | – | – | – | – | – | – | – | – | – | – |
| Total on the population | 0,62 | 0,64 | 3,92 | 3,96 | 0,21 | 0,21 | 1,30 | 1,31 | 0,07 | 0,07 | 0,43 | 0,43 |

Table I.13

**ARB and RRMSE of Horwitz-Thompson and regression estimator by economic activities**

**for g30**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE economic activity code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 2,44 | 2,52 | 13,18 | 13,29 | 0,79 | 0,82 | 4,28 | 4,32 | 0,11 | 0,11 | 0,59 | 0,60 |
| 2 | 13,79 | 15,91 | 131,46 | 130,17 | 3,63 | 4,19 | 34,64 | 34,30 | 0,14 | 0,17 | 1,37 | 1,36 |
| 5 | 7,22 | 6,83 | 173,92 | 173,95 | 0,30 | 0,28 | 7,20 | 7,20 | 0,11 | 0,10 | 2,56 | 2,56 |
| 10 | 9,79 | 9,37 | 110,86 | 111,82 | 1,26 | 1,20 | 14,21 | 14,34 | 0,05 | 0,05 | 0,62 | 0,62 |
| 11 | – | – | – | – | – | – | – | – | – | – | – | – |
| 14 | 1,55 | 1,37 | 73,88 | 73,36 | 0,42 | 0,37 | 20,10 | 19,96 | 0,04 | 0,04 | 2,06 | 2,04 |
| 15 | 3,83 | 3,53 | 45,33 | 45,28 | 0,78 | 0,71 | 9,18 | 9,17 | 0,03 | 0,03 | 0,35 | 0,35 |
| 17 | 21,49 | 21,61 | 102,73 | 102,95 | 5,73 | 5,76 | 27,38 | 27,44 | 0,52 | 0,52 | 2,49 | 2,49 |
| 18 | 43,76 | 43,48 | 272,29 | 272,96 | 0,90 | 0,89 | 5,57 | 5,58 | 0,52 | 0,52 | 3,24 | 3,25 |
| 19 | 32,73 | 30,33 | 127,99 | 127,48 | 14,75 | 13,67 | 57,68 | 57,45 | 0,40 | 0,37 | 1,55 | 1,54 |
| 20 | 8,93 | 7,95 | 64,83 | 63,91 | 2,12 | 1,89 | 15,40 | 15,18 | 0,10 | 0,09 | 0,70 | 0,69 |
| 21 | 0,25 | 0,16 | 63,92 | 63,37 | 0,08 | 0,05 | 20,31 | 20,13 | 0,00 | 0,00 | 1,17 | 1,16 |
| 22 | 16,11 | 16,04 | 104,22 | 103,35 | 2,20 | 2,19 | 14,25 | 14,13 | 0,35 | 0,35 | 2,29 | 2,27 |
| 23 | 0,86 | 0,15 | 33,46 | 33,69 | 0,14 | 0,02 | 5,58 | 5,62 | 0,02 | 0,00 | 0,59 | 0,59 |
| 24 | 2,84 | 2,97 | 35,69 | 35,69 | 0,75 | 0,78 | 9,41 | 9,41 | 0,03 | 0,03 | 0,36 | 0,36 |
| 25 | 1,28 | 0,87 | 36,75 | 36,93 | 0,42 | 0,29 | 12,17 | 12,22 | 0,10 | 0,07 | 2,87 | 2,88 |
| 26 | 15,74 | 15,08 | 41,17 | 40,57 | 5,39 | 5,16 | 14,10 | 13,89 | 0,26 | 0,25 | 0,69 | 0,68 |
| 27 | 8,59 | 8,43 | 111,66 | 111,65 | 0,56 | 0,55 | 7,32 | 7,32 | 0,01 | 0,01 | 0,09 | 0,09 |
| 28 | 6,91 | 7,28 | 48,89 | 49,15 | 1,50 | 1,58 | 10,59 | 10,65 | 0,48 | 0,51 | 3,41 | 3,43 |
| 29 | 24,74 | 23,95 | 65,14 | 64,82 | 2,57 | 2,49 | 6,76 | 6,73 | 0,29 | 0,28 | 0,76 | 0,75 |
| 30 | 5,71 | 5,90 | 139,39 | 139,28 | 0,42 | 0,44 | 10,27 | 10,26 | 0,01 | 0,01 | 0,23 | 0,22 |
| 31 | 28,49 | 27,90 | 114,77 | 115,09 | 8,12 | 7,95 | 32,70 | 32,79 | 0,63 | 0,62 | 2,56 | 2,57 |
| 32 | 19,48 | 20,49 | 159,48 | 159,53 | 1,36 | 1,43 | 11,12 | 11,12 | 0,05 | 0,05 | 0,41 | 0,41 |
| 33 | 13,85 | 14,53 | 61,28 | 61,35 | 4,94 | 5,18 | 21,85 | 21,88 | 0,50 | 0,53 | 2,22 | 2,22 |
| 34 | 3,67 | 4,24 | 140,65 | 139,50 | 0,08 | 0,09 | 3,01 | 2,99 | 0,03 | 0,04 | 1,16 | 1,15 |
| 35 | 50,35 | 49,39 | 207,37 | 207,03 | 0,07 | 0,07 | 0,28 | 0,28 | 0,02 | 0,02 | 0,07 | 0,07 |
| 36 | 17,22 | 16,54 | 102,26 | 102,40 | 3,36 | 3,23 | 19,95 | 19,98 | 0,59 | 0,57 | 3,51 | 3,52 |
| 37 | 14,58 | 13,10 | 119,34 | 119,40 | 2,52 | 2,27 | 20,64 | 20,65 | 0,54 | 0,49 | 4,44 | 4,45 |
| 40 | 36,30 | 36,62 | 84,77 | 84,94 | 3,54 | 3,57 | 8,26 | 8,27 | 0,14 | 0,14 | 0,32 | 0,32 |
| 41 | 32,12 | 30,91 | 209,18 | 208,30 | 0,34 | 0,33 | 2,22 | 2,22 | 0,10 | 0,09 | 0,64 | 0,63 |
| 45 | 2,05 | 2,13 | 13,90 | 13,91 | 0,30 | 0,31 | 2,01 | 2,01 | 0,19 | 0,20 | 1,28 | 1,28 |
| 50 | 2,71 | 2,75 | 10,40 | 10,45 | 1,14 | 1,16 | 4,39 | 4,41 | 0,30 | 0,30 | 1,14 | 1,15 |
| 51 | 0,69 | 0,71 | 6,67 | 6,64 | 0,15 | 0,15 | 1,41 | 1,41 | 0,05 | 0,05 | 0,46 | 0,46 |
| 52 | 4,02 | 4,02 | 19,45 | 19,38 | 1,18 | 1,18 | 5,70 | 5,68 | 0,13 | 0,13 | 0,63 | 0,63 |
| 55 | 0,23 | 0,27 | 15,30 | 15,24 | 0,06 | 0,07 | 3,98 | 3,96 | 0,02 | 0,03 | 1,62 | 1,61 |
| 60 | 5,34 | 5,36 | 31,51 | 31,75 | 0,76 | 0,76 | 4,46 | 4,49 | 0,29 | 0,29 | 1,72 | 1,74 |
| 61 | – | – | – | – | – | – | – | – | – | – | – | – |
| 62 | – | – | – | – | – | – | – | – | – | – | – | – |
| 63 | 0,07 | 0,09 | 24,33 | 24,24 | 0,01 | 0,02 | 4,48 | 4,46 | 0,00 | 0,00 | 0,63 | 0,63 |
| 64 | 12,18 | 13,18 | 123,54 | 123,77 | 0,89 | 0,96 | 9,00 | 9,02 | 0,10 | 0,10 | 0,97 | 0,97 |
| 65 | 2,25 | 2,26 | 11,35 | 11,41 | 0,49 | 0,49 | 2,48 | 2,49 | 0,04 | 0,04 | 0,23 | 0,23 |
| 66 | 33,38 | 32,88 | 225,10 | 225,09 | 0,09 | 0,09 | 0,64 | 0,64 | 0,07 | 0,07 | 0,46 | 0,46 |
| 67 | 19,51 | 19,01 | 300,18 | 300,84 | 0,65 | 0,64 | 10,06 | 10,08 | 0,49 | 0,47 | 7,47 | 7,49 |
| 70 | 0,01 | 0,00 | 1,50 | 1,50 | 0,00 | 0,00 | 0,44 | 0,44 | 0,00 | 0,00 | 0,23 | 0,23 |
| 71 | 1,57 | 1,56 | 9,22 | 9,17 | 0,35 | 0,35 | 2,05 | 2,03 | 0,19 | 0,19 | 1,14 | 1,13 |
| 72 | 48,74 | 47,92 | 216,80 | 217,67 | 9,03 | 8,88 | 40,17 | 40,33 | 2,47 | 2,43 | 10,99 | 11,03 |
| 73 | 34,90 | 34,13 | 93,05 | 92,37 | 8,53 | 8,34 | 22,74 | 22,57 | 1,35 | 1,32 | 3,59 | 3,56 |
| 74 | 9,61 | 9,61 | 21,71 | 21,67 | 1,37 | 1,37 | 3,10 | 3,09 | 0,90 | 0,90 | 2,03 | 2,03 |
| 75 | 0,36 | 0,29 | 7,27 | 7,26 | 0,09 | 0,07 | 1,76 | 1,76 | 0,06 | 0,05 | 1,29 | 1,29 |
| 80 | 7,11 | 7,42 | 76,38 | 75,12 | 0,38 | 0,40 | 4,13 | 4,06 | 0,06 | 0,06 | 0,60 | 0,59 |
| 85 | 18,52 | 18,65 | 68,71 | 68,74 | 1,36 | 1,37 | 5,06 | 5,06 | 0,35 | 0,36 | 1,31 | 1,31 |
| 90 | 32,94 | 33,17 | 163,25 | 162,51 | 10,01 | 10,08 | 49,59 | 49,37 | 3,59 | 3,62 | 17,80 | 17,72 |
| 91 | 60,59 | 60,45 | 98,00 | 97,76 | 0,57 | 0,57 | 0,92 | 0,92 | 0,56 | 0,56 | 0,91 | 0,91 |
| 92 | 1,88 | 1,58 | 57,66 | 57,62 | 0,26 | 0,21 | 7,85 | 7,85 | 0,10 | 0,09 | 3,13 | 3,13 |
| 93 | 25,03 | 25,11 | 82,89 | 83,04 | 1,45 | 1,46 | 4,81 | 4,82 | 1,30 | 1,31 | 4,31 | 4,32 |
| Total on the population | 0,21 | 0,21 | 2,09 | 2,09 | 0,07 | 0,07 | 0,68 | 0,68 | 0,01 | 0,01 | 0,09 | 0,09 |

Table I.14

**ARB and RRMSE of Horwitz-Thompson and regression estimator by regions for g30**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COATSU region code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 0,20 | 0,15 | 10,56 | 10,31 | 0,05 | 0,04 | 2,50 | 2,44 | 0,03 | 0,02 | 1,32 | 1,29 |
| 5 | 0,89 | 1,31 | 15,29 | 15,18 | 0,31 | 0,45 | 5,24 | 5,20 | 0,10 | 0,15 | 1,73 | 1,72 |
| 7 | 0,09 | 0,94 | 15,44 | 15,24 | 0,06 | 0,61 | 9,99 | 9,86 | 0,01 | 0,09 | 1,40 | 1,38 |
| 12 | 1,75 | 1,58 | 8,80 | 8,59 | 0,31 | 0,28 | 1,56 | 1,52 | 0,10 | 0,09 | 0,51 | 0,50 |
| 14 | 0,29 | 0,39 | 11,62 | 11,50 | 0,05 | 0,06 | 1,89 | 1,87 | 0,01 | 0,01 | 0,34 | 0,34 |
| 18 | 1,65 | 1,35 | 11,64 | 11,28 | 0,42 | 0,34 | 2,97 | 2,88 | 0,28 | 0,23 | 2,00 | 1,94 |
| 21 | 0,13 | 0,56 | 15,77 | 14,45 | 0,03 | 0,13 | 3,63 | 3,32 | 0,02 | 0,07 | 1,88 | 1,72 |
| 23 | 1,72 | 3,01 | 17,20 | 17,01 | 0,66 | 1,15 | 6,58 | 6,50 | 0,15 | 0,26 | 1,48 | 1,47 |
| 26 | 0,90 | 0,09 | 16,42 | 16,45 | 0,23 | 0,02 | 4,29 | 4,30 | 0,06 | 0,01 | 1,12 | 1,12 |
| 32 | 0,88 | 0,87 | 7,38 | 7,28 | 0,22 | 0,22 | 1,83 | 1,80 | 0,05 | 0,05 | 0,41 | 0,40 |
| 35 | 4,43 | 1,98 | 31,12 | 29,80 | 1,65 | 0,74 | 11,60 | 11,11 | 0,34 | 0,15 | 2,38 | 2,28 |
| 44 | 7,33 | 6,77 | 18,15 | 17,38 | 2,64 | 2,44 | 6,53 | 6,25 | 0,46 | 0,42 | 1,13 | 1,08 |
| 46 | 0,87 | 0,56 | 10,66 | 10,27 | 0,16 | 0,11 | 2,01 | 1,94 | 0,07 | 0,04 | 0,86 | 0,82 |
| 48 | 1,29 | 1,24 | 16,02 | 16,05 | 0,47 | 0,45 | 5,77 | 5,78 | 0,11 | 0,10 | 1,35 | 1,35 |
| 51 | 0,61 | 0,21 | 9,49 | 9,53 | 0,17 | 0,06 | 2,59 | 2,59 | 0,06 | 0,02 | 0,91 | 0,92 |
| 53 | 1,14 | 1,43 | 14,22 | 14,42 | 0,36 | 0,46 | 4,54 | 4,61 | 0,11 | 0,13 | 1,33 | 1,35 |
| 56 | 2,66 | 1,45 | 16,86 | 15,34 | 0,54 | 0,29 | 3,40 | 3,10 | 0,34 | 0,19 | 2,17 | 1,97 |
| 59 | 2,79 | 2,72 | 6,66 | 6,63 | 1,60 | 1,55 | 3,80 | 3,79 | 0,27 | 0,26 | 0,64 | 0,64 |
| 61 | 1,45 | 0,48 | 10,47 | 10,27 | 0,78 | 0,26 | 5,65 | 5,54 | 0,37 | 0,12 | 2,68 | 2,63 |
| 63 | 0,86 | 0,67 | 9,86 | 10,13 | 0,29 | 0,23 | 3,34 | 3,43 | 0,09 | 0,07 | 1,05 | 1,08 |
| 65 | 0,73 | 0,31 | 23,12 | 23,15 | 0,24 | 0,10 | 7,55 | 7,56 | 0,09 | 0,04 | 2,90 | 2,91 |
| 68 | 2,27 | 1,93 | 10,14 | 9,96 | 1,29 | 1,10 | 5,78 | 5,68 | 0,30 | 0,26 | 1,35 | 1,33 |
| 71 | 3,19 | 2,37 | 22,78 | 22,16 | 1,22 | 0,91 | 8,73 | 8,49 | 0,35 | 0,26 | 2,51 | 2,44 |
| 73 | 5,70 | 7,27 | 27,95 | 27,39 | 1,35 | 1,72 | 6,61 | 6,48 | 0,44 | 0,56 | 2,15 | 2,11 |
| 74 | 0,76 | 0,14 | 15,90 | 16,02 | 0,65 | 0,12 | 13,46 | 13,56 | 0,16 | 0,03 | 3,39 | 3,42 |
| 80 | 1,10 | 1,06 | 5,35 | 5,37 | 0,15 | 0,15 | 0,74 | 0,74 | 0,06 | 0,06 | 0,28 | 0,28 |
| 85 | 1,60 | 0,56 | 19,34 | 17,64 | 0,23 | 0,08 | 2,73 | 2,49 | 0,13 | 0,05 | 1,56 | 1,42 |
| Total on the population | 0,16 | 0,07 | 2,08 | 2,08 | 0,04 | 0,02 | 0,49 | 0,49 | 0,02 | 0,01 | 0,26 | 0,26 |

Table I.15

**ARB and RRMSE of Horwitz-Thompson and regression estimator by institutional sectors of economy for g30**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CISE institutional sector of economy code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 0 | 5,24 | 3,98 | 23,19 | 17,62 | 1,36 | 1,03 | 6,02 | 4,58 | 0,45 | 0,34 | 1,99 | 1,51 |
| 11 | 1,29 | 1,20 | 18,84 | 19,02 | 0,57 | 0,53 | 8,32 | 8,40 | 0,05 | 0,05 | 0,75 | 0,76 |
| 12 | 1,08 | 1,11 | 3,28 | 3,29 | 0,27 | 0,28 | 0,83 | 0,84 | 0,09 | 0,09 | 0,26 | 0,26 |
| 13 | 0,73 | 0,91 | 7,38 | 7,44 | 0,08 | 0,10 | 0,78 | 0,78 | 0,03 | 0,04 | 0,32 | 0,32 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | 1,26 | 0,13 | 1,89 | 1,29 | 0,17 | 0,02 | 0,25 | 0,17 | 0,01 | 0,00 | 0,02 | 0,01 |
| 25 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 1,52 | 0,00 | 1,52 | 0,00 |
| 27 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 28 | 4,50 | 4,46 | 31,76 | 31,12 | 2,50 | 2,47 | 17,61 | 17,26 | 0,87 | 0,86 | 6,12 | 6,00 |
| 29 | 9,22 | 5,01 | 53,61 | 52,68 | 1,18 | 0,64 | 6,86 | 6,74 | 0,99 | 0,54 | 5,78 | 5,68 |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | 62,91 | 65,45 | 255,45 | 253,94 | 4,17 | 4,34 | 16,93 | 16,83 | 2,08 | 2,16 | 8,44 | 8,39 |
| 33 | 85,69 | 3,13 | 89,07 | 19,77 | 85,69 | 3,13 | 89,07 | 19,77 | 27,46 | 1,00 | 28,55 | 6,34 |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | 74,12 | 74,82 | 110,34 | 110,82 | 0,21 | 0,21 | 0,31 | 0,31 | 0,16 | 0,16 | 0,24 | 0,24 |
| 37 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | 0,34 | 0,26 | 12,11 | 12,11 | 0,04 | 0,03 | 1,30 | 1,30 | 0,02 | 0,02 | 0,86 | 0,86 |
| 42 | 0,03 | 0,24 | 7,42 | 7,45 | 0,01 | 0,11 | 3,28 | 3,29 | 0,01 | 0,05 | 1,58 | 1,58 |
| 43 | 4,96 | 4,80 | 44,54 | 44,16 | 4,96 | 4,80 | 44,54 | 44,16 | 2,66 | 2,57 | 23,86 | 23,66 |
| 60 | 9,51 | 7,45 | 101,55 | 101,51 | 0,19 | 0,15 | 2,07 | 2,07 | 0,17 | 0,13 | 1,81 | 1,81 |
| 99 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 |
| Total on the population | 0,82 | 0,97 | 2,64 | 2,72 | 0,21 | 0,25 | 0,69 | 0,71 | 0,07 | 0,08 | 0,23 | 0,23 |

Table I.16

**ARB and RRMSE of Horwitz-Thompson and regression estimator by economic activities**

**for g31**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NACE economic activity code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 2,70 | 2,69 | 14,01 | 13,92 | 0,83 | 0,83 | 4,30 | 4,27 | 0,10 | 0,10 | 0,54 | 0,54 |
| 2 | 19,77 | 19,61 | 202,21 | 201,80 | 0,51 | 0,50 | 5,18 | 5,17 | 0,00 | 0,00 | 0,05 | 0,05 |
| 5 | 6,85 | 8,12 | 139,67 | 139,91 | 0,73 | 0,86 | 14,81 | 14,84 | 0,71 | 0,84 | 14,40 | 14,42 |
| 10 | 6,69 | 6,29 | 46,51 | 46,89 | 1,30 | 1,22 | 9,05 | 9,12 | 0,00 | 0,00 | 0,02 | 0,02 |
| 11 | 0,00 | 0,00 | 0,01 | 0,01 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 14 | 0,95 | 0,86 | 18,23 | 18,16 | 0,14 | 0,12 | 2,62 | 2,61 | 0,02 | 0,01 | 0,31 | 0,31 |
| 15 | 3,54 | 3,48 | 57,87 | 57,59 | 0,48 | 0,47 | 7,80 | 7,76 | 0,02 | 0,02 | 0,28 | 0,28 |
| 17 | 15,08 | 12,55 | 181,09 | 180,89 | 2,32 | 1,93 | 27,86 | 27,83 | 0,11 | 0,09 | 1,27 | 1,27 |
| 18 | – | – | – | – | – | – | – | – | – | – | – | – |
| 19 | – | – | – | – | – | – | – | – | – | – | – | – |
| 20 | 17,72 | 17,37 | 86,07 | 85,39 | 0,85 | 0,83 | 4,13 | 4,10 | 0,17 | 0,16 | 0,82 | 0,81 |
| 21 | 55,43 | 56,03 | 189,34 | 190,13 | 1,07 | 1,08 | 3,64 | 3,66 | 0,03 | 0,03 | 0,10 | 0,10 |
| 22 | 100,00 | 99,00 | 100,00 | 99,26 | 3,85 | 3,81 | 3,85 | 3,82 | 0,68 | 0,67 | 0,68 | 0,67 |
| 23 | 8,57 | 10,03 | 94,42 | 93,84 | 0,21 | 0,24 | 2,31 | 2,29 | 0,00 | 0,00 | 0,01 | 0,01 |
| 24 | 7,05 | 6,04 | 139,30 | 139,09 | 1,46 | 1,25 | 28,93 | 28,88 | 0,00 | 0,00 | 0,10 | 0,10 |
| 25 | 21,55 | 21,78 | 135,40 | 135,21 | 0,37 | 0,38 | 2,33 | 2,33 | 0,23 | 0,23 | 1,43 | 1,43 |
| 26 | 3,06 | 2,49 | 41,37 | 41,12 | 0,66 | 0,54 | 8,89 | 8,84 | 0,00 | 0,00 | 0,05 | 0,05 |
| 27 | 9,56 | 10,11 | 202,30 | 202,39 | 1,05 | 1,11 | 22,31 | 22,32 | 0,00 | 0,00 | 0,01 | 0,01 |
| 28 | 5,67 | 5,57 | 112,60 | 113,29 | 1,24 | 1,21 | 24,55 | 24,70 | 0,03 | 0,03 | 0,56 | 0,56 |
| 29 | 45,09 | 44,77 | 268,62 | 270,44 | 4,93 | 4,90 | 29,37 | 29,57 | 0,08 | 0,08 | 0,46 | 0,46 |
| 30 | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | 47,71 | 48,45 | 308,59 | 309,57 | 6,42 | 6,52 | 41,54 | 41,67 | 0,01 | 0,01 | 0,05 | 0,05 |
| 32 | – | – | – | – | – | – | – | – | – | – | – | – |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 34 | 11,61 | 11,28 | 103,13 | 104,40 | 0,68 | 0,66 | 6,03 | 6,10 | 0,41 | 0,40 | 3,65 | 3,70 |
| 35 | 27,29 | 24,82 | 133,79 | 133,90 | 0,30 | 0,27 | 1,48 | 1,48 | 0,04 | 0,04 | 0,20 | 0,20 |
| 36 | 2,86 | 4,69 | 566,44 | 564,03 | 0,00 | 0,01 | 0,83 | 0,82 | 0,00 | 0,00 | 0,28 | 0,28 |
| 37 | 9,91 | 9,16 | 104,37 | 103,36 | 0,34 | 0,32 | 3,60 | 3,56 | 0,24 | 0,22 | 2,49 | 2,46 |
| 40 | 2,00 | 1,83 | 20,89 | 20,78 | 0,41 | 0,37 | 4,25 | 4,23 | 0,00 | 0,00 | 0,03 | 0,03 |
| 41 | 3,40 | 3,07 | 32,02 | 31,88 | 1,16 | 1,05 | 10,95 | 10,90 | 0,05 | 0,05 | 0,48 | 0,47 |
| 45 | 2,57 | 2,48 | 20,50 | 20,45 | 0,14 | 0,14 | 1,16 | 1,15 | 0,09 | 0,08 | 0,70 | 0,70 |
| 50 | 0,10 | 0,02 | 42,42 | 42,16 | 0,02 | 0,00 | 7,94 | 7,89 | 0,00 | 0,00 | 2,09 | 2,08 |
| 51 | 15,64 | 15,68 | 35,32 | 35,52 | 1,84 | 1,84 | 4,15 | 4,18 | 0,13 | 0,13 | 0,29 | 0,29 |
| 52 | 35,25 | 35,22 | 254,87 | 255,31 | 0,32 | 0,32 | 2,35 | 2,35 | 0,17 | 0,17 | 1,23 | 1,24 |
| 55 | 0,94 | 0,87 | 18,11 | 18,07 | 0,11 | 0,11 | 2,21 | 2,21 | 0,07 | 0,06 | 1,33 | 1,33 |
| 60 | 9,47 | 9,12 | 209,39 | 209,07 | 0,46 | 0,44 | 10,17 | 10,15 | 0,00 | 0,00 | 0,09 | 0,09 |
| 61 | – | – | – | – | – | – | – | – | – | – | – | – |
| 62 | – | – | – | – | – | – | – | – | – | – | – | – |
| 63 | 3,16 | 3,11 | 25,72 | 25,74 | 0,31 | 0,31 | 2,55 | 2,55 | 0,00 | 0,00 | 0,03 | 0,03 |
| 64 | 1,21 | 1,23 | 8,06 | 8,14 | 0,41 | 0,42 | 2,76 | 2,79 | 0,02 | 0,02 | 0,12 | 0,12 |
| 65 | 2,86 | 2,89 | 335,94 | 335,71 | 0,00 | 0,00 | 0,01 | 0,01 | 0,00 | 0,00 | 0,01 | 0,01 |
| 66 | – | – | – | – | – | – | – | – | – | – | – | – |
| 67 | – | – | – | – | – | – | – | – | – | – | – | – |
| 70 | 3,88 | 3,86 | 17,12 | 17,10 | 0,25 | 0,25 | 1,12 | 1,12 | 0,15 | 0,15 | 0,64 | 0,64 |
| 71 | 2,55 | 2,50 | 48,50 | 48,45 | 0,11 | 0,11 | 2,06 | 2,06 | 0,01 | 0,01 | 0,18 | 0,18 |
| 72 | 47,89 | 46,57 | 307,63 | 305,85 | 1,07 | 1,04 | 6,89 | 6,85 | 0,03 | 0,03 | 0,22 | 0,21 |
| 73 | 11,75 | 13,26 | 249,71 | 251,82 | 0,59 | 0,67 | 12,54 | 12,65 | 0,17 | 0,20 | 3,69 | 3,72 |
| 74 | 5,73 | 5,75 | 12,70 | 12,70 | 0,31 | 0,31 | 0,69 | 0,69 | 0,04 | 0,04 | 0,09 | 0,09 |
| 75 | 0,20 | 0,20 | 1,61 | 1,60 | 0,05 | 0,05 | 0,39 | 0,38 | 0,02 | 0,02 | 0,14 | 0,14 |
| 80 | 7,75 | 8,60 | 154,63 | 154,24 | 1,00 | 1,10 | 19,85 | 19,80 | 0,06 | 0,06 | 1,17 | 1,16 |
| 85 | 0,04 | 0,28 | 80,70 | 80,44 | 0,00 | 0,03 | 7,29 | 7,27 | 0,00 | 0,00 | 1,10 | 1,10 |
| 90 | 0,14 | 0,14 | 3,84 | 3,83 | 0,05 | 0,05 | 1,48 | 1,48 | 0,03 | 0,03 | 0,70 | 0,70 |
| 91 | 20,26 | 20,65 | 311,94 | 312,21 | 0,63 | 0,64 | 9,71 | 9,72 | 0,53 | 0,54 | 8,15 | 8,16 |
| 92 | 0,34 | 0,15 | 88,51 | 88,41 | 0,05 | 0,02 | 13,40 | 13,38 | 0,00 | 0,00 | 0,12 | 0,12 |
| 93 | 118,56 | 119,38 | 598,32 | 596,97 | 3,49 | 3,51 | 17,61 | 17,57 | 0,96 | 0,97 | 4,86 | 4,85 |
| Total on the population | 0,67 | 0,66 | 2,38 | 2,37 | 0,20 | 0,20 | 0,73 | 0,73 | 0,03 | 0,03 | 0,09 | 0,09 |

Table I.17

**ARB and RRMSE of Horwitz-Thompson and regression estimator by regions for g31**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COATSU region code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 1 | 3,20 | 3,16 | 14,54 | 14,21 | 0,30 | 0,29 | 1,35 | 1,32 | 0,10 | 0,10 | 0,46 | 0,45 |
| 5 | 0,84 | 0,80 | 8,47 | 8,50 | 0,33 | 0,32 | 3,37 | 3,38 | 0,09 | 0,09 | 0,91 | 0,91 |
| 7 | 0,60 | 0,53 | 7,01 | 6,91 | 0,20 | 0,17 | 2,33 | 2,29 | 0,09 | 0,08 | 1,01 | 1,00 |
| 12 | 1,95 | 2,40 | 15,41 | 15,77 | 0,25 | 0,31 | 2,01 | 2,05 | 0,02 | 0,02 | 0,13 | 0,13 |
| 14 | 1,67 | 1,96 | 13,02 | 12,79 | 0,11 | 0,13 | 0,84 | 0,82 | 0,01 | 0,01 | 0,05 | 0,05 |
| 18 | 2,64 | 3,06 | 13,08 | 13,38 | 0,88 | 1,01 | 4,34 | 4,44 | 0,15 | 0,17 | 0,72 | 0,74 |
| 21 | 1,10 | 1,94 | 15,75 | 15,60 | 0,16 | 0,28 | 2,26 | 2,24 | 0,10 | 0,17 | 1,37 | 1,36 |
| 23 | 0,78 | 0,08 | 14,58 | 13,90 | 0,07 | 0,01 | 1,31 | 1,25 | 0,01 | 0,00 | 0,14 | 0,13 |
| 26 | 0,55 | 1,81 | 8,04 | 8,13 | 0,15 | 0,50 | 2,21 | 2,24 | 0,03 | 0,11 | 0,51 | 0,52 |
| 32 | 1,13 | 0,95 | 27,05 | 26,62 | 0,12 | 0,10 | 2,98 | 2,93 | 0,01 | 0,01 | 0,23 | 0,23 |
| 35 | 0,32 | 0,16 | 6,03 | 5,64 | 0,07 | 0,03 | 1,26 | 1,18 | 0,03 | 0,01 | 0,53 | 0,50 |
| 44 | 0,88 | 0,30 | 8,25 | 7,99 | 0,17 | 0,06 | 1,56 | 1,51 | 0,03 | 0,01 | 0,28 | 0,27 |
| 46 | 0,18 | 0,51 | 11,98 | 11,87 | 0,01 | 0,04 | 0,93 | 0,93 | 0,00 | 0,01 | 0,19 | 0,19 |
| 48 | 1,11 | 1,31 | 12,95 | 12,67 | 0,22 | 0,26 | 2,54 | 2,48 | 0,04 | 0,05 | 0,46 | 0,45 |
| 51 | 1,50 | 1,51 | 10,17 | 10,32 | 0,10 | 0,10 | 0,66 | 0,67 | 0,01 | 0,01 | 0,10 | 0,10 |
| 53 | 0,68 | 0,61 | 7,13 | 6,78 | 0,19 | 0,17 | 2,03 | 1,93 | 0,02 | 0,01 | 0,16 | 0,15 |
| 56 | 0,52 | 0,19 | 5,70 | 5,21 | 0,41 | 0,15 | 4,48 | 4,09 | 0,02 | 0,01 | 0,25 | 0,22 |
| 59 | 4,44 | 3,72 | 13,72 | 11,97 | 0,60 | 0,50 | 1,85 | 1,62 | 0,09 | 0,07 | 0,27 | 0,24 |
| 61 | 4,86 | 4,94 | 16,45 | 16,09 | 2,19 | 2,23 | 7,41 | 7,25 | 0,39 | 0,40 | 1,32 | 1,29 |
| 63 | 1,26 | 1,18 | 7,50 | 7,38 | 0,49 | 0,46 | 2,91 | 2,86 | 0,03 | 0,02 | 0,16 | 0,15 |
| 65 | 0,66 | 0,62 | 8,59 | 8,42 | 0,30 | 0,28 | 3,84 | 3,77 | 0,08 | 0,07 | 1,00 | 0,98 |
| 68 | 2,51 | 2,88 | 12,28 | 12,18 | 1,24 | 1,42 | 6,07 | 6,02 | 0,03 | 0,04 | 0,16 | 0,16 |
| 71 | 2,09 | 2,73 | 12,59 | 12,99 | 0,62 | 0,81 | 3,73 | 3,85 | 0,13 | 0,17 | 0,77 | 0,80 |
| 73 | 0,26 | 0,41 | 13,06 | 13,70 | 0,01 | 0,02 | 0,60 | 0,63 | 0,01 | 0,01 | 0,42 | 0,44 |
| 74 | 0,94 | 1,34 | 10,41 | 10,22 | 0,49 | 0,70 | 5,45 | 5,35 | 0,08 | 0,12 | 0,94 | 0,92 |
| 80 | 0,27 | 0,38 | 4,90 | 4,77 | 0,02 | 0,03 | 0,39 | 0,38 | 0,00 | 0,00 | 0,03 | 0,02 |
| 85 | 10,78 | 8,57 | 52,65 | 45,05 | 0,06 | 0,05 | 0,29 | 0,25 | 0,04 | 0,03 | 0,18 | 0,15 |
| Total on the population | 0,09 | 0,19 | 2,55 | 2,46 | 0,01 | 0,02 | 0,24 | 0,23 | 0,00 | 0,01 | 0,08 | 0,08 |

Table I.18

**ARB and RRMSE of Horwitz-Thompson and regression estimator by institutional sectors of economy for g31**

(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CISE institutional sector of economy code | For small enterprises | | | | | | | | For all enterprises | | | |
| that are included into the sample with probability less than one | | | | all | | | |
| ARB | | RRMSE | | ARB | | RRMSE | | ARB | | RRMSE | |
| HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P | HT | GREG-P |
| 0 | 15,35 | 6,99 | 33,75 | 27,68 | 1,43 | 0,65 | 3,14 | 2,58 | 0,08 | 0,04 | 0,17 | 0,14 |
| 11 | 0,21 | 0,04 | 10,18 | 10,02 | 0,02 | 0,00 | 0,86 | 0,85 | 0,00 | 0,00 | 0,04 | 0,04 |
| 12 | 0,08 | 0,13 | 5,85 | 5,83 | 0,01 | 0,01 | 0,66 | 0,66 | 0,00 | 0,00 | 0,07 | 0,06 |
| 13 | 0,12 | 0,57 | 5,26 | 5,18 | 0,01 | 0,05 | 0,43 | 0,42 | 0,00 | 0,01 | 0,08 | 0,08 |
| 23 | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | 2,86 | 2,53 | 335,94 | 320,00 | 0,03 | 0,03 | 3,38 | 3,22 | 0,02 | 0,01 | 1,80 | 1,71 |
| 25 | – | – | – | – | – | – | – | – | – | – | – | – |
| 27 | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | – | – | – | – | – | – | – | – | – | – | – | – |
| 29 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 | 100,00 | 0,00 |
| 31 | – | – | – | – | – | – | – | – | – | – | – | – |
| 32 | 100,00 | 0,00 | 100,00 | 0,00 | 5,29 | 0,00 | 5,29 | 0,00 | 5,29 | 0,00 | 5,29 | 0,00 |
| 33 | – | – | – | – | – | – | – | – | – | – | – | – |
| 35 | – | – | – | – | – | – | – | – | – | – | – | – |
| 36 | – | – | – | – | – | – | – | – | – | – | – | – |
| 37 | – | – | – | – | – | – | – | – | – | – | – | – |
| 41 | 1,20 | 1,16 | 4,64 | 4,65 | 0,13 | 0,13 | 0,51 | 0,52 | 0,03 | 0,03 | 0,13 | 0,13 |
| 42 | 0,19 | 0,07 | 2,13 | 2,11 | 0,07 | 0,03 | 0,78 | 0,77 | 0,03 | 0,01 | 0,34 | 0,34 |
| 43 | – | – | – | – | – | – | – | – | – | – | – | – |
| 60 | 0,82 | 7,86 | 254,41 | 248,41 | 0,04 | 0,34 | 11,15 | 10,89 | 0,01 | 0,14 | 4,40 | 4,29 |
| 99 | – | – | – | – | – | – | – | – | – | – | – | – |
| Total on the population | 0,17 | 0,18 | 1,99 | 1,99 | 0,02 | 0,02 | 0,18 | 0,19 | 0,00 | 0,00 | 0,01 | 0,01 |