



Deliverable D2.5

**Report with final results of the data harmonization procedures
applied, including all protocols, per country**

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INTRODUCTION

According to the accepted deliverables D2.3, D2.4 the data harmonization is implemented in more steps during the procedures of homogenization and gridding.

The main steps are as follows:

- Near border data exchange before homogenization
- Homogenization (MASH)
- Data exchange after homogenization
- Controlling of the cross-border harmonization (MASH)
- Gridding, interpolation (MISH) with exchanged data

The harmonization across country borders is based on the near border data exchange that is grounded on the bilateral agreements between the participants. This data exchange must precede the application of MISH-MASH software procedures. The description of procedures MASH (Multiple Analysis of Series for Homogenization; Szentimrey, 1999, 2011) and MISH (Meteorological Interpolation based on Surface Homogenized Data Basis; Szentimrey and Bihari, 2007a, b) can be found in the service contract and the accepted deliverables D1.7, D1.8, D1.11, D2.3. The details of implementation are presented in the following working plan at sections 1, 2.

1. WORKING PLAN IN MODULE 1.3 FOR HOMOGENIZATION

The main steps for creation of station data series of meteorological elements listed in Table 1. (Annex I – Technical Specifications, Contract Notice 2010/S 110-166082 dated 9 June 2010)

The homogenization, the data quality control and the data completion were made on national level, implemented by the common software MASH. Between the neighbouring countries the near border station data series were exchanged in order to cross-border harmonization.

I. Compilation of the raw station data series.

1. Selection of the stations (with the spherical coordinates: ϕ , λ), determination of the time period (1961-2010).
2. Collecting the daily station data series (missing data are allowed) and the metadata per countries. **Exchange of the near border station data series** and the metadata between the neighbouring countries.

II. Homogenization, quality control, data completion for the station data series by MASH on national level, with using the near border data.

1. Derivation of monthly station data series from the daily station data series collected in I.2. Homogenization, quality control, data completion of the monthly station data series. Metadata (probable dates of break points) can be used automatically.
2. Daily station data series (I.2): homogenization, quality control, data completion. This procedure is based on the results of II.1.
3. **Exchange of the near border homogenized data for cross-border harmonization** and for gridding (Module 2: modelling, interpolation).
4. Evaluation of the results of the homogenization and quality control. **Controlling of the cross-border harmonization of the data series.** The cross-border harmonization will be continued after modelling procedure of gridding in Module 2.

2. WORKING PLAN IN MODULE 2 FOR GRIDDING

The main steps for gridding of data series of meteorological elements listed in Table 1. (Annex I – Technical Specifications, Contract Notice 2010/S 110-166082 dated 9 June 2010)

The homogenized, controlled, completed and **harmonized** station data series will constitute the predictor system. The gridding (spatial interpolation) will be made on national level, implemented by common software MISH. Between the neighbouring countries the **near border station data series will be exchanged in order to cross-border harmonization** of spatial interpolation.

I. Spatial modelling of climate statistical parameters (local and stochastic parameters) by MISH on national level, but using the near border data.

1. Determination of some supplementary deterministic model variables, altitude and e.g. other topographic variables (e.g. AURELHY principal components) for the station locations as well as for a half minutes (0.5'x0.5') grid that covers the given area.
2. Modelling of the statistical parameters for the above half minutes grid by use of the derived monthly station data series and the model variables.

Result: For each month, 4 tables of parameters for the half minutes grid, altogether 12x4 tables of parameters per countries.

3. **Cross-border harmonization** of the above parameter tables between the neighbouring countries.

II. Interpolation of daily data series for a grid (gridding) by MISH on national level, but using the near border data.

1. Determination of a wanted relatively dense grid, e.g. $0.1^\circ \times 0.1^\circ$ ($\approx 10 \times 10$ km) resolution.
2. Interpolation for the grid (II.1.) by use of the homogenized, controlled, complemented daily station data series and the 12x4 tables of parameters (I.3).

Result: Interpolated daily data series of good quality at the nodes of the grid.

3. CROSS-BORDER HARMONIZATION STEPS AT HOMOGENIZATION (MODULE 1.3)

3.1 Homogenization of station data series by MASH on national level, with using the near border data of the neighbouring countries (II. 1-2 in section 1)

During the relative homogenization procedure the candidate series are compared with those series as references which are within their neighbourhood defined by the distance. In essence this property can ensure also the harmonization of the homogenized series across the border if we use the near border data from both sides. The applied principle is like the transitivity. Nevertheless it is necessary to control the resulted homogenized system. The controlling examination can be based on certain result files of MASH procedure which are generated automatically.

3.2 The result files of the MASH procedure (D1.12)

Two types of the results can be differentiated.

A, The first type is, output files of the homogenized, controlled and completed series, inhomogeneity series, detected breaks, detected errors. These output files are possessed by the implementing countries.

B, The second type is, output files of test results, verification tables in order to evaluate the homogenization procedure. The verification tables include also test statistics to characterize the series in respect of their homogeneity. During the controlling procedure these test statistics calculated before and after homogenization are compared.

3.3 Controlling procedure for the cross-border harmonization of the data series (1.II.4)

This controlling procedure needs the same data exchange with the homogenized data (1.II.3) as it was in process with the raw data (1.I.2) furthermore some statistical comparison of the homogenized data from both sides of the borders.

Let us assume we have the homogenized, controlled, completed daily data series per countries, which result series by MASH are in file DailyhomQC.dat (p. 58 in manual of MASH) that is one file for one country. These files include the domestic and some near border or transborder series. For example in the Hungarian DailyhomQC.dat we have not only the Hungarian series but also near border Slovakian series homogenized together with them. During data exchange 1.II.3, in Hungary we will have also the version of Slovakian series that were homogenized by Slovaks. At the controlling of the cross-border harmonization 1.II.4 we replace these transborder series. In Hungary it means, that in the file Hungarian DailyhomQC.dat, the Slovakian series homogenized by Hungarians will be replaced by the appropriate series homogenized by Slovaks and it is the same for the other transborder (from Ukraine, Romania, Serbia, Croatia) series. After this replacing we control the resulted series system DailyhomQC.dat, which means to repeat some steps of MASH procedure in order to calculate

the verification tables with the test statistics for the monthly, seasonal and annual series. These test statistics after homogenization (TSA) can be compared to the statistics calculated before homogenization (TSB). The test statistics TSA have to be near to the critical value or much less than the test statistics TSB if the cross-border harmonization is acceptable.

4. THE METEOROLOGICAL VARIABLES AND THE RESULT FILES

4.1 The meteorological variables and their homogenization

According to Annex I – Technical Specifications, Contract Notice 2010/S 110-166082 dated 9 June 2010 – the minimum set of meteorological variables in daily temporal resolution to be provided is as follows:

Ta : 2 m mean daily air temperature

Tmin: Minimum air temperature

Tmax: Maximum air temperature

p: Accumulated total precipitation

DD: 10 m wind direction, Degrees (0-360)

VV: 10 m horizontal wind speed, m/s

Sunshine: Sunshine duration, hours

cc: Cloud cover, tenths

Rglobal: Global radiation MJ/m²/day

RH: Relative humidity, %

pvapour: Surface vapour pressure, hPa

pair: Surface air pressure, hPa

Snow depth: Snow depth, mm

The homogenization, the data quality control and the data completion procedures were applied for almost all the above variables for time period 1961-2010. The details and the result files can be found in deliverable D1.12 (Final report on quality control and data homogenization measures applied per country, including QC protocols and measures to determine the achieved increase in data quality).

4.2 The result files for the cross-border harmonization

According to the deliverable D1.12 altogether 12 variables were homogenized.

The harmonization control procedure was performed also for these variables and the results are enclosed in Annex 1-12: maximum air temperature (1), minimum air temperature (2), precipitation sum (3), relative humidity (4), cloud cover (5), surface vapour pressure (6), surface air pressure (7), sunshine duration (8), global radiation (9), wind speed (10), wind direction, component U (11), wind direction, component V (12). We have the same structure as presented in the deliverable D1.12.

During the controlling procedure the test statistics were calculated for the monthly, seasonal and annual series (3.3), and the annual result tables are enclosed in Annex 1-12. There are three type of the tables:

- Station parameters of the series systems.
- Test statistics before (TSB) and after homogenization (TSA). In this case the test statistics TSA were calculated after the exchange of the near border homogenized data (1.II.3, 3.3). The test statistics TSA have to be near to the critical value or much less than the test statistics TSB if the cross-border harmonization is acceptable.
- Representativity statistics, that were calculated as, $REP = 1 - RMSE/D$, where $RMSE$ is the error of interpolation between the stations and D is the standard deviation of predictand station. The details about the verification statistics can be found in MASH manual (Szentimrey, 2011). The representativity statistics may be useful information for cross-border harmonization in respect of gridding (module 2).

The tables of countries in Annex 1-12 are listed in anti-clockwise direction starting with Hungary and Croatia ending with Czech Republic: Hungary and Croatia (1), Serbia (2), Romania (3), Ukraine (4), Slovakia (5), Poland (6), Czech Republic (7).

References

- D1.7 Proposal for quality control tests to be performed for all observational time series, Submitted to JRC.
- D1.8 Proposal for homogenization methods to be applied to all observational time series, Submitted to JRC.
- D1.11 Report on preliminary results of the quality control and data homogenization measures applied per country, including QC protocols and measures to determine the achieved increase in data quality
- D1.12 Final report on quality control and data homogenization measures applied per country, including QC protocols and measures to determine the achieved increase in data quality
- D2.3 Proposal for the methodology to harmonize observational time series across country borders
- D2.4 Report with preliminary results of the data harmonization procedures applied, including all protocols, per country
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Annex 1. Maximum air temperature

Table 1.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY (Ordered Statistics)

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| brati | 63 | 99.73 | 34211 | 15 | 78.88 | 58300 | 38 | 54.93 |
| milho | 68 | 54.56 | donji | 47 | 45.28 | 66519 | 42 | 44.21 |
| 36500 | 18 | 43.72 | valpo | 50 | 43.54 | 43613 | 21 | 40.78 |
| sombo | 53 | 39.47 | 38605 | 19 | 38.63 | osije | 48 | 36.88 |
| palic | 52 | 35.92 | 48101 | 27 | 32.13 | slavo | 49 | 31.31 |
| lucen | 65 | 31.29 | 58113 | 37 | 31.14 | sacui | 57 | 30.87 |
| 55706 | 34 | 30.07 | 64704 | 41 | 29.17 | satu | 59 | 28.70 |
| 23703 | 10 | 27.54 | stos | 66 | 27.25 | khust | 61 | 26.96 |
| arad | 55 | 26.86 | 51705 | 28 | 25.99 | 25212 | 11 | 25.85 |
| 27815 | 13 | 25.46 | 63411 | 40 | 24.76 | djurd | 46 | 24.26 |
| 23201 | 9 | 23.95 | 28700 | 14 | 23.79 | 46303 | 25 | 23.01 |
| uzhgo | 62 | 22.76 | 56300 | 35 | 22.32 | 44121 | 22 | 21.49 |
| 47106 | 26 | 21.33 | bereg | 60 | 21.06 | sanni | 58 | 20.87 |
| 15307 | 4 | 20.05 | orade | 56 | 20.00 | 36100 | 16 | 19.81 |
| 16601 | 1 | 19.72 | 36407 | 17 | 19.47 | 39113 | 20 | 19.22 |
| 14706 | 3 | 19.18 | kosic | 67 | 18.19 | kikin | 54 | 18.11 |
| 54306 | 32 | 18.10 | 55502 | 33 | 17.78 | bjelo | 44 | 17.21 |
| 17308 | 7 | 17.09 | 13703 | 2 | 15.42 | 26505 | 12 | 15.24 |
| 61709 | 39 | 14.90 | 53101 | 30 | 14.89 | 57311 | 36 | 14.80 |
| 44527 | 24 | 14.17 | backi | 51 | 13.91 | 52819 | 29 | 12.33 |
| 16414 | 6 | 12.15 | 16203 | 5 | 11.78 | hurba | 64 | 11.60 |
| 17809 | 8 | 11.11 | 53521 | 31 | 10.79 | 73302 | 43 | 10.30 |
| 44214 | 23 | 10.14 | daruv | 45 | 9.83 | | | |
| AVERAGE: | | 26.24 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 43613 | 21 | 1403.15 | osije | 48 | 767.14 | 54306 | 32 | 610.04 |
| 14706 | 3 | 583.92 | donji | 47 | 523.50 | 16203 | 5 | 515.17 |
| 36407 | 17 | 511.07 | 16414 | 6 | 494.79 | 52819 | 29 | 472.79 |
| 61709 | 39 | 467.03 | 55502 | 33 | 327.38 | milho | 68 | 298.59 |
| 58113 | 37 | 266.22 | 58300 | 38 | 265.75 | 38605 | 19 | 262.81 |
| 17809 | 8 | 260.60 | sombo | 53 | 235.76 | 27815 | 13 | 218.51 |
| valpo | 50 | 217.38 | brati | 63 | 194.88 | 44214 | 23 | 192.40 |
| hurba | 64 | 172.58 | 66519 | 42 | 171.96 | lucen | 65 | 151.06 |
| 48101 | 27 | 136.03 | 26505 | 12 | 135.32 | 64704 | 41 | 130.54 |
| 53521 | 31 | 127.01 | 28700 | 14 | 124.27 | 46303 | 25 | 122.12 |
| 17308 | 7 | 112.35 | 55706 | 34 | 104.74 | 34211 | 15 | 103.28 |
| slavo | 49 | 100.32 | 44121 | 22 | 98.21 | 73302 | 43 | 97.54 |
| daruv | 45 | 94.82 | uzhgo | 62 | 89.58 | bereg | 60 | 87.98 |
| 57311 | 36 | 86.02 | kosic | 67 | 85.83 | 36500 | 18 | 80.50 |
| sanni | 58 | 80.44 | bjelo | 44 | 80.19 | backi | 51 | 79.69 |
| 39113 | 20 | 79.61 | 25212 | 11 | 79.17 | sacui | 57 | 78.94 |
| djurd | 46 | 75.04 | 56300 | 35 | 74.73 | 63411 | 40 | 71.35 |
| satu | 59 | 71.09 | 53101 | 30 | 66.25 | 47106 | 26 | 65.35 |
| 23201 | 9 | 64.19 | 16601 | 1 | 59.99 | 36100 | 16 | 52.68 |
| 23703 | 10 | 49.35 | 51705 | 28 | 48.31 | 13703 | 2 | 46.72 |
| khust | 61 | 38.30 | 44527 | 24 | 37.36 | kikin | 54 | 32.55 |
| palic | 52 | 30.89 | 15307 | 4 | 27.20 | stos | 66 | 27.10 |
| arad | 55 | 27.02 | orade | 56 | 20.63 | | | |
| AVERAGE: | | 190.66 | | | | | | |

Table 1.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 53101 | 30 | 0.76 | khust | 61 | 0.81 | 73302 | 43 | 0.82 |
| stos | 66 | 0.82 | arad | 55 | 0.83 | 61709 | 39 | 0.84 |
| 36100 | 16 | 0.84 | 51705 | 28 | 0.84 | orade | 56 | 0.84 |
| 16601 | 1 | 0.86 | bjelo | 44 | 0.86 | lucen | 65 | 0.86 |
| 28700 | 14 | 0.87 | sacui | 57 | 0.87 | backi | 51 | 0.87 |
| satu | 59 | 0.87 | uzhgo | 62 | 0.87 | 38605 | 19 | 0.87 |
| kosic | 67 | 0.88 | sanni | 58 | 0.88 | slavo | 49 | 0.88 |
| 44121 | 22 | 0.89 | 52819 | 29 | 0.89 | sombo | 53 | 0.89 |
| 36500 | 18 | 0.89 | 26505 | 12 | 0.89 | 63411 | 40 | 0.89 |
| 53521 | 31 | 0.89 | 13703 | 2 | 0.89 | 64704 | 41 | 0.89 |
| 36407 | 17 | 0.90 | bereg | 60 | 0.90 | 55706 | 34 | 0.90 |
| 15307 | 4 | 0.90 | daruv | 45 | 0.90 | 25212 | 11 | 0.90 |
| 27815 | 13 | 0.90 | milho | 68 | 0.90 | 17308 | 7 | 0.91 |
| 44527 | 24 | 0.91 | hurba | 64 | 0.91 | 23201 | 9 | 0.91 |
| 16203 | 5 | 0.91 | 46303 | 25 | 0.91 | 43613 | 21 | 0.91 |
| palic | 52 | 0.91 | 34211 | 15 | 0.91 | 39113 | 20 | 0.91 |
| 55502 | 33 | 0.91 | 17809 | 8 | 0.92 | 66519 | 42 | 0.92 |
| 56300 | 35 | 0.92 | djurd | 46 | 0.92 | 48101 | 27 | 0.92 |
| 57311 | 36 | 0.92 | 47106 | 26 | 0.92 | 44214 | 23 | 0.92 |
| osije | 48 | 0.92 | 23703 | 10 | 0.93 | 16414 | 6 | 0.93 |
| kikin | 54 | 0.93 | 54306 | 32 | 0.93 | brati | 63 | 0.93 |
| valpo | 50 | 0.93 | donji | 47 | 0.93 | 14706 | 3 | 0.94 |
| 58113 | 37 | 0.94 | 58300 | 38 | 0.94 | | | |
| AVERAGE: | | 0.89 | | | | | | |

Table 1.1c. Station parameters of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

| index | lambda | fi | station | country |
|-------|-------------|-------------|---------|---------|
| 1 | 16.08083333 | 47.03083333 | 16601 | AT |
| 2 | 16.60222222 | 47.67833333 | 13703 | HU |
| 3 | 16.72916666 | 47.48138888 | 14706 | HU |
| 4 | 16.64777777 | 47.19833333 | 15307 | HU |
| 5 | 16.30944444 | 46.91027777 | 16203 | HU |
| 6 | 16.81280000 | 46.92580000 | 16414 | HU |
| 7 | 16.61305555 | 46.60555555 | 17308 | HU |
| 8 | 16.97060000 | 46.45610000 | 17809 | HU |
| 9 | 17.26720000 | 47.88970000 | 23201 | HU |
| 10 | 17.67470000 | 47.71000000 | 23703 | HU |
| 11 | 17.37220000 | 47.29220000 | 25212 | HU |
| 12 | 17.23860000 | 46.73560000 | 26505 | HU |
| 13 | 17.87380000 | 46.36270000 | 27815 | HU |
| 14 | 17.52690000 | 46.10330000 | 28700 | HU |
| 15 | 18.31080000 | 47.65170000 | 34211 | HU |
| 16 | 18.04080000 | 46.91080000 | 36100 | HU |
| 17 | 18.95220000 | 46.95060000 | 36407 | HU |
| 18 | 18.18360000 | 46.68560000 | 36500 | HU |
| 19 | 18.25220000 | 46.13470000 | 38605 | HU |
| 20 | 18.23500000 | 45.99500000 | 39113 | HU |
| 21 | 19.28360000 | 47.79000000 | 43613 | HU |
| 22 | 19.02810000 | 47.51110000 | 44121 | HU |
| 23 | 19.47640000 | 47.65560000 | 44214 | HU |
| 24 | 19.18220000 | 47.42920000 | 44527 | HU |
| 25 | 19.74830000 | 46.91310000 | 46303 | HU |
| 26 | 19.09890000 | 46.51030000 | 47106 | HU |
| 27 | 19.01670000 | 46.18330000 | 48101 | HU |
| 28 | 20.53610000 | 48.49530000 | 51705 | HU |
| 29 | 20.77140000 | 48.09690000 | 52819 | HU |

| | | | | |
|----|-------------|-------------|-------|----|
| 30 | 20.01670000 | 47.86670000 | 53101 | HU |
| 31 | 20.23580000 | 47.73970000 | 53521 | HU |
| 32 | 20.64780000 | 47.64470000 | 54306 | HU |
| 33 | 20.20000000 | 47.12860000 | 55502 | HU |
| 34 | 20.74000000 | 47.10640000 | 55706 | HU |
| 35 | 20.52780000 | 46.86940000 | 56300 | HU |
| 36 | 20.68750000 | 46.54420000 | 57311 | HU |
| 37 | 20.09030000 | 46.25610000 | 58113 | HU |
| 38 | 20.73670000 | 46.31720000 | 58300 | HU |
| 39 | 21.65890000 | 48.38080000 | 61709 | HU |
| 40 | 21.88690000 | 47.96220000 | 63411 | HU |
| 41 | 21.61080000 | 47.49030000 | 64704 | HU |
| 42 | 21.16060000 | 46.67940000 | 66519 | HU |
| 43 | 22.62560000 | 47.86220000 | 73302 | HU |
| 44 | 16.85000000 | 45.91700000 | bjelo | HR |
| 45 | 17.23300000 | 45.60000000 | daruv | HR |
| 46 | 17.06700000 | 46.05000000 | djurđ | HR |
| 47 | 18.16700000 | 45.76700000 | donji | HR |
| 48 | 18.63300000 | 45.53300000 | osije | HR |
| 49 | 18.00000000 | 45.16600000 | slavo | HR |
| 50 | 18.35000000 | 45.66700000 | valpo | HR |
| 51 | 19.67050000 | 45.33660000 | backi | RS |
| 52 | 19.76410000 | 46.09720000 | palic | RS |
| 53 | 19.14310000 | 45.76700000 | sombo | RS |
| 54 | 20.46460000 | 45.84260000 | kikin | RS |
| 55 | 21.35362152 | 46.13351640 | arad | RO |
| 56 | 21.89592406 | 47.03570901 | orade | RO |
| 57 | 22.09450716 | 47.34415862 | sacui | RO |
| 58 | 20.60156003 | 46.07128625 | sanni | RO |
| 59 | 22.88714903 | 47.72148469 | satu | RO |
| 60 | 22.60000000 | 48.20000000 | bereg | UA |
| 61 | 23.30000000 | 48.20000000 | khust | UA |
| 62 | 22.30000000 | 48.60000000 | uzhgo | UA |
| 63 | 17.11060000 | 48.16860000 | brati | SK |
| 64 | 18.19420000 | 47.87310000 | hurba | SK |
| 65 | 19.73600000 | 48.33900000 | lucen | SK |
| 66 | 20.79750000 | 48.71810000 | stos | SK |
| 67 | 21.22250000 | 48.67220000 | kosic | SK |
| 68 | 21.72400000 | 48.66300000 | milho | SK |

Table 1.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY (Ordered Statistics)
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| KV | 35 | 114.22 | KG | 24 | 89.41 | PO | 34 | 82.33 |
| ZA | 38 | 80.19 | VA | 21 | 79.15 | BP | 28 | 75.91 |
| KS | 36 | 75.72 | VG | 26 | 75.03 | ZG | 32 | 72.11 |
| ZL | 33 | 67.41 | LJ | 30 | 61.74 | ZR | 16 | 59.50 |
| BC | 31 | 58.47 | CU | 37 | 58.45 | SZ | 4 | 56.67 |
| NE | 27 | 55.06 | SM | 20 | 50.26 | PA | 13 | 48.68 |
| SO | 14 | 47.00 | OS | 1 | 44.43 | LO | 19 | 43.96 |
| TS | 10 | 43.94 | NS | 15 | 43.54 | SP | 25 | 41.25 |
| BL | 11 | 39.79 | SE | 29 | 39.41 | TI | 6 | 38.72 |
| VS | 18 | 38.13 | BB | 39 | 36.58 | OR | 8 | 35.65 |
| KI | 17 | 35.34 | BJ | 3 | 33.48 | CA | 12 | 33.36 |
| VL | 2 | 29.54 | SU | 22 | 23.72 | SN | 5 | 19.69 |
| BN | 7 | 16.88 | BG | 23 | 16.43 | SC | 9 | 9.11 |
| AVERAGE: | | 50.52 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| SE | 29 | 905.78 | BB | 39 | 834.40 | OS | 1 | 645.83 |
| VL | 2 | 414.52 | PO | 34 | 326.39 | ZR | 16 | 317.61 |
| ZL | 33 | 298.75 | BC | 31 | 270.06 | BP | 28 | 267.29 |
| NS | 15 | 217.04 | BJ | 3 | 194.09 | KV | 35 | 191.53 |
| SO | 14 | 182.44 | ZA | 38 | 177.58 | SZ | 4 | 172.49 |
| LJ | 30 | 171.95 | ZG | 32 | 163.35 | VA | 21 | 151.02 |
| SM | 20 | 147.84 | KG | 24 | 132.42 | KS | 36 | 114.90 |
| TS | 10 | 98.02 | CU | 37 | 97.76 | NE | 27 | 92.89 |
| SN | 5 | 77.64 | VG | 26 | 71.66 | BL | 11 | 68.21 |
| SP | 25 | 59.01 | CA | 12 | 57.19 | TI | 6 | 57.10 |
| LO | 19 | 52.38 | KI | 17 | 50.36 | OR | 8 | 40.44 |
| VS | 18 | 36.51 | PA | 13 | 28.61 | SU | 22 | 26.28 |
| BG | 23 | 19.38 | BN | 7 | 15.43 | SC | 9 | 15.28 |
| AVERAGE: | | 186.19 | | | | | | |

Table 1.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| SC | 9 | 0.60 | BL | 11 | 0.79 | ZG | 32 | 0.79 |
| TS | 10 | 0.81 | OR | 8 | 0.81 | ZL | 33 | 0.81 |
| BB | 39 | 0.84 | TI | 6 | 0.86 | ZA | 38 | 0.86 |
| BN | 7 | 0.86 | PO | 34 | 0.88 | KV | 35 | 0.88 |
| VS | 18 | 0.88 | BC | 31 | 0.88 | LO | 19 | 0.88 |
| SN | 5 | 0.88 | CA | 12 | 0.89 | SM | 20 | 0.89 |
| KS | 36 | 0.89 | SO | 14 | 0.90 | NE | 27 | 0.90 |
| LJ | 30 | 0.90 | VL | 2 | 0.90 | BJ | 3 | 0.90 |
| BG | 23 | 0.90 | KG | 24 | 0.90 | PA | 13 | 0.90 |
| CU | 37 | 0.91 | VA | 21 | 0.91 | SU | 22 | 0.91 |
| VG | 26 | 0.91 | SE | 29 | 0.91 | BP | 28 | 0.92 |
| ZR | 16 | 0.92 | NS | 15 | 0.92 | SP | 25 | 0.92 |
| SZ | 4 | 0.93 | OS | 1 | 0.93 | KI | 17 | 0.93 |
| AVERAGE: | | 0.88 | | | | | | |

Table 1.2c. Station parameters of the series system of Serbia and near border series from Croatia, Hungary, Romania

| | | | |
|----|-------------|-------------|-----------------------|
| 1 | 18.63300000 | 45.53300000 | Osijek |
| 2 | 18.35000000 | 45.66700000 | Valpovo |
| 3 | 19.01666667 | 46.18333334 | Baja |
| 4 | 20.09027778 | 46.25611112 | Szeged |
| 5 | 20.60156002 | 46.07128625 | Sannicolau Mare |
| 6 | 21.25807108 | 45.77105643 | Timisoara |
| 7 | 21.13639857 | 45.38270108 | Banloc |
| 8 | 21.71048271 | 45.03871153 | Oravita |
| 9 | 22.05580461 | 45.18139466 | Semenic |
| 10 | 22.62607371 | 44.62645870 | Drobeta Turnu Severin |
| 11 | 23.11307189 | 44.47618111 | Bacles |
| 12 | 22.94605240 | 43.98489980 | Calafat |
| 13 | 19.76402300 | 46.09721800 | Palic |
| 14 | 19.14313500 | 45.76700000 | Sombor |
| 15 | 19.83000300 | 45.32221500 | Novi Sad |
| 16 | 20.37600800 | 45.39872400 | Zrenjanin |
| 17 | 20.46464000 | 45.84263400 | Kikinda |
| 18 | 21.30552400 | 45.14413700 | Vršac |
| 19 | 19.22693300 | 44.54109900 | Loznica |
| 20 | 19.55503600 | 45.00937300 | Sremska Mitrovica |
| 21 | 19.91247300 | 44.27546400 | Valjevo |
| 22 | 20.29106300 | 44.82423700 | Surcin |
| 23 | 20.46482200 | 44.79845700 | Beograd |
| 24 | 20.92777100 | 44.02722200 | Kragujevac |
| 25 | 20.94214600 | 44.36960000 | Smederevska Palanka |
| 26 | 21.49843000 | 44.75261400 | Veliko Gradište |
| 27 | 22.53634000 | 44.23915700 | Negotin |
| 28 | 19.67048700 | 45.33659900 | Backi Petrovac |
| 29 | 20.09604500 | 45.92344200 | Senta |
| 30 | 19.29780900 | 44.27528100 | Ljubovija |
| 31 | 21.32216800 | 44.83614700 | Bela Crkva |
| 32 | 21.77957700 | 44.19973700 | Žagubica |
| 33 | 19.71302300 | 43.73780700 | Zlatibor |
| 34 | 20.02952100 | 43.84307000 | Pozega |
| 35 | 20.69983600 | 43.70888400 | Kraljevo |
| 36 | 21.33995400 | 43.56405400 | Krusevac |
| 37 | 21.38063600 | 43.94061600 | Cuprija |
| 38 | 22.28856500 | 43.88312800 | Zajecar |
| 39 | 19.56145951 | 43.96678698 | Bajina Basta |

Table 1.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| 13285 | 133 | 108.01 | 444127 | 26 | 100.86 | 541154 | 67 | 95.26 |
| 634322 | 95 | 84.13 | 530801 | 64 | 80.37 | 719507 | 114 | 75.90 |
| 528518 | 62 | 74.94 | 639744 | 98 | 73.33 | 605537 | 80 | 72.11 |
| 422751 | 16 | 70.15 | 519622 | 53 | 67.41 | 602213 | 78 | 67.30 |
| 401321 | 7 | 66.42 | 517507 | 50 | 66.10 | 551459 | 72 | 64.96 |
| 525323 | 59 | 64.17 | 428307 | 18 | 59.54 | 527527 | 61 | 57.12 |
| 614436 | 85 | 56.80 | 614740 | 86 | 56.12 | 523530 | 56 | 56.06 |
| 500432 | 37 | 55.64 | 406421 | 8 | 53.64 | 538416 | 65 | 53.51 |
| 413838 | 12 | 51.63 | 523328 | 55 | 51.47 | 446853 | 30 | 51.27 |
| 349835 | 3 | 51.04 | 502317 | 40 | 49.63 | 618518 | 89 | 49.44 |
| 530535 | 63 | 49.18 | 600608 | 77 | 48.57 | 441757 | 24 | 47.94 |
| 13173 | 135 | 47.39 | 13295 | 132 | 47.19 | 617637 | 88 | 45.98 |
| 722657 | 116 | 45.84 | 346452 | 1 | 45.70 | 2802 | 130 | 45.68 |
| 523108 | 54 | 45.13 | 647334 | 101 | 44.85 | 347357 | 2 | 42.80 |
| 444820 | 28 | 42.43 | 452452 | 31 | 42.17 | 407500 | 9 | 41.76 |
| 622544 | 91 | 41.61 | 722205 | 115 | 41.46 | 412721 | 11 | 41.32 |
| 509649 | 44 | 40.73 | 546115 | 70 | 40.43 | 656555 | 106 | 40.40 |
| 414352 | 13 | 40.29 | 58300 | 129 | 39.70 | 408800 | 10 | 39.25 |
| 444417 | 27 | 38.63 | 455200 | 34 | 38.34 | 425606 | 17 | 37.84 |
| 417530 | 15 | 37.34 | 741640 | 120 | 36.06 | 635658 | 97 | 35.64 |
| 359257 | 5 | 35.51 | 606705 | 81 | 35.24 | 737439 | 117 | 35.18 |
| 454936 | 33 | 34.95 | 655522 | 104 | 34.91 | 502141 | 39 | 34.55 |
| 439534 | 23 | 34.50 | 13183 | 134 | 34.46 | 517545 | 51 | 33.21 |
| 711305 | 112 | 33.19 | 632130 | 92 | 33.07 | 33634 | 136 | 32.91 |
| 617220 | 87 | 32.86 | 457600 | 36 | 32.75 | 438238 | 22 | 32.49 |
| 501252 | 38 | 32.28 | 359521 | 6 | 32.06 | 430608 | 20 | 31.87 |
| 539357 | 66 | 31.51 | 525215 | 58 | 31.05 | 352557 | 4 | 30.52 |
| 739615 | 118 | 29.87 | 604037 | 79 | 29.77 | 428632 | 19 | 29.14 |
| 509940 | 45 | 28.93 | 708430 | 109 | 28.86 | 443639 | 25 | 28.78 |
| 453344 | 32 | 28.73 | 415816 | 14 | 28.59 | 445718 | 29 | 28.21 |
| 632432 | 94 | 27.85 | 655650 | 105 | 27.41 | 650727 | 102 | 26.46 |
| 13174 | 131 | 26.32 | 622303 | 90 | 26.27 | 703156 | 108 | 25.86 |
| 608121 | 82 | 25.24 | 557334 | 76 | 24.96 | 651305 | 103 | 24.73 |
| 66519 | 125 | 24.72 | 714623 | 113 | 24.71 | 548409 | 71 | 24.67 |
| 542532 | 69 | 23.68 | 553254 | 75 | 23.06 | 747356 | 121 | 23.03 |
| 523703 | 57 | 23.00 | 506422 | 41 | 22.90 | 646247 | 100 | 22.55 |
| 33638 | 138 | 22.42 | 551716 | 74 | 22.34 | 541601 | 68 | 22.04 |
| 509441 | 43 | 22.01 | 656621 | 107 | 21.45 | 511349 | 46 | 20.56 |
| 456526 | 35 | 19.99 | 551621 | 73 | 19.60 | 642540 | 99 | 19.60 |
| 610244 | 83 | 19.31 | 525358 | 60 | 19.18 | 611355 | 84 | 19.03 |
| 511912 | 48 | 18.90 | 511849 | 47 | 18.87 | 507158 | 42 | 18.81 |
| 751555 | 123 | 18.79 | 758355 | 124 | 17.91 | 515231 | 49 | 17.68 |
| 33657 | 140 | 17.46 | 57311 | 127 | 17.37 | 710736 | 111 | 17.22 |
| 436447 | 21 | 16.93 | 518231 | 52 | 16.54 | 709352 | 110 | 16.52 |
| 748253 | 122 | 15.59 | 740330 | 119 | 15.50 | 33658 | 137 | 13.70 |
| 33647 | 139 | 13.26 | 73302 | 128 | 13.20 | 635347 | 96 | 13.08 |
| 64704 | 126 | 13.02 | 632229 | 93 | 10.75 | | | |
| AVERAGE: | | 37.37 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 617220 | 87 | 243.19 | 13285 | 133 | 232.05 | 605537 | 80 | 228.88 |
| 517545 | 51 | 199.94 | 541154 | 67 | 191.29 | 444127 | 26 | 185.83 |
| 2802 | 130 | 177.17 | 13173 | 135 | 177.10 | 722205 | 115 | 167.80 |
| 73302 | 128 | 163.44 | 517507 | 50 | 162.48 | 428307 | 18 | 156.55 |
| 604037 | 79 | 155.95 | 406421 | 8 | 148.71 | 618518 | 89 | 147.93 |
| 13295 | 132 | 147.67 | 528518 | 62 | 147.63 | 57311 | 127 | 145.39 |
| 454936 | 33 | 144.73 | 33634 | 136 | 139.12 | 647334 | 101 | 135.82 |
| 428632 | 19 | 132.77 | 58300 | 129 | 132.59 | 639744 | 98 | 128.91 |
| 359257 | 5 | 112.99 | 539357 | 66 | 111.58 | 527527 | 61 | 111.32 |
| 656621 | 107 | 109.70 | 617637 | 88 | 109.10 | 525323 | 59 | 108.04 |
| 530801 | 64 | 104.56 | 719507 | 114 | 104.27 | 64704 | 126 | 98.21 |
| 452452 | 31 | 96.50 | 602213 | 78 | 95.40 | 349835 | 3 | 94.37 |
| 509649 | 44 | 93.69 | 523328 | 55 | 91.81 | 523530 | 56 | 89.19 |
| 401321 | 7 | 87.70 | 614740 | 86 | 86.26 | 509441 | 43 | 83.83 |
| 425606 | 17 | 83.68 | 413838 | 12 | 83.51 | 446853 | 30 | 82.52 |
| 443639 | 25 | 81.63 | 551459 | 72 | 81.09 | 632130 | 92 | 75.88 |
| 519622 | 53 | 70.77 | 546115 | 70 | 69.98 | 407500 | 9 | 69.65 |
| 614436 | 85 | 69.19 | 635658 | 97 | 68.80 | 634322 | 95 | 67.70 |
| 622544 | 91 | 66.54 | 600608 | 77 | 65.91 | 441757 | 24 | 65.32 |
| 422751 | 16 | 64.67 | 445718 | 29 | 63.69 | 722657 | 116 | 62.07 |
| 748253 | 122 | 61.24 | 655650 | 105 | 60.02 | 414352 | 13 | 59.68 |
| 656555 | 106 | 58.30 | 502141 | 39 | 58.19 | 502317 | 40 | 56.73 |
| 737439 | 117 | 56.72 | 352557 | 4 | 56.58 | 714623 | 113 | 56.17 |
| 500432 | 37 | 56.08 | 430608 | 20 | 55.60 | 13174 | 131 | 55.44 |
| 417530 | 15 | 54.41 | 538416 | 65 | 54.14 | 359521 | 6 | 54.01 |
| 530535 | 63 | 53.97 | 444417 | 27 | 52.83 | 632229 | 93 | 51.40 |
| 655522 | 104 | 50.46 | 346452 | 1 | 50.23 | 444820 | 28 | 49.89 |
| 453344 | 32 | 49.38 | 758355 | 124 | 49.19 | 511349 | 46 | 48.99 |
| 408800 | 10 | 48.49 | 751555 | 123 | 48.48 | 457600 | 36 | 47.84 |
| 33647 | 139 | 47.78 | 646247 | 100 | 47.43 | 438238 | 22 | 46.11 |
| 33638 | 138 | 46.07 | 651305 | 103 | 45.06 | 610244 | 83 | 44.03 |
| 509940 | 45 | 43.74 | 455200 | 34 | 42.09 | 708430 | 109 | 41.93 |
| 525358 | 60 | 41.81 | 412721 | 11 | 40.91 | 650727 | 102 | 39.50 |
| 553254 | 75 | 38.81 | 741640 | 120 | 38.63 | 66519 | 125 | 38.55 |
| 456526 | 35 | 37.84 | 711305 | 112 | 37.23 | 439534 | 23 | 36.50 |
| 501252 | 38 | 35.77 | 511912 | 48 | 35.23 | 606705 | 81 | 34.15 |
| 518231 | 52 | 33.09 | 557334 | 76 | 33.01 | 632432 | 94 | 32.25 |
| 611355 | 84 | 31.96 | 739615 | 118 | 31.83 | 541601 | 68 | 30.88 |
| 347357 | 2 | 30.86 | 13183 | 134 | 30.74 | 622303 | 90 | 30.64 |
| 703156 | 108 | 30.48 | 542532 | 69 | 30.27 | 710736 | 111 | 29.06 |
| 507158 | 42 | 28.21 | 747356 | 121 | 27.81 | 548409 | 71 | 27.48 |
| 525215 | 58 | 26.65 | 436447 | 21 | 26.18 | 33658 | 137 | 25.75 |
| 523703 | 57 | 25.24 | 415816 | 14 | 24.06 | 506422 | 41 | 24.06 |
| 740330 | 119 | 23.27 | 642540 | 99 | 23.13 | 551621 | 73 | 22.18 |
| 709352 | 110 | 21.28 | 608121 | 82 | 21.18 | 511849 | 47 | 19.05 |
| 551716 | 74 | 17.37 | 33657 | 140 | 16.63 | 523108 | 54 | 15.23 |
| 515231 | 49 | 14.56 | 635347 | 96 | 11.30 | | | |
| AVERAGE: | | 72.88 | | | | | | |

Table 1.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 527527 | 61 | 0.27 | 515231 | 49 | 0.61 | 656555 | 106 | 0.62 |
| 737439 | 117 | 0.64 | 525358 | 60 | 0.70 | 646247 | 100 | 0.72 |
| 642540 | 99 | 0.72 | 551621 | 73 | 0.74 | 622544 | 91 | 0.74 |
| 605537 | 80 | 0.75 | 634322 | 95 | 0.75 | 509940 | 45 | 0.75 |
| 518231 | 52 | 0.75 | 539357 | 66 | 0.76 | 507158 | 42 | 0.76 |
| 719507 | 114 | 0.76 | 538416 | 65 | 0.78 | 349835 | 3 | 0.78 |
| 611355 | 84 | 0.79 | 530535 | 63 | 0.79 | 542532 | 69 | 0.79 |
| 523530 | 56 | 0.80 | 600608 | 77 | 0.80 | 511349 | 46 | 0.80 |
| 541601 | 68 | 0.80 | 523328 | 55 | 0.80 | 647334 | 101 | 0.81 |
| 446853 | 30 | 0.81 | 519622 | 53 | 0.81 | 428307 | 18 | 0.81 |
| 523703 | 57 | 0.81 | 617220 | 87 | 0.81 | 740330 | 119 | 0.82 |
| 528518 | 62 | 0.82 | 709352 | 110 | 0.82 | 606705 | 81 | 0.82 |
| 73302 | 128 | 0.82 | 548409 | 71 | 0.82 | 501252 | 38 | 0.82 |
| 33657 | 140 | 0.82 | 655522 | 104 | 0.82 | 618518 | 89 | 0.82 |
| 651305 | 103 | 0.83 | 414352 | 13 | 0.83 | 352557 | 4 | 0.83 |
| 614436 | 85 | 0.83 | 632130 | 92 | 0.83 | 602213 | 78 | 0.83 |
| 455200 | 34 | 0.83 | 525323 | 59 | 0.83 | 708430 | 109 | 0.83 |
| 502317 | 40 | 0.84 | 33638 | 138 | 0.84 | 502141 | 39 | 0.84 |
| 438238 | 22 | 0.84 | 610244 | 83 | 0.84 | 622303 | 90 | 0.84 |
| 33647 | 139 | 0.84 | 509649 | 44 | 0.84 | 506422 | 41 | 0.84 |
| 747356 | 121 | 0.84 | 632229 | 93 | 0.85 | 408800 | 10 | 0.85 |
| 33658 | 137 | 0.85 | 635347 | 96 | 0.85 | 517507 | 50 | 0.85 |
| 347357 | 2 | 0.85 | 608121 | 82 | 0.85 | 722205 | 115 | 0.85 |
| 509441 | 43 | 0.85 | 444820 | 28 | 0.86 | 517545 | 51 | 0.86 |
| 557334 | 76 | 0.86 | 454936 | 33 | 0.86 | 553254 | 75 | 0.86 |
| 703156 | 108 | 0.86 | 453344 | 32 | 0.86 | 551459 | 72 | 0.86 |
| 444417 | 27 | 0.86 | 436447 | 21 | 0.86 | 412721 | 11 | 0.86 |
| 632432 | 94 | 0.86 | 413838 | 12 | 0.86 | 758355 | 124 | 0.86 |
| 415816 | 14 | 0.86 | 456526 | 35 | 0.86 | 523108 | 54 | 0.86 |
| 714623 | 113 | 0.86 | 500432 | 37 | 0.87 | 711305 | 112 | 0.87 |
| 710736 | 111 | 0.87 | 655650 | 105 | 0.87 | 639744 | 98 | 0.87 |
| 443639 | 25 | 0.87 | 525215 | 58 | 0.87 | 546115 | 70 | 0.87 |
| 739615 | 118 | 0.87 | 722657 | 116 | 0.87 | 406421 | 8 | 0.87 |
| 650727 | 102 | 0.87 | 346452 | 1 | 0.87 | 64704 | 126 | 0.87 |
| 617637 | 88 | 0.87 | 741640 | 120 | 0.87 | 748253 | 122 | 0.88 |
| 614740 | 86 | 0.88 | 551716 | 74 | 0.88 | 13183 | 134 | 0.88 |
| 511849 | 47 | 0.88 | 445718 | 29 | 0.88 | 452452 | 31 | 0.88 |
| 604037 | 79 | 0.88 | 2802 | 130 | 0.88 | 430608 | 20 | 0.89 |
| 656621 | 107 | 0.89 | 751555 | 123 | 0.89 | 407500 | 9 | 0.89 |
| 635658 | 97 | 0.89 | 541154 | 67 | 0.89 | 511912 | 48 | 0.89 |
| 422751 | 16 | 0.89 | 401321 | 7 | 0.89 | 444127 | 26 | 0.89 |
| 428632 | 19 | 0.89 | 439534 | 23 | 0.89 | 13295 | 132 | 0.90 |
| 417530 | 15 | 0.90 | 530801 | 64 | 0.90 | 359257 | 5 | 0.90 |
| 33634 | 136 | 0.90 | 13173 | 135 | 0.90 | 441757 | 24 | 0.90 |
| 13285 | 133 | 0.91 | 457600 | 36 | 0.91 | 425606 | 17 | 0.91 |
| 57311 | 127 | 0.91 | 359521 | 6 | 0.91 | 66519 | 125 | 0.92 |
| 13174 | 131 | 0.93 | 58300 | 129 | 0.94 | | | |
| AVERAGE: | | 0.84 | | | | | | |

Table 1.3c. Station parameters of the series system of Romania and near border series from Serbia, Hungary, Ukraine

| index | lambda(x) | fi(y) | h | Station_ID | Station_name | Country |
|-------|-----------|----------|----|------------|----------------|---------|
| 1 | 24.87977 | 43.76042 | 25 | 346452 | TURNU MAGURELE | RO |
| 2 | 23.94569 | 43.79006 | 39 | 347357 | BECHET | RO |
| 3 | 28.58898 | 43.81647 | 1 | 349835 | MANGALIA | RO |
| 4 | 25.93422 | 43.87547 | 24 | 352557 | GIURGIU | RO |

| | | | | | | |
|----|----------|----------|------|--------|-------------------|----|
| 5 | 22.94757 | 43.98525 | 61 | 359257 | CALAFAT | RO |
| 6 | 25.35437 | 43.97829 | 85 | 359521 | ALEXANDRIA | RO |
| 7 | 23.33262 | 44.02951 | 59 | 401321 | BAILLESTI | RO |
| 8 | 24.35881 | 44.10044 | 105 | 406421 | CARACAL | RO |
| 9 | 24.98003 | 44.10774 | 111 | 407500 | ROSIORII DE VEDE | RO |
| 10 | 27.96713 | 44.08862 | 156 | 408800 | ADAMCLISI | RO |
| 11 | 27.33986 | 44.20643 | 22 | 412721 | CALARASI | RO |
| 12 | 28.64638 | 44.21409 | 13 | 413838 | CONSTANTA | RO |
| 13 | 23.86846 | 44.31060 | 192 | 414352 | CRAIOVA | RO |
| 14 | 28.25288 | 44.24356 | 67 | 415816 | MEDGIDIA | RO |
| 15 | 25.53854 | 44.28326 | 118 | 417530 | VIDELE | RO |
| 16 | 27.84048 | 44.39178 | 58 | 422751 | FETESTI | RO |
| 17 | 26.09532 | 44.41236 | 82 | 425606 | BUCURESTI FILARET | RO |
| 18 | 23.11458 | 44.47672 | 313 | 428307 | BICLES | RO |
| 19 | 26.52505 | 44.45323 | 67 | 428632 | FUNDULEA | RO |
| 20 | 26.07976 | 44.51082 | 90 | 430608 | BUCURESTI BANEASA | RO |
| 21 | 24.79153 | 44.56288 | 225 | 436447 | STOLNICI | RO |
| 22 | 22.62765 | 44.62673 | 77 | 438238 | DR.TR.SEVERIN | RO |
| 23 | 25.58074 | 44.65320 | 174 | 439534 | TITU | RO |
| 24 | 27.96508 | 44.69200 | 41 | 441757 | HIRSOVA | RO |
| 25 | 26.65856 | 44.72195 | 65 | 443639 | URZICENI | RO |
| 26 | 21.63461 | 44.72285 | 82 | 444127 | MOLDOVA VECE | RO |
| 27 | 24.23871 | 44.66576 | 275 | 444417 | DRAGASANI | RO |
| 28 | 28.34358 | 44.73470 | 221 | 444820 | CORUGEA | RO |
| 29 | 27.29599 | 44.74096 | 51 | 445718 | GRIVITA | RO |
| 30 | 28.87793 | 44.76641 | 36 | 446853 | JURILOVCA | RO |
| 31 | 24.86746 | 44.84929 | 332 | 452452 | PITESTI | RO |
| 32 | 23.71024 | 44.87842 | 271 | 453344 | TG.LOGRESTI | RO |
| 33 | 29.60052 | 44.89687 | 1 | 454936 | SF. GH. DELTA | RO |
| 34 | 22.00774 | 44.91865 | 256 | 455200 | BOZOVICI | RO |
| 35 | 25.42726 | 44.92991 | 285 | 456526 | TIRGOVISTE | RO |
| 36 | 25.98899 | 44.95609 | 172 | 457600 | PLOIESTI | RO |
| 37 | 24.57179 | 45.01629 | 550 | 500432 | DEDULESTI | RO |
| 38 | 22.86105 | 44.99714 | 260 | 501252 | PADES(APA NEAGRA) | RO |
| 39 | 21.71184 | 45.03896 | 309 | 502141 | ORAVITA | RO |
| 40 | 23.26088 | 45.04096 | 204 | 502317 | TG.JIU | RO |
| 41 | 24.38098 | 45.08919 | 242 | 506422 | RM. VILCEA | RO |
| 42 | 22.05712 | 45.18173 | 1432 | 507158 | SEMENIC | RO |
| 43 | 24.67128 | 45.17917 | 449 | 509441 | CURTEA DE ARGES | RO |
| 44 | 26.85300 | 45.13291 | 89 | 509649 | BUZAU | RO |
| 45 | 29.76045 | 45.14869 | 3 | 509940 | SULINA | RO |
| 46 | 23.81015 | 45.16587 | 525 | 511349 | POLOVRAGI | RO |
| 47 | 28.82569 | 45.19084 | 5 | 511849 | TULCEA | RO |
| 48 | 29.15827 | 45.17711 | 3 | 511912 | GORGOVA | RO |
| 49 | 22.53434 | 45.28117 | 2180 | 515231 | TARCU | RO |
| 50 | 25.03814 | 45.27515 | 690 | 517507 | CIMPULUNG | RO |
| 51 | 25.75395 | 45.14448 | 461 | 517545 | CIMPINA | RO |
| 52 | 22.50305 | 45.30081 | 1456 | 518231 | CUNTU | RO |
| 53 | 26.37080 | 45.32496 | 293 | 519622 | PATIRLAGELE | RO |
| 54 | 21.13797 | 45.38305 | 83 | 523108 | BANLOC | RO |
| 55 | 23.46462 | 45.38769 | 1559 | 523328 | PARING | RO |
| 56 | 25.51571 | 45.35526 | 1510 | 523530 | SINAIA(1500) | RO |
| 57 | 27.04016 | 45.39075 | 155 | 523703 | RM. SARAT | RO |
| 58 | 22.22684 | 45.41756 | 241 | 525215 | CARANSEBES | RO |
| 59 | 23.37825 | 45.40661 | 607 | 525323 | PETROSANI | RO |
| 60 | 23.96855 | 45.41150 | 573 | 525358 | VOINEASA | RO |
| 61 | 25.45826 | 45.44614 | 2506 | 527527 | VF. OMU | RO |
| 62 | 25.27327 | 45.43191 | 1376 | 528518 | FUNDATA | RO |
| 63 | 25.58510 | 45.50646 | 1096 | 530535 | PREDEAL | RO |
| 64 | 28.03393 | 45.47330 | 71 | 530801 | GALATI | RO |
| 65 | 24.27318 | 45.65318 | 523 | 538416 | BOITA | RO |
| 66 | 23.93400 | 45.65751 | 1462 | 539357 | PALTINIS | RO |
| 67 | 21.93463 | 45.68673 | 168 | 541154 | LUGOJ | RO |
| 68 | 26.05830 | 45.66855 | 707 | 541601 | INT.BUZAULUI | RO |
| 69 | 25.52772 | 45.69613 | 535 | 542532 | BRASOV | RO |
| 70 | 21.25936 | 45.77146 | 86 | 546115 | TIMISOARA | RO |
| 71 | 24.09294 | 45.78970 | 453 | 548409 | SIBIU | RO |
| 72 | 24.93672 | 45.83636 | 435 | 551459 | FAGARAS | RO |
| 73 | 26.37708 | 45.82401 | 1778 | 551621 | LACAUTI | RO |
| 74 | 27.41036 | 45.84195 | 57 | 551716 | TECUCI | RO |
| 75 | 22.90046 | 45.86504 | 230 | 553254 | DEVA | RO |
| 76 | 23.54309 | 45.96453 | 267 | 557334 | SEBES-ALBA | RO |
| 77 | 26.11687 | 45.99324 | 571 | 600608 | TG.SECUIESC | RO |
| 78 | 22.15242 | 46.01949 | 156 | 602213 | VARADIA DE MURES | RO |
| 79 | 20.60316 | 46.07163 | 85 | 604037 | SANNICOLAU MARE | RO |
| 80 | 25.59740 | 46.08104 | 508 | 605537 | BARAOLT | RO |
| 81 | 27.17181 | 46.10502 | 101 | 606705 | ADJUD | RO |
| 82 | 21.35522 | 46.13385 | 117 | 608121 | ARAD | RO |
| 83 | 22.72770 | 46.16976 | 273 | 610244 | TEBEA | RO |
| 84 | 23.93677 | 46.17882 | 342 | 611355 | BLAJ | RO |
| 85 | 24.59318 | 46.22825 | 323 | 614436 | DUMBRAVENI | RO |

| | | | | | | |
|-----|----------|----------|------|--------|-------------------------|----|
| 86 | 27.64558 | 46.23136 | 168 | 614740 | BIRLAD | RO |
| 87 | 22.33490 | 46.27951 | 177 | 617220 | GURAHONT | RO |
| 88 | 26.64259 | 46.27296 | 245 | 617637 | TG. OCNA | RO |
| 89 | 25.29334 | 46.29709 | 532 | 618518 | ODORHEIUL SECUIESC | RO |
| 90 | 23.04195 | 46.36410 | 621 | 622303 | CIMPENI (BISTRA) | RO |
| 91 | 25.77417 | 46.37158 | 667 | 622544 | MIERCUREA CIUC | RO |
| 92 | 21.54300 | 46.51894 | 96 | 632130 | CHISINEU CRIS | RO |
| 93 | 22.46809 | 46.52832 | 278 | 632229 | STEI | RO |
| 94 | 24.53533 | 46.53368 | 317 | 632432 | TG.MURES | RO |
| 95 | 23.31182 | 46.53577 | 1357 | 634322 | BAISOARA | RO |
| 96 | 23.79284 | 46.58339 | 431 | 635347 | TURDA | RO |
| 97 | 26.91407 | 46.53215 | 183 | 635658 | BACAU | RO |
| 98 | 27.71583 | 46.64624 | 121 | 639744 | VASLUI | RO |
| 99 | 25.51417 | 46.70608 | 747 | 642540 | JOSENI | RO |
| 100 | 22.79579 | 46.75956 | 1840 | 646247 | VLADEASA 1800 | RO |
| 101 | 23.57299 | 46.77799 | 417 | 647334 | CLUJ-NAPOCA | RO |
| 102 | 27.44370 | 46.83833 | 134 | 650727 | NEGRESTI (VASLUI) | RO |
| 103 | 23.03412 | 46.85765 | 566 | 651305 | HUEDIN | RO |
| 104 | 25.36153 | 46.92664 | 690 | 655522 | TOPLITA | RO |
| 105 | 26.91339 | 46.96946 | 218 | 655650 | ROMAN | RO |
| 106 | 25.95151 | 46.97776 | 1897 | 656555 | CEAHLAU TOACA | RO |
| 107 | 26.39090 | 46.93402 | 360 | 656621 | PIATRA NEAMT | RO |
| 108 | 21.89755 | 47.03602 | 136 | 703156 | ORADEA | RO |
| 109 | 24.51545 | 47.14942 | 374 | 708430 | BISTRITA | RO |
| 110 | 23.90050 | 47.12826 | 240 | 709352 | DEJ | RO |
| 111 | 27.63008 | 47.17106 | 103 | 710736 | IASI | RO |
| 112 | 23.04836 | 47.19528 | 303 | 711305 | ZALAU | RO |
| 113 | 26.38059 | 47.21243 | 385 | 714623 | TG. NEAMT | RO |
| 114 | 25.13604 | 47.32492 | 931 | 719507 | POIANA STAMPEI | RO |
| 115 | 22.09580 | 47.34447 | 124 | 722205 | SACUIENI | RO |
| 116 | 26.92741 | 47.35867 | 289 | 722657 | COTNARI | RO |
| 117 | 24.65073 | 47.60283 | 1792 | 737439 | IEZER | RO |
| 118 | 26.24196 | 47.63328 | 366 | 739615 | SUCEAVA | RO |
| 119 | 23.49324 | 47.66121 | 224 | 740330 | BAIA-MARE | RO |
| 120 | 26.64704 | 47.73605 | 160 | 741640 | BOTOSANI | RO |
| 121 | 23.94214 | 47.77737 | 508 | 747356 | OC.SUGATAG | RO |
| 122 | 22.88878 | 47.72177 | 128 | 748253 | SATU MARE | RO |
| 123 | 25.89185 | 47.83801 | 387 | 751555 | RADAUTI | RO |
| 124 | 23.90588 | 47.93957 | 283 | 758355 | SIGHETUL MARMATIEI | RO |
| 125 | 21.16056 | 46.67944 | | 66519 | Békéscsaba Békés | HU |
| 126 | 21.61083 | 47.49028 | | 64704 | Debrecen Repül?té?r | HU |
| 127 | 20.68750 | 46.54417 | | 57311 | Orosháza | HU |
| 128 | 22.62556 | 47.86222 | | 73302 | Pátyod magántelek | HU |
| 129 | 20.73667 | 46.31722 | | 58300 | Pitvaros | HU |
| 130 | 21.32217 | 44.83615 | | 2802 | BELACRKVA | SR |
| 131 | 20.46464 | 45.84263 | | 13174 | KIKINDA | SR |
| 132 | 22.53634 | 44.23916 | | 13295 | NEGOTIN | SR |
| 133 | 21.49843 | 44.75261 | | 13285 | VELIKO GRADISTE | SR |
| 134 | 21.30552 | 45.14414 | | 13183 | VRSAC-kontrolisanoJasna | SR |
| 135 | 20.37601 | 45.39872 | | 13173 | ZRENJANIN | SR |
| 136 | 22.65000 | 48.20000 | | 33634 | Beregove | UA |
| 137 | 25.97250 | 48.26639 | | 33658 | Chernivtsi | UA |
| 138 | 23.30000 | 48.18333 | | 33638 | Khust | UA |
| 139 | 24.19806 | 48.04750 | | 33647 | Rakhiv | UA |
| 140 | 25.21667 | 47.88333 | | 33657 | Seliatyn | UA |

Table 1.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 44 | 44 | 82.51 | 14 | 14 | 73.46 | 27 | 27 | 49.26 |
| 53 | 53 | 40.48 | 25 | 25 | 37.76 | 36 | 36 | 36.34 |
| 18 | 18 | 35.83 | 32 | 32 | 34.80 | 38 | 38 | 33.06 |
| 5 | 5 | 32.00 | 28 | 28 | 31.23 | 13 | 13 | 30.60 |
| 30 | 30 | 29.85 | 29 | 29 | 28.08 | 16 | 16 | 27.62 |
| 42 | 42 | 27.18 | 37 | 37 | 26.33 | 12 | 12 | 26.25 |
| 40 | 40 | 24.42 | 33 | 33 | 22.90 | 39 | 39 | 22.25 |
| 2 | 2 | 21.43 | 47 | 47 | 21.19 | 41 | 41 | 20.96 |
| 49 | 49 | 20.12 | 24 | 24 | 19.93 | 35 | 35 | 19.80 |
| 51 | 51 | 19.70 | 4 | 4 | 19.63 | 8 | 8 | 19.40 |
| 50 | 50 | 18.96 | 20 | 20 | 18.92 | 31 | 31 | 18.59 |
| 46 | 46 | 18.53 | 7 | 7 | 18.53 | 17 | 17 | 18.07 |
| 1 | 1 | 18.03 | 52 | 52 | 17.93 | 48 | 48 | 17.91 |
| 19 | 19 | 17.37 | 23 | 23 | 17.04 | 3 | 3 | 16.86 |
| 43 | 43 | 16.43 | 34 | 34 | 15.26 | 45 | 45 | 14.09 |
| 6 | 6 | 13.54 | 10 | 10 | 13.11 | 21 | 21 | 13.10 |
| 11 | 11 | 12.97 | 15 | 15 | 12.89 | 22 | 22 | 11.98 |
| 9 | 9 | 11.10 | 26 | 26 | 7.93 | | | |
| AVERAGE: | | 24.41 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 15 | 15 | 873.23 | 14 | 14 | 792.55 | 41 | 41 | 594.96 |
| 17 | 17 | 459.52 | 42 | 42 | 417.08 | 27 | 27 | 321.74 |
| 44 | 44 | 311.96 | 18 | 18 | 283.29 | 47 | 47 | 260.96 |
| 45 | 45 | 255.39 | 23 | 23 | 232.34 | 4 | 4 | 176.92 |
| 26 | 26 | 164.07 | 29 | 29 | 140.62 | 8 | 8 | 140.54 |
| 12 | 12 | 136.98 | 37 | 37 | 134.84 | 21 | 21 | 132.54 |
| 28 | 28 | 130.07 | 5 | 5 | 129.24 | 20 | 20 | 126.22 |
| 1 | 1 | 113.59 | 50 | 50 | 107.13 | 33 | 33 | 106.06 |
| 38 | 38 | 105.05 | 36 | 36 | 104.64 | 24 | 24 | 104.12 |
| 31 | 31 | 101.80 | 43 | 43 | 85.90 | 3 | 3 | 80.90 |
| 7 | 7 | 76.91 | 40 | 40 | 72.57 | 35 | 35 | 70.85 |
| 6 | 6 | 70.82 | 25 | 25 | 66.40 | 46 | 46 | 65.33 |
| 48 | 48 | 58.78 | 49 | 49 | 55.19 | 13 | 13 | 54.44 |
| 2 | 2 | 52.17 | 22 | 22 | 47.96 | 30 | 30 | 46.63 |
| 19 | 19 | 36.83 | 10 | 10 | 34.91 | 52 | 52 | 34.24 |
| 39 | 39 | 33.60 | 16 | 16 | 31.37 | 32 | 32 | 28.05 |
| 53 | 53 | 26.88 | 51 | 51 | 26.63 | 9 | 9 | 21.83 |
| 11 | 11 | 14.54 | 34 | 34 | 11.45 | | | |
| AVERAGE: | | 154.01 | | | | | | |

Table 1.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 53 | 53 | 0.76 | 28 | 28 | 0.80 | 52 | 52 | 0.82 |
| 47 | 47 | 0.82 | 45 | 45 | 0.83 | 37 | 37 | 0.83 |
| 39 | 39 | 0.84 | 36 | 36 | 0.84 | 51 | 51 | 0.84 |
| 46 | 46 | 0.84 | 38 | 38 | 0.85 | 31 | 31 | 0.86 |
| 49 | 49 | 0.86 | 48 | 48 | 0.86 | 50 | 50 | 0.87 |
| 10 | 10 | 0.87 | 42 | 42 | 0.87 | 33 | 33 | 0.88 |
| 21 | 21 | 0.88 | 40 | 40 | 0.88 | 34 | 34 | 0.88 |
| 32 | 32 | 0.88 | 22 | 22 | 0.89 | 43 | 43 | 0.89 |
| 14 | 14 | 0.90 | 35 | 35 | 0.90 | 16 | 16 | 0.90 |
| 41 | 41 | 0.90 | 20 | 20 | 0.90 | 44 | 44 | 0.90 |
| 19 | 19 | 0.90 | 30 | 30 | 0.90 | 29 | 29 | 0.90 |
| 3 | 3 | 0.91 | 25 | 25 | 0.91 | 1 | 1 | 0.91 |
| 5 | 5 | 0.91 | 7 | 7 | 0.91 | 9 | 9 | 0.91 |
| 6 | 6 | 0.92 | 13 | 13 | 0.92 | 15 | 15 | 0.92 |
| 26 | 26 | 0.92 | 17 | 17 | 0.92 | 2 | 2 | 0.92 |
| 12 | 12 | 0.92 | 24 | 24 | 0.92 | 4 | 4 | 0.93 |
| 11 | 11 | 0.93 | 27 | 27 | 0.93 | 8 | 8 | 0.93 |
| 18 | 18 | 0.93 | 23 | 23 | 0.93 | | | |
| AVERAGE: | | 0.89 | | | | | | |

Table 1.4c. Station parameters of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

| index | lambda(x) | fi(y) | h |
|-------|-------------|-------------|--------|
| 1 | 24.75000004 | 50.90000005 | 198.0 |
| 2 | 23.63333337 | 50.25000001 | 252.0 |
| 3 | 27.04027778 | 50.16194445 | 277.0 |
| 4 | 25.73333337 | 50.13333334 | 259.0 |
| 5 | 24.35000002 | 50.11666667 | 212.0 |
| 6 | 25.15000001 | 50.08333334 | 227.0 |
| 7 | 23.38333335 | 49.95000005 | 245.0 |
| 8 | 26.20500001 | 49.94805560 | 274.0 |
| 9 | 23.96527783 | 49.80750004 | 319.0 |
| 10 | 23.16666668 | 49.80000004 | 232.0 |
| 11 | 27.93333338 | 49.56666670 | 284.0 |
| 12 | 25.68333337 | 49.53333336 | 327.0 |
| 13 | 24.95000005 | 49.43333336 | 303.0 |
| 14 | 23.56694447 | 49.36222224 | 275.0 |
| 15 | 26.93750005 | 49.35361113 | 350.0 |
| 16 | 23.81666671 | 49.25000001 | 302.0 |
| 17 | 23.03333334 | 49.15000001 | 594.0 |
| 18 | 25.76666671 | 49.01666667 | 320.0 |
| 19 | 28.13333334 | 49.01666667 | 313.0 |
| 20 | 24.00000000 | 48.96666672 | 470.0 |
| 21 | 22.46666669 | 48.90000005 | 205.0 |
| 22 | 24.68888892 | 48.88944449 | 275.0 |
| 23 | 23.45000002 | 48.85000004 | 592.0 |
| 24 | 27.26666668 | 48.85000004 | 292.0 |
| 25 | 23.10000001 | 48.76666671 | 496.0 |
| 26 | 23.36666669 | 48.70000004 | 615.0 |
| 27 | 26.60861114 | 48.69333337 | 217.0 |
| 28 | 23.20694446 | 48.65888892 | 1330.0 |
| 29 | 22.26666668 | 48.63333337 | 113.0 |
| 30 | 25.03333334 | 48.53333336 | 295.0 |
| 31 | 23.50444447 | 48.52666669 | 456.0 |
| 32 | 24.55000003 | 48.45000002 | 531.0 |
| 33 | 27.78333337 | 48.45000002 | 77.0 |
| 34 | 25.97250005 | 48.26638890 | 242.0 |
| 35 | 22.65000003 | 48.20000001 | 113.0 |
| 36 | 23.30000002 | 48.18333334 | 164.0 |

| | | | |
|----|-------------|-------------|--------|
| 37 | 24.53333336 | 48.15000001 | 1451.0 |
| 38 | 24.19805557 | 48.04750000 | 430.0 |
| 39 | 25.21666668 | 47.88333338 | 762.0 |
| 40 | 22.05000000 | 50.10000001 | 212.0 |
| 41 | 22.33333335 | 49.46666669 | 420.0 |
| 42 | 21.91388894 | 49.25305557 | 305.0 |
| 43 | 22.00583333 | 48.93888894 | 176.0 |
| 44 | 21.73472226 | 48.66805559 | 104.0 |
| 45 | 21.65888892 | 48.38055558 | 100.0 |
| 46 | 21.88694449 | 47.96222227 | 142.0 |
| 47 | 22.62555559 | 47.86222227 | 118.0 |
| 48 | 23.90416671 | 47.93916672 | 276.0 |
| 49 | 25.89027782 | 47.83777782 | 100.0 |
| 50 | 22.88722227 | 47.72138893 | 124.0 |
| 51 | 23.94055560 | 47.77694448 | 100.0 |
| 52 | 23.49138891 | 47.66083337 | 100.0 |
| 53 | 24.64888892 | 47.60277781 | 100.0 |

Table 1.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 11977 | 20 | 59.94 | 11868 | 8 | 57.82 | 11787 | 58 | 51.59 |
| 11766 | 56 | 48.25 | 566 | 34 | 47.12 | 11978 | 21 | 43.42 |
| 11813 | 3 | 41.77 | 11803 | 1 | 39.49 | 11946 | 17 | 37.78 |
| 580 | 36 | 37.22 | 11938 | 16 | 37.04 | 6507 | 45 | 35.73 |
| 6707 | 52 | 34.70 | 33634 | 23 | 34.09 | 6518 | 47 | 33.26 |
| 23702 | 28 | 31.78 | 5511 | 44 | 30.72 | 62305 | 32 | 30.66 |
| 51700 | 29 | 29.55 | 11876 | 10 | 28.92 | 690 | 41 | 27.51 |
| 11858 | 5 | 26.38 | 11931 | 15 | 26.33 | 11902 | 11 | 26.17 |
| 11779 | 55 | 26.07 | 11874 | 9 | 25.94 | 33514 | 26 | 25.74 |
| 11993 | 22 | 25.06 | 11866 | 6 | 24.32 | 11910 | 13 | 24.20 |
| 11806 | 2 | 24.04 | 5508 | 43 | 23.55 | 11782 | 59 | 22.81 |
| 650 | 39 | 21.98 | 11819 | 4 | 21.85 | 11961 | 18 | 21.58 |
| 6618 | 49 | 21.43 | 53100 | 30 | 20.39 | 11927 | 14 | 20.38 |
| 5409 | 42 | 20.26 | 660 | 40 | 20.10 | 44120 | 27 | 20.02 |
| 6809 | 53 | 19.18 | 575 | 35 | 17.99 | 11785 | 57 | 17.02 |
| 540 | 33 | 16.59 | 33511 | 24 | 16.30 | 11968 | 19 | 15.36 |
| 11774 | 54 | 14.87 | 6628 | 50 | 14.76 | 23212 | 31 | 14.05 |
| 6513 | 46 | 13.96 | 6702 | 51 | 13.69 | 625 | 38 | 13.41 |
| 33631 | 25 | 13.08 | 11867 | 7 | 12.46 | 6605 | 48 | 11.02 |
| 11903 | 12 | 10.72 | 600 | 37 | 10.49 | | | |
| AVERAGE: | | 26.30 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 6605 | 48 | 912.26 | 690 | 41 | 682.45 | 11910 | 13 | 498.71 |
| 5508 | 43 | 441.58 | 11978 | 21 | 379.38 | 62305 | 32 | 358.17 |
| 11866 | 6 | 343.22 | 11876 | 10 | 342.03 | 11779 | 55 | 336.27 |
| 540 | 33 | 318.52 | 33511 | 24 | 282.20 | 11977 | 20 | 227.06 |
| 11867 | 7 | 212.96 | 11806 | 2 | 210.21 | 6702 | 51 | 204.87 |
| 11858 | 5 | 188.42 | 11868 | 8 | 183.57 | 11803 | 1 | 178.49 |
| 6518 | 47 | 175.89 | 5511 | 44 | 173.37 | 33514 | 26 | 163.77 |
| 33631 | 25 | 154.57 | 6507 | 45 | 151.71 | 11902 | 11 | 139.27 |
| 11993 | 22 | 135.93 | 575 | 35 | 135.32 | 11931 | 15 | 133.30 |
| 11961 | 18 | 129.60 | 51700 | 29 | 127.36 | 6707 | 52 | 123.83 |
| 660 | 40 | 116.27 | 44120 | 27 | 115.80 | 6809 | 53 | 113.74 |
| 566 | 34 | 107.24 | 11874 | 9 | 107.15 | 11774 | 54 | 105.44 |
| 625 | 38 | 103.17 | 6618 | 49 | 101.33 | 11813 | 3 | 95.63 |
| 11785 | 57 | 91.10 | 11968 | 19 | 89.61 | 11938 | 16 | 87.42 |
| 33634 | 23 | 84.22 | 11782 | 59 | 81.56 | 6628 | 50 | 80.37 |
| 23702 | 28 | 78.25 | 580 | 36 | 76.04 | 650 | 39 | 74.83 |
| 23212 | 31 | 74.50 | 11787 | 58 | 72.24 | 600 | 37 | 69.22 |
| 11903 | 12 | 64.18 | 11946 | 17 | 61.52 | 11766 | 56 | 53.06 |
| 53100 | 30 | 50.56 | 6513 | 46 | 44.68 | 11819 | 4 | 40.69 |
| 5409 | 42 | 39.50 | 11927 | 14 | 39.17 | | | |
| AVERAGE: | | 175.64 | | | | | | |

Table 1.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 53100 | 30 | 0.80 | 11787 | 58 | 0.80 | 11927 | 14 | 0.81 |
| 51700 | 29 | 0.81 | 650 | 39 | 0.82 | 11910 | 13 | 0.83 |
| 62305 | 32 | 0.84 | 11902 | 11 | 0.84 | 11903 | 12 | 0.84 |
| 11866 | 6 | 0.84 | 44120 | 27 | 0.84 | 11931 | 15 | 0.84 |
| 33634 | 23 | 0.84 | 11946 | 17 | 0.85 | 11938 | 16 | 0.86 |
| 11766 | 56 | 0.86 | 11876 | 10 | 0.86 | 625 | 38 | 0.87 |
| 6628 | 50 | 0.87 | 11806 | 2 | 0.87 | 11868 | 8 | 0.87 |
| 6809 | 53 | 0.87 | 33514 | 26 | 0.87 | 11977 | 20 | 0.88 |
| 11785 | 57 | 0.88 | 6513 | 46 | 0.88 | 11968 | 19 | 0.88 |
| 6507 | 45 | 0.88 | 11961 | 18 | 0.88 | 11993 | 22 | 0.89 |
| 33511 | 24 | 0.89 | 6707 | 52 | 0.89 | 11774 | 54 | 0.89 |
| 11819 | 4 | 0.89 | 6518 | 47 | 0.89 | 540 | 33 | 0.90 |
| 6618 | 49 | 0.90 | 11874 | 9 | 0.90 | 11779 | 55 | 0.90 |
| 23702 | 28 | 0.90 | 33631 | 25 | 0.90 | 11782 | 59 | 0.90 |
| 11978 | 21 | 0.90 | 11813 | 3 | 0.90 | 11803 | 1 | 0.90 |
| 23212 | 31 | 0.90 | 580 | 36 | 0.91 | 11867 | 7 | 0.91 |
| 5409 | 42 | 0.91 | 566 | 34 | 0.91 | 5511 | 44 | 0.91 |
| 5508 | 43 | 0.92 | 690 | 41 | 0.92 | 575 | 35 | 0.92 |
| 6702 | 51 | 0.92 | 660 | 40 | 0.92 | 6605 | 48 | 0.92 |
| 11858 | 5 | 0.93 | 600 | 37 | 0.93 | | | |
| AVERAGE: | | 0.88 | | | | | | |

Table 1.5c. Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| | | | | |
|----|-------------|-------------|--------|-------|
| 1 | 18.02916667 | 48.89694449 | 209.0 | 11803 |
| 2 | 17.57805559 | 48.75055559 | 409.0 | 11806 |
| 3 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 4 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 5 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 6 | 18.77527782 | 49.43916669 | 423.0 | 11866 |
| 7 | 18.59388892 | 48.76972226 | 260.0 | 11867 |
| 8 | 19.18305556 | 49.36833335 | 780.0 | 11868 |
| 9 | 19.72527782 | 49.03916667 | 640.0 | 11874 |
| 10 | 19.91055560 | 49.14000001 | 972.0 | 11876 |
| 11 | 19.09388889 | 48.31916668 | 355.0 | 11902 |
| 12 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 13 | 19.64666670 | 48.64444448 | 1015.0 | 11910 |
| 14 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 15 | 20.23583335 | 49.18944445 | 1778.0 | 11931 |
| 16 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 17 | 20.80138893 | 48.71666670 | 575.0 | 11946 |
| 18 | 20.84583338 | 49.25972224 | 485.0 | 11961 |
| 19 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 20 | 21.91388894 | 49.25333335 | 305.0 | 11977 |
| 21 | 21.73472226 | 48.66805559 | 104.0 | 11978 |
| 22 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 23 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 24 | 23.00000000 | 49.20000001 | 594.0 | 33511 |
| 25 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 26 | 22.50000003 | 48.90000005 | 205.0 | 33514 |
| 27 | 19.02805556 | 47.06111111 | 153.0 | 44120 |
| 28 | 17.67472226 | 47.71000004 | 117.0 | 23702 |
| 29 | 20.53611114 | 48.49527780 | 309.0 | 51700 |
| 30 | 20.01666667 | 47.86666671 | 1011.0 | 53100 |
| 31 | 17.26722224 | 47.88972227 | 121.0 | 23212 |
| 32 | 21.65888892 | 48.38083335 | 100.0 | 62305 |

| | | | | |
|----|-------------|-------------|--------|-------|
| 33 | 18.19166668 | 50.06166667 | 206.0 | 540 |
| 34 | 19.80194449 | 50.07194445 | 237.0 | 566 |
| 35 | 20.98444450 | 50.01888889 | 209.0 | 575 |
| 36 | 22.02916667 | 50.11527778 | 212.0 | 580 |
| 37 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 38 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 39 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 40 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 41 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 42 | 18.92027783 | 49.99638894 | 270.0 | 5409 |
| 43 | 19.09527778 | 50.08500000 | 255.0 | 5508 |
| 44 | 19.95861116 | 50.06416667 | 206.0 | 5511 |
| 45 | 19.68805559 | 49.72583337 | 360.0 | 6507 |
| 46 | 19.51888892 | 49.61166670 | 697.0 | 6513 |
| 47 | 19.69583337 | 49.47194447 | 615.0 | 6518 |
| 48 | 20.41833336 | 49.69361115 | 515.0 | 6605 |
| 49 | 20.43166669 | 49.44555558 | 445.0 | 6618 |
| 50 | 20.88638894 | 49.34972224 | 445.0 | 6628 |
| 51 | 21.29583335 | 49.73527782 | 285.0 | 6702 |
| 52 | 21.17250001 | 49.43805558 | 519.0 | 6707 |
| 53 | 22.06333334 | 49.33916668 | 470.0 | 6809 |
| 54 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 55 | 17.70777781 | 48.90277782 | 383.0 | 11779 |
| 56 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 57 | 18.24055557 | 49.54111114 | 436.0 | 11785 |
| 58 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 59 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 1.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 15 | 15 | 172.06 | 16 | 16 | 99.56 | 2 | 2 | 86.80 |
| 12 | 12 | 76.43 | 26 | 26 | 73.34 | 9 | 9 | 68.69 |
| 8 | 8 | 64.73 | 11 | 11 | 58.23 | 21 | 21 | 56.80 |
| 20 | 20 | 51.05 | 13 | 13 | 51.03 | 3 | 3 | 50.20 |
| 1 | 1 | 46.07 | 27 | 27 | 45.20 | 5 | 5 | 40.76 |
| 23 | 23 | 40.28 | 25 | 25 | 39.51 | 19 | 19 | 37.51 |
| 4 | 4 | 34.72 | 17 | 17 | 33.68 | 24 | 24 | 26.41 |
| 10 | 10 | 25.24 | 38 | 38 | 24.70 | 14 | 14 | 24.62 |
| 36 | 36 | 24.19 | 30 | 30 | 23.35 | 22 | 22 | 23.10 |
| 34 | 34 | 21.06 | 18 | 18 | 19.71 | 31 | 31 | 19.06 |
| 35 | 35 | 18.89 | 32 | 32 | 17.75 | 6 | 6 | 15.41 |
| 29 | 29 | 15.02 | 33 | 33 | 13.52 | 37 | 37 | 13.50 |
| 28 | 28 | 11.11 | 7 | 7 | 9.99 | | | |
| AVERAGE: | | 41.40 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 16 | 16 | 912.26 | 9 | 9 | 667.60 | 11 | 11 | 481.24 |
| 1 | 1 | 318.14 | 36 | 36 | 301.93 | 37 | 37 | 226.40 |
| 19 | 19 | 202.88 | 12 | 12 | 173.81 | 15 | 15 | 162.41 |
| 22 | 22 | 146.39 | 3 | 3 | 135.32 | 25 | 25 | 128.37 |
| 13 | 13 | 126.10 | 28 | 28 | 111.39 | 21 | 21 | 110.49 |
| 8 | 8 | 107.89 | 2 | 2 | 107.24 | 17 | 17 | 101.33 |
| 38 | 38 | 87.41 | 20 | 20 | 86.47 | 26 | 26 | 83.79 |
| 14 | 14 | 82.03 | 30 | 30 | 81.56 | 24 | 24 | 81.53 |
| 18 | 18 | 80.37 | 31 | 31 | 73.23 | 23 | 23 | 72.92 |
| 5 | 5 | 68.13 | 7 | 7 | 64.65 | 32 | 32 | 60.80 |
| 27 | 27 | 53.06 | 6 | 6 | 42.61 | 4 | 4 | 40.81 |
| 29 | 29 | 34.59 | 10 | 10 | 32.94 | 35 | 35 | 26.96 |
| 34 | 34 | 26.11 | 33 | 33 | 22.71 | | | |
| AVERAGE: | | 150.63 | | | | | | |

Table 1.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 29 | 29 | 0.70 | 23 | 23 | 0.78 | 38 | 38 | 0.79 |
| 7 | 7 | 0.82 | 22 | 22 | 0.84 | 31 | 31 | 0.84 |
| 36 | 36 | 0.84 | 24 | 24 | 0.86 | 27 | 27 | 0.86 |
| 18 | 18 | 0.86 | 6 | 6 | 0.87 | 34 | 34 | 0.87 |
| 20 | 20 | 0.87 | 25 | 25 | 0.88 | 14 | 14 | 0.88 |
| 21 | 21 | 0.88 | 1 | 1 | 0.88 | 13 | 13 | 0.88 |
| 28 | 28 | 0.88 | 15 | 15 | 0.89 | 37 | 37 | 0.89 |
| 17 | 17 | 0.89 | 33 | 33 | 0.89 | 32 | 32 | 0.90 |
| 30 | 30 | 0.90 | 26 | 26 | 0.90 | 11 | 11 | 0.90 |
| 35 | 35 | 0.90 | 4 | 4 | 0.91 | 19 | 19 | 0.91 |
| 10 | 10 | 0.91 | 9 | 9 | 0.91 | 16 | 16 | 0.91 |
| 8 | 8 | 0.91 | 2 | 2 | 0.92 | 12 | 12 | 0.92 |
| 3 | 3 | 0.92 | 5 | 5 | 0.92 | | | |
| AVERAGE: | | 0.88 | | | | | | |

Table 1.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda(x) | fi(y) | h |
|-------|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 18.92027783 | 49.99638894 | 270.0 |
| 11 | 19.09527778 | 50.08500000 | 255.0 |
| 12 | 19.95861116 | 50.06416667 | 206.0 |
| 13 | 19.68805559 | 49.72583337 | 360.0 |
| 14 | 19.51888892 | 49.61166670 | 697.0 |
| 15 | 19.69583337 | 49.47194447 | 615.0 |
| 16 | 20.41833336 | 49.69361115 | 515.0 |
| 17 | 20.43166669 | 49.44555558 | 445.0 |
| 18 | 20.88638894 | 49.34972224 | 445.0 |
| 19 | 21.29583335 | 49.73527782 | 285.0 |
| 20 | 21.17250001 | 49.43805558 | 519.0 |
| 21 | 22.06333334 | 49.33916668 | 470.0 |
| 22 | 18.76583337 | 49.43611113 | 468.0 |
| 23 | 20.21500001 | 49.19527779 | 2635.0 |
| 24 | 20.23444446 | 49.18944445 | 1778.0 |
| 25 | 20.84277782 | 49.26027779 | 485.0 |
| 26 | 21.64638892 | 49.21472223 | 208.0 |
| 27 | 17.54194447 | 49.77722226 | 749.0 |
| 28 | 18.24055557 | 49.54111114 | 436.0 |
| 29 | 18.44777780 | 49.54611114 | 1322.0 |
| 30 | 18.12166667 | 49.69833337 | 250.0 |
| 31 | 17.70777781 | 48.90277782 | 383.0 |
| 32 | 17.56972225 | 49.32055557 | 222.0 |
| 33 | 23.63333337 | 50.25000001 | 252.0 |
| 34 | 23.16666668 | 49.80000004 | 232.0 |
| 35 | 23.38333335 | 49.95000005 | 245.0 |
| 36 | 23.56694447 | 49.36222224 | 275.0 |
| 37 | 23.03333334 | 49.15000001 | 594.0 |
| 38 | 22.46666669 | 48.90000005 | 205.0 |

Table 1.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 5 | 5 | 51.59 | 3 | 3 | 48.25 | 14 | 14 | 42.83 |
| 7 | 7 | 39.49 | 18 | 18 | 29.27 | 9 | 9 | 26.92 |
| 2 | 2 | 26.07 | 8 | 8 | 24.04 | 17 | 17 | 23.44 |
| 6 | 6 | 22.81 | 10 | 10 | 21.85 | 11 | 11 | 21.25 |
| 13 | 13 | 20.14 | 4 | 4 | 17.02 | 15 | 15 | 16.59 |
| 1 | 1 | 14.87 | 16 | 16 | 13.96 | 12 | 12 | 8.63 |
| AVERAGE: | | 26.06 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 18 | 18 | 667.05 | 2 | 2 | 391.11 | 15 | 15 | 318.69 |
| 7 | 7 | 299.68 | 12 | 12 | 252.93 | 11 | 11 | 252.91 |
| 13 | 13 | 249.28 | 8 | 8 | 183.86 | 9 | 9 | 124.87 |
| 1 | 1 | 107.25 | 4 | 4 | 91.14 | 6 | 6 | 81.56 |
| 5 | 5 | 72.24 | 3 | 3 | 53.06 | 10 | 10 | 51.01 |
| 16 | 16 | 48.89 | 14 | 14 | 37.67 | 17 | 17 | 34.22 |
| AVERAGE: | | 184.30 | | | | | | |

Table 1.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 5 | 5 | 0.80 | 12 | 12 | 0.83 | 14 | 14 | 0.84 |
| 3 | 3 | 0.86 | 8 | 8 | 0.87 | 9 | 9 | 0.88 |
| 4 | 4 | 0.88 | 13 | 13 | 0.89 | 1 | 1 | 0.89 |
| 10 | 10 | 0.89 | 15 | 15 | 0.90 | 2 | 2 | 0.90 |
| 6 | 6 | 0.90 | 17 | 17 | 0.90 | 7 | 7 | 0.90 |
| 18 | 18 | 0.91 | 16 | 16 | 0.92 | 11 | 11 | 0.93 |
| AVERAGE: | | 0.88 | | | | | | |

Table 1.7c. Station parameters of the series system of Czech Republic and near border series from Slovakia, Poland

| index | lambda(x) | fi(y) | h |
|-------|-------------|-------------|--------|
| 1 | 17.57000003 | 49.32000002 | 222.0 |
| 2 | 17.71000004 | 48.90000005 | 383.0 |
| 3 | 17.54000003 | 49.78000004 | 749.0 |
| 4 | 18.24000001 | 49.54000003 | 436.0 |
| 5 | 18.45000002 | 49.55000003 | 1322.0 |
| 6 | 18.12000001 | 49.70000004 | 250.0 |
| 7 | 18.02916667 | 48.89694449 | 209.0 |
| 8 | 17.57805559 | 48.75055559 | 409.0 |
| 9 | 17.11055556 | 48.16861112 | 287.0 |
| 10 | 17.68055559 | 48.49194447 | 178.0 |
| 11 | 18.19416668 | 47.87305560 | 115.0 |
| 12 | 18.77527782 | 49.43916669 | 423.0 |
| 13 | 18.59388892 | 48.76972226 | 260.0 |
| 14 | 19.18305556 | 49.36833335 | 780.0 |
| 15 | 50.06166667 | 18.19166668 | 206.0 |
| 16 | 49.80805560 | 19.00111111 | 398.0 |
| 17 | 49.99638894 | 18.92027783 | 270.0 |
| 18 | 50.08500000 | 19.09527778 | 255.0 |

Annex 2. Minimum air temperature
(The station systems are the same as in Annex 1)

Table 2.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| kikin | 54 | 152.58 | palic | 52 | 83.92 | sacui | 57 | 80.96 |
| orade | 56 | 75.90 | milho | 68 | 50.99 | arad | 55 | 49.48 |
| bereg | 60 | 47.31 | hurba | 64 | 44.43 | sanni | 58 | 44.20 |
| sombo | 53 | 41.01 | 13703 | 2 | 39.31 | backi | 51 | 34.98 |
| donji | 47 | 34.97 | valpo | 50 | 32.61 | 48101 | 27 | 31.92 |
| 53521 | 31 | 31.53 | 25212 | 11 | 31.34 | satu | 59 | 31.23 |
| 23201 | 9 | 30.85 | lucen | 65 | 30.66 | kosic | 67 | 30.28 |
| 63411 | 40 | 29.48 | 46303 | 25 | 28.43 | khust | 61 | 27.81 |
| 58300 | 38 | 27.59 | 17308 | 7 | 26.40 | 73302 | 43 | 25.07 |
| 44121 | 22 | 24.99 | 61709 | 39 | 24.90 | 34211 | 15 | 24.87 |
| uzhgo | 62 | 24.64 | 28700 | 14 | 24.18 | 23703 | 10 | 24.09 |
| 55706 | 34 | 23.97 | 43613 | 21 | 23.87 | 36100 | 16 | 23.50 |
| 14706 | 3 | 23.33 | 57311 | 36 | 22.55 | 44527 | 24 | 21.61 |
| 52819 | 29 | 21.26 | 54306 | 32 | 21.24 | 44214 | 23 | 21.15 |
| 39113 | 20 | 21.09 | brati | 63 | 20.78 | bjelo | 44 | 20.72 |
| 66519 | 42 | 20.34 | daruv | 45 | 20.09 | 26505 | 12 | 19.94 |
| stos | 66 | 19.87 | 36407 | 17 | 19.07 | 16414 | 6 | 18.54 |
| 58113 | 37 | 18.14 | 51705 | 28 | 18.08 | 56300 | 35 | 17.11 |
| slavo | 49 | 16.94 | 64704 | 41 | 16.78 | 15307 | 4 | 16.40 |
| 47106 | 26 | 16.20 | osije | 48 | 15.78 | 36500 | 18 | 15.72 |
| 55502 | 33 | 15.44 | 27815 | 13 | 15.34 | 38605 | 19 | 15.04 |
| 16601 | 1 | 14.81 | 17809 | 8 | 14.20 | 16203 | 5 | 14.08 |
| djurd | 46 | 11.34 | 53101 | 30 | 9.84 | | | |
| AVERAGE: | | 29.22 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|--------|
| 48101 | 27 | 2231.88 | bjelo | 44 | 1025.61 | 52819 | 29 | 812.66 |
| 44214 | 23 | 619.14 | palic | 52 | 595.51 | kikin | 54 | 507.55 |
| 58300 | 38 | 488.70 | 46303 | 25 | 435.46 | 26505 | 12 | 430.94 |
| 43613 | 21 | 392.95 | daruv | 45 | 387.39 | 16414 | 6 | 353.48 |
| 36407 | 17 | 343.44 | 55502 | 33 | 339.91 | 17308 | 7 | 329.02 |
| 17809 | 8 | 325.25 | uzhgo | 62 | 276.25 | donji | 47 | 242.82 |
| milho | 68 | 232.13 | backi | 51 | 231.71 | arad | 55 | 209.49 |
| 13703 | 2 | 207.24 | sombo | 53 | 205.10 | stos | 66 | 199.46 |
| 57311 | 36 | 198.07 | 23201 | 9 | 197.26 | hurba | 64 | 192.45 |
| 34211 | 15 | 192.12 | bereg | 60 | 188.26 | 73302 | 43 | 175.40 |
| valpo | 50 | 154.68 | 61709 | 39 | 147.56 | 16203 | 5 | 146.93 |
| khust | 61 | 142.30 | sacui | 57 | 138.07 | slavo | 49 | 123.54 |
| 56300 | 35 | 121.37 | 25212 | 11 | 111.37 | orade | 56 | 108.48 |
| 51705 | 28 | 105.41 | 54306 | 32 | 103.96 | 23703 | 10 | 100.31 |
| 66519 | 42 | 97.41 | 27815 | 13 | 94.31 | 28700 | 14 | 83.46 |
| 15307 | 4 | 78.19 | 36100 | 16 | 77.92 | 53521 | 31 | 77.83 |
| 16601 | 1 | 75.79 | osije | 48 | 75.57 | 36500 | 18 | 67.15 |
| djurd | 46 | 62.49 | 63411 | 40 | 54.92 | kosic | 67 | 51.52 |
| 14706 | 3 | 51.06 | 64704 | 41 | 50.05 | 44121 | 22 | 46.42 |
| brati | 63 | 45.91 | lucen | 65 | 44.48 | 39113 | 20 | 43.74 |
| sanni | 58 | 43.71 | satu | 59 | 42.41 | 55706 | 34 | 29.13 |
| 44527 | 24 | 27.51 | 58113 | 37 | 26.19 | 38605 | 19 | 25.51 |
| 47106 | 26 | 14.44 | 53101 | 30 | 9.84 | | | |
| AVERAGE: | | 227.46 | | | | | | |

Table 2.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 53101 | 30 | 0.65 | slavo | 49 | 0.65 | 47106 | 26 | 0.72 |
| milho | 68 | 0.73 | 61709 | 39 | 0.73 | 43613 | 21 | 0.73 |
| 38605 | 19 | 0.73 | lucen | 65 | 0.74 | orade | 56 | 0.75 |
| 36407 | 17 | 0.75 | 27815 | 13 | 0.76 | kosic | 67 | 0.76 |
| 16601 | 1 | 0.77 | 17308 | 7 | 0.77 | 26505 | 12 | 0.77 |
| 44121 | 22 | 0.79 | satu | 59 | 0.79 | 52819 | 29 | 0.79 |
| bjelo | 44 | 0.79 | brati | 63 | 0.79 | 36500 | 18 | 0.80 |
| khust | 61 | 0.80 | 36100 | 16 | 0.80 | 44214 | 23 | 0.80 |
| uzhgo | 62 | 0.80 | stos | 66 | 0.81 | bereg | 60 | 0.81 |
| 23201 | 9 | 0.81 | 34211 | 15 | 0.81 | 73302 | 43 | 0.81 |
| 58113 | 37 | 0.81 | 13703 | 2 | 0.81 | arad | 55 | 0.81 |
| 16203 | 5 | 0.82 | 51705 | 28 | 0.82 | 16414 | 6 | 0.82 |
| 17809 | 8 | 0.82 | 25212 | 11 | 0.82 | 44527 | 24 | 0.82 |
| djurd | 46 | 0.82 | 46303 | 25 | 0.83 | 39113 | 20 | 0.83 |
| 54306 | 32 | 0.83 | 63411 | 40 | 0.83 | 64704 | 41 | 0.83 |
| 23703 | 10 | 0.83 | sacui | 57 | 0.83 | 57311 | 36 | 0.84 |
| 53521 | 31 | 0.84 | 28700 | 14 | 0.84 | 15307 | 4 | 0.84 |
| backi | 51 | 0.84 | 48101 | 27 | 0.84 | 55502 | 33 | 0.85 |
| 56300 | 35 | 0.85 | sanni | 58 | 0.85 | daruv | 45 | 0.85 |
| hurba | 64 | 0.85 | 66519 | 42 | 0.86 | 14706 | 3 | 0.86 |
| osije | 48 | 0.86 | sombo | 53 | 0.86 | valpo | 50 | 0.87 |
| 58300 | 38 | 0.87 | donji | 47 | 0.87 | palic | 52 | 0.87 |
| 55706 | 34 | 0.89 | kikin | 54 | 0.91 | | | |
| AVERAGE: | | 0.81 | | | | | | |

Table 2.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| BL | 11 | 145.26 | NE | 27 | 139.70 | VL | 2 | 128.53 |
| SE | 29 | 108.06 | BB | 39 | 107.00 | PA | 13 | 97.86 |
| BP | 28 | 91.26 | BJ | 3 | 80.22 | BN | 7 | 78.49 |
| SP | 25 | 76.13 | LJ | 30 | 73.52 | CA | 12 | 72.40 |
| TI | 6 | 69.01 | CU | 37 | 66.16 | VA | 21 | 62.37 |
| NS | 15 | 60.84 | KV | 35 | 48.51 | VS | 18 | 48.37 |
| VG | 26 | 44.46 | ZG | 32 | 41.49 | BC | 31 | 38.30 |
| SO | 14 | 37.68 | SN | 5 | 37.55 | KG | 24 | 35.77 |
| LO | 19 | 31.39 | OS | 1 | 28.24 | SU | 22 | 27.24 |
| SM | 20 | 25.11 | ZR | 16 | 24.00 | TS | 10 | 22.78 |
| KI | 17 | 22.65 | PO | 34 | 21.17 | ZL | 33 | 20.72 |
| ZA | 38 | 19.72 | KS | 36 | 14.62 | SZ | 4 | 13.26 |
| OR | 8 | 11.14 | SC | 9 | 11.06 | BG | 23 | 10.90 |
| AVERAGE: | | 53.67 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| BN | 7 | 9412.46 | BJ | 3 | 2188.17 | OR | 8 | 1976.80 |
| PA | 13 | 637.46 | BP | 28 | 487.59 | BB | 39 | 407.29 |
| CU | 37 | 317.82 | NE | 27 | 306.08 | SO | 14 | 289.00 |
| VL | 2 | 273.21 | CA | 12 | 200.10 | BC | 31 | 192.20 |
| VG | 26 | 173.64 | KI | 17 | 167.46 | LJ | 30 | 159.37 |
| SP | 25 | 150.58 | SM | 20 | 147.35 | SE | 29 | 138.51 |
| TI | 6 | 124.11 | ZG | 32 | 114.93 | NS | 15 | 110.39 |
| SN | 5 | 109.33 | SC | 9 | 102.64 | VA | 21 | 100.10 |
| BL | 11 | 95.12 | VS | 18 | 88.89 | ZR | 16 | 72.48 |
| KG | 24 | 54.60 | LO | 19 | 47.16 | OS | 1 | 42.51 |
| KV | 35 | 38.99 | ZL | 33 | 32.38 | SZ | 4 | 26.81 |
| PO | 34 | 24.69 | TS | 10 | 23.62 | SU | 22 | 20.09 |
| ZA | 38 | 18.42 | KS | 36 | 17.30 | BG | 23 | 11.94 |
| AVERAGE: | | 484.66 | | | | | | |

Table 2.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| ZG | 32 | 0.60 | OR | 8 | 0.62 | SC | 9 | 0.63 |
| ZL | 33 | 0.63 | PO | 34 | 0.69 | BB | 39 | 0.70 |
| ZA | 38 | 0.75 | TS | 10 | 0.75 | VS | 18 | 0.77 |
| KS | 36 | 0.78 | BC | 31 | 0.79 | LJ | 30 | 0.79 |
| CU | 37 | 0.80 | VA | 21 | 0.80 | BL | 11 | 0.81 |
| NE | 27 | 0.81 | SZ | 4 | 0.81 | BG | 23 | 0.81 |
| CA | 12 | 0.82 | KV | 35 | 0.82 | SN | 5 | 0.83 |
| VG | 26 | 0.83 | VL | 2 | 0.83 | BN | 7 | 0.83 |
| SM | 20 | 0.83 | BJ | 3 | 0.84 | KG | 24 | 0.84 |
| TI | 6 | 0.84 | SP | 25 | 0.84 | LO | 19 | 0.86 |
| SU | 22 | 0.86 | ZR | 16 | 0.86 | SO | 14 | 0.87 |
| PA | 13 | 0.88 | OS | 1 | 0.88 | BP | 28 | 0.88 |
| NS | 15 | 0.89 | SE | 29 | 0.89 | KI | 17 | 0.92 |
| AVERAGE: | | 0.80 | | | | | | |

Table 2.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

I. TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 523328 | 55 | 244.49 | 539357 | 66 | 205.93 | 538416 | 65 | 183.43 |
| 646247 | 100 | 174.10 | 13295 | 132 | 151.97 | 523108 | 54 | 150.19 |
| 528518 | 62 | 125.03 | 530801 | 64 | 124.81 | 634322 | 95 | 123.29 |
| 428632 | 19 | 117.30 | 523530 | 56 | 115.29 | 359521 | 6 | 113.19 |
| 509649 | 44 | 88.32 | 13173 | 135 | 85.90 | 430608 | 20 | 83.27 |
| 709352 | 110 | 82.68 | 436447 | 21 | 80.05 | 515231 | 49 | 78.74 |
| 412721 | 11 | 76.12 | 525215 | 58 | 75.76 | 444127 | 26 | 73.87 |
| 346452 | 1 | 73.84 | 647334 | 101 | 71.37 | 622544 | 91 | 70.99 |
| 642540 | 99 | 70.53 | 506422 | 41 | 69.78 | 13174 | 131 | 68.33 |
| 511349 | 46 | 67.53 | 415816 | 14 | 65.63 | 502317 | 40 | 65.36 |
| 722205 | 115 | 64.51 | 33634 | 136 | 63.36 | 635347 | 96 | 62.72 |
| 57311 | 127 | 62.04 | 518231 | 52 | 61.59 | 428307 | 18 | 61.27 |
| 413838 | 12 | 60.48 | 608121 | 82 | 60.46 | 751555 | 123 | 59.53 |
| 600608 | 77 | 58.14 | 359257 | 5 | 58.10 | 655650 | 105 | 56.99 |
| 542532 | 69 | 56.38 | 651305 | 103 | 54.96 | 13183 | 134 | 54.44 |
| 2802 | 130 | 53.78 | 352557 | 4 | 53.21 | 456526 | 35 | 53.08 |
| 347357 | 2 | 52.54 | 719507 | 114 | 50.84 | 546115 | 70 | 50.68 |
| 551716 | 74 | 50.22 | 453344 | 32 | 49.13 | 604037 | 79 | 48.89 |
| 66519 | 125 | 48.69 | 500432 | 37 | 47.73 | 443639 | 25 | 47.65 |
| 711305 | 112 | 47.50 | 517545 | 51 | 47.07 | 748253 | 122 | 46.50 |
| 741640 | 120 | 46.43 | 13285 | 133 | 46.18 | 33658 | 137 | 45.20 |
| 501252 | 38 | 44.88 | 617220 | 87 | 44.87 | 606705 | 81 | 44.73 |
| 441757 | 24 | 44.25 | 610244 | 83 | 43.32 | 622303 | 90 | 43.03 |
| 444820 | 28 | 42.56 | 349835 | 3 | 41.99 | 511912 | 48 | 41.92 |
| 509441 | 43 | 41.65 | 656621 | 107 | 40.36 | 523703 | 57 | 40.08 |
| 758355 | 124 | 39.64 | 425606 | 17 | 39.10 | 703156 | 108 | 39.08 |
| 553254 | 75 | 37.95 | 519622 | 53 | 37.33 | 708430 | 109 | 37.00 |
| 632229 | 93 | 36.01 | 33638 | 138 | 35.78 | 722657 | 116 | 35.76 |
| 618518 | 89 | 35.39 | 414352 | 13 | 35.38 | 455200 | 34 | 34.95 |
| 655522 | 104 | 34.86 | 446853 | 30 | 34.55 | 639744 | 98 | 34.52 |
| 714623 | 113 | 32.51 | 530535 | 63 | 32.28 | 525323 | 59 | 32.20 |
| 511849 | 47 | 31.68 | 557334 | 76 | 30.95 | 438238 | 22 | 30.79 |
| 551459 | 72 | 30.29 | 602213 | 78 | 30.21 | 401321 | 7 | 30.10 |
| 439534 | 23 | 30.04 | 650727 | 102 | 29.72 | 407500 | 9 | 29.34 |
| 541601 | 68 | 28.14 | 58300 | 129 | 27.59 | 541154 | 67 | 26.61 |
| 635658 | 97 | 26.45 | 632432 | 94 | 26.11 | 614740 | 86 | 25.78 |
| 417530 | 15 | 25.16 | 605537 | 80 | 24.90 | 452452 | 31 | 24.09 |
| 33647 | 139 | 23.57 | 551621 | 73 | 23.33 | 632130 | 92 | 23.10 |
| 406421 | 8 | 22.66 | 507158 | 42 | 22.37 | 548409 | 71 | 22.14 |
| 739615 | 118 | 22.12 | 517507 | 50 | 22.12 | 73302 | 128 | 21.71 |
| 611355 | 84 | 21.41 | 444417 | 27 | 21.20 | 422751 | 16 | 20.17 |
| 747356 | 121 | 19.93 | 64704 | 126 | 19.36 | 454936 | 33 | 19.10 |
| 740330 | 119 | 18.89 | 33657 | 140 | 18.73 | 527527 | 61 | 17.44 |
| 457600 | 36 | 17.15 | 614436 | 85 | 16.57 | 737439 | 117 | 15.80 |
| 509940 | 45 | 15.45 | 445718 | 29 | 15.30 | 502141 | 39 | 13.77 |
| 408800 | 10 | 13.67 | 710736 | 111 | 13.14 | 656555 | 106 | 12.77 |
| 525358 | 60 | 12.38 | 617637 | 88 | 11.68 | | | |
| AVERAGE: | | 51.14 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 430608 | 20 | 1302.34 | 530801 | 64 | 623.72 | 58300 | 129 | 555.48 |
| 417530 | 15 | 490.07 | 523108 | 54 | 477.27 | 538416 | 65 | 459.63 |
| 33658 | 137 | 444.29 | 622544 | 91 | 404.00 | 13174 | 131 | 365.77 |
| 452452 | 31 | 355.00 | 2802 | 130 | 354.72 | 33638 | 138 | 351.93 |
| 642540 | 99 | 313.15 | 506422 | 41 | 311.39 | 523328 | 55 | 291.21 |
| 13173 | 135 | 281.71 | 539357 | 66 | 276.39 | 13285 | 133 | 263.10 |
| 511349 | 46 | 245.40 | 553254 | 75 | 236.69 | 646247 | 100 | 230.80 |
| 456526 | 35 | 225.71 | 13295 | 132 | 220.95 | 608121 | 82 | 219.31 |
| 428632 | 19 | 216.59 | 73302 | 128 | 189.61 | 632432 | 94 | 178.60 |
| 518231 | 52 | 176.02 | 33647 | 139 | 172.57 | 57311 | 127 | 159.53 |
| 634322 | 95 | 153.38 | 509649 | 44 | 151.65 | 414352 | 13 | 151.40 |
| 415816 | 14 | 149.03 | 502317 | 40 | 148.13 | 604037 | 79 | 146.38 |
| 617220 | 87 | 142.50 | 528518 | 62 | 139.77 | 647334 | 101 | 139.65 |
| 523530 | 56 | 130.30 | 66519 | 125 | 128.01 | 509441 | 43 | 126.81 |
| 606705 | 81 | 125.20 | 515231 | 49 | 125.18 | 359521 | 6 | 122.26 |
| 33634 | 136 | 119.25 | 709352 | 110 | 117.05 | 708430 | 109 | 116.96 |
| 546115 | 70 | 116.50 | 656621 | 107 | 110.60 | 610244 | 83 | 105.82 |
| 622303 | 90 | 105.78 | 64704 | 126 | 104.36 | 453344 | 32 | 103.18 |
| 525215 | 58 | 102.53 | 758355 | 124 | 101.10 | 412721 | 11 | 101.01 |
| 741640 | 120 | 100.70 | 436447 | 21 | 98.13 | 439534 | 23 | 95.79 |
| 711305 | 112 | 94.53 | 618518 | 89 | 93.96 | 444127 | 26 | 89.58 |
| 635347 | 96 | 89.21 | 548409 | 71 | 85.36 | 600608 | 77 | 84.10 |
| 457600 | 36 | 83.67 | 542532 | 69 | 82.60 | 359257 | 5 | 81.89 |
| 655650 | 105 | 79.51 | 425606 | 17 | 76.17 | 500432 | 37 | 75.68 |
| 352557 | 4 | 75.18 | 446853 | 30 | 74.13 | 632229 | 93 | 72.31 |
| 443639 | 25 | 72.25 | 413838 | 12 | 71.78 | 428307 | 18 | 69.49 |
| 605537 | 80 | 68.71 | 347357 | 2 | 65.46 | 740330 | 119 | 63.98 |
| 557334 | 76 | 63.87 | 722205 | 115 | 62.57 | 703156 | 108 | 60.77 |
| 639744 | 98 | 57.72 | 541154 | 67 | 57.33 | 346452 | 1 | 56.26 |
| 519622 | 53 | 56.24 | 722657 | 116 | 56.12 | 444820 | 28 | 55.79 |
| 445718 | 29 | 55.13 | 13183 | 134 | 54.40 | 719507 | 114 | 51.15 |
| 441757 | 24 | 50.91 | 349835 | 3 | 50.34 | 651305 | 103 | 49.99 |
| 509940 | 45 | 49.42 | 455200 | 34 | 48.49 | 635658 | 97 | 45.79 |
| 517545 | 51 | 44.59 | 517507 | 50 | 43.89 | 602213 | 78 | 43.88 |
| 614436 | 85 | 43.42 | 551459 | 72 | 43.38 | 551716 | 74 | 41.03 |
| 714623 | 113 | 40.97 | 523703 | 57 | 40.31 | 650727 | 102 | 39.96 |
| 438238 | 22 | 39.79 | 408800 | 10 | 39.79 | 655522 | 104 | 39.16 |
| 530535 | 63 | 38.87 | 501252 | 38 | 38.62 | 401321 | 7 | 38.40 |
| 511849 | 47 | 38.40 | 748253 | 122 | 37.74 | 541601 | 68 | 37.66 |
| 511912 | 48 | 37.13 | 407500 | 9 | 36.91 | 632130 | 92 | 36.66 |
| 751555 | 123 | 33.50 | 739615 | 118 | 29.21 | 525323 | 59 | 28.19 |
| 614740 | 86 | 26.85 | 737439 | 117 | 24.93 | 507158 | 42 | 23.96 |
| 444417 | 27 | 23.68 | 747356 | 121 | 23.07 | 33657 | 140 | 22.90 |
| 611355 | 84 | 22.65 | 527527 | 61 | 22.59 | 422751 | 16 | 21.26 |
| 551621 | 73 | 19.67 | 454936 | 33 | 17.86 | 406421 | 8 | 16.63 |
| 525358 | 60 | 15.91 | 617637 | 88 | 14.66 | 710736 | 111 | 14.51 |
| 502141 | 39 | 11.40 | 656555 | 106 | 9.80 | | | |
| AVERAGE: | | 128.34 | | | | | | |

Table 2.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 656555 | 106 | 0.50 | 455200 | 34 | 0.52 | 527527 | 61 | 0.57 |
| 737439 | 117 | 0.61 | 502141 | 39 | 0.62 | 501252 | 38 | 0.63 |
| 610244 | 83 | 0.65 | 551621 | 73 | 0.66 | 519622 | 53 | 0.68 |
| 622544 | 91 | 0.69 | 541601 | 68 | 0.70 | 542532 | 69 | 0.71 |
| 352557 | 4 | 0.71 | 614436 | 85 | 0.72 | 632130 | 92 | 0.72 |
| 646247 | 100 | 0.73 | 551459 | 72 | 0.73 | 709352 | 110 | 0.73 |
| 632229 | 93 | 0.73 | 622303 | 90 | 0.73 | 642540 | 99 | 0.74 |
| 515231 | 49 | 0.74 | 414352 | 13 | 0.74 | 438238 | 22 | 0.74 |
| 539357 | 66 | 0.74 | 525358 | 60 | 0.74 | 548409 | 71 | 0.74 |
| 347357 | 2 | 0.75 | 453344 | 32 | 0.75 | 454936 | 33 | 0.75 |
| 634322 | 95 | 0.76 | 511349 | 46 | 0.76 | 446853 | 30 | 0.76 |
| 456526 | 35 | 0.76 | 13183 | 134 | 0.76 | 602213 | 78 | 0.76 |
| 502317 | 40 | 0.76 | 553254 | 75 | 0.76 | 511912 | 48 | 0.76 |
| 511849 | 47 | 0.76 | 412721 | 11 | 0.77 | 703156 | 108 | 0.77 |
| 739615 | 118 | 0.77 | 445718 | 29 | 0.77 | 525215 | 58 | 0.78 |
| 523703 | 57 | 0.78 | 444820 | 28 | 0.78 | 525323 | 59 | 0.78 |
| 500432 | 37 | 0.78 | 517545 | 51 | 0.78 | 33657 | 140 | 0.78 |
| 600608 | 77 | 0.78 | 618518 | 89 | 0.78 | 443639 | 25 | 0.78 |
| 436447 | 21 | 0.78 | 425606 | 17 | 0.79 | 523328 | 55 | 0.79 |
| 605537 | 80 | 0.79 | 444417 | 27 | 0.79 | 2802 | 130 | 0.79 |
| 523530 | 56 | 0.79 | 507158 | 42 | 0.79 | 551716 | 74 | 0.79 |
| 457600 | 36 | 0.79 | 444127 | 26 | 0.79 | 33634 | 136 | 0.79 |
| 747356 | 121 | 0.80 | 428307 | 18 | 0.80 | 722657 | 116 | 0.80 |
| 651305 | 103 | 0.80 | 635347 | 96 | 0.80 | 748253 | 122 | 0.80 |
| 711305 | 112 | 0.80 | 13295 | 132 | 0.80 | 617220 | 87 | 0.80 |
| 417530 | 15 | 0.81 | 401321 | 7 | 0.81 | 439534 | 23 | 0.81 |
| 740330 | 119 | 0.81 | 617637 | 88 | 0.81 | 538416 | 65 | 0.81 |
| 346452 | 1 | 0.81 | 708430 | 109 | 0.81 | 557334 | 76 | 0.81 |
| 650727 | 102 | 0.81 | 64704 | 126 | 0.81 | 33647 | 139 | 0.81 |
| 73302 | 128 | 0.81 | 528518 | 62 | 0.81 | 406421 | 8 | 0.81 |
| 518231 | 52 | 0.81 | 608121 | 82 | 0.82 | 430608 | 20 | 0.82 |
| 719507 | 114 | 0.82 | 408800 | 10 | 0.82 | 635658 | 97 | 0.82 |
| 359257 | 5 | 0.82 | 639744 | 98 | 0.82 | 407500 | 9 | 0.82 |
| 541154 | 67 | 0.82 | 13285 | 133 | 0.83 | 57311 | 127 | 0.83 |
| 611355 | 84 | 0.83 | 349835 | 3 | 0.83 | 632432 | 94 | 0.83 |
| 722205 | 115 | 0.83 | 523108 | 54 | 0.83 | 509940 | 45 | 0.83 |
| 647334 | 101 | 0.83 | 714623 | 113 | 0.83 | 530535 | 63 | 0.83 |
| 606705 | 81 | 0.84 | 452452 | 31 | 0.84 | 509441 | 43 | 0.84 |
| 422751 | 16 | 0.84 | 509649 | 44 | 0.84 | 441757 | 24 | 0.84 |
| 413838 | 12 | 0.84 | 517507 | 50 | 0.84 | 546115 | 70 | 0.84 |
| 758355 | 124 | 0.85 | 655522 | 104 | 0.85 | 614740 | 86 | 0.85 |
| 604037 | 79 | 0.85 | 33658 | 137 | 0.85 | 359521 | 6 | 0.85 |
| 428632 | 19 | 0.85 | 415816 | 14 | 0.86 | 741640 | 120 | 0.86 |
| 13173 | 135 | 0.87 | 506422 | 41 | 0.87 | 530801 | 64 | 0.87 |
| 33638 | 138 | 0.87 | 656621 | 107 | 0.87 | 58300 | 129 | 0.87 |
| 751555 | 123 | 0.87 | 66519 | 125 | 0.88 | 710736 | 111 | 0.88 |
| 655650 | 105 | 0.89 | 13174 | 131 | 0.90 | | | |
| AVERAGE: | | 0.79 | | | | | | |

Table 2.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 16 | 16 | 207.45 | 22 | 22 | 86.84 | 30 | 30 | 80.13 |
| 53 | 53 | 69.47 | 37 | 37 | 55.36 | 11 | 11 | 54.23 |
| 36 | 36 | 52.49 | 49 | 49 | 52.07 | 35 | 35 | 43.82 |
| 48 | 48 | 41.72 | 19 | 19 | 41.03 | 44 | 44 | 35.47 |
| 12 | 12 | 33.56 | 17 | 17 | 33.09 | 42 | 42 | 33.03 |
| 38 | 38 | 32.26 | 45 | 45 | 31.96 | 31 | 31 | 31.70 |
| 40 | 40 | 31.50 | 32 | 32 | 29.44 | 13 | 13 | 29.00 |
| 41 | 41 | 28.90 | 29 | 29 | 28.71 | 25 | 25 | 27.99 |
| 23 | 23 | 27.61 | 47 | 47 | 26.78 | 10 | 10 | 24.40 |
| 3 | 3 | 23.02 | 28 | 28 | 22.91 | 18 | 18 | 22.70 |
| 50 | 50 | 22.69 | 52 | 52 | 22.55 | 7 | 7 | 22.42 |
| 2 | 2 | 22.14 | 51 | 51 | 21.92 | 6 | 6 | 20.69 |
| 27 | 27 | 20.66 | 8 | 8 | 19.63 | 20 | 20 | 17.65 |
| 9 | 9 | 17.32 | 24 | 24 | 17.00 | 4 | 4 | 16.39 |
| 46 | 46 | 16.32 | 39 | 39 | 15.03 | 34 | 34 | 14.49 |
| 43 | 43 | 13.36 | 1 | 1 | 13.31 | 14 | 14 | 12.97 |
| 5 | 5 | 12.63 | 21 | 21 | 11.95 | 15 | 15 | 11.50 |
| 26 | 26 | 9.92 | 33 | 33 | 9.33 | | | |
| AVERAGE: | | 32.46 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 30 | 30 | 434.25 | 6 | 6 | 365.92 | 9 | 9 | 351.89 |
| 29 | 29 | 335.62 | 49 | 49 | 263.68 | 26 | 26 | 227.77 |
| 38 | 38 | 217.24 | 44 | 44 | 193.48 | 47 | 47 | 191.20 |
| 13 | 13 | 181.09 | 8 | 8 | 179.82 | 12 | 12 | 170.20 |
| 24 | 24 | 165.09 | 35 | 35 | 162.20 | 34 | 34 | 161.04 |
| 36 | 36 | 156.44 | 33 | 33 | 145.78 | 7 | 7 | 139.81 |
| 45 | 45 | 137.79 | 25 | 25 | 128.07 | 16 | 16 | 126.64 |
| 21 | 21 | 126.60 | 3 | 3 | 122.96 | 22 | 22 | 116.59 |
| 20 | 20 | 112.88 | 27 | 27 | 91.83 | 19 | 19 | 82.51 |
| 48 | 48 | 78.60 | 46 | 46 | 76.80 | 11 | 11 | 75.38 |
| 18 | 18 | 72.27 | 42 | 42 | 70.00 | 15 | 15 | 69.30 |
| 4 | 4 | 65.57 | 37 | 37 | 61.27 | 14 | 14 | 59.05 |
| 1 | 1 | 55.52 | 53 | 53 | 53.33 | 40 | 40 | 49.25 |
| 31 | 31 | 48.35 | 52 | 52 | 43.81 | 2 | 2 | 42.37 |
| 39 | 39 | 41.80 | 32 | 32 | 40.07 | 5 | 5 | 39.67 |
| 17 | 17 | 37.31 | 51 | 51 | 35.59 | 50 | 50 | 32.21 |
| 43 | 43 | 31.53 | 41 | 41 | 30.83 | 10 | 10 | 30.63 |
| 23 | 23 | 29.86 | 28 | 28 | 15.85 | | | |
| AVERAGE: | | 120.28 | | | | | | |

Table 2.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 28 | 28 | 0.48 | 45 | 45 | 0.64 | 37 | 37 | 0.69 |
| 44 | 44 | 0.73 | 53 | 53 | 0.75 | 39 | 39 | 0.76 |
| 46 | 46 | 0.78 | 50 | 50 | 0.78 | 33 | 33 | 0.80 |
| 51 | 51 | 0.80 | 52 | 52 | 0.81 | 42 | 42 | 0.81 |
| 20 | 20 | 0.81 | 35 | 35 | 0.81 | 21 | 21 | 0.81 |
| 47 | 47 | 0.81 | 41 | 41 | 0.82 | 14 | 14 | 0.82 |
| 38 | 38 | 0.82 | 29 | 29 | 0.83 | 30 | 30 | 0.83 |
| 17 | 17 | 0.84 | 23 | 23 | 0.84 | 40 | 40 | 0.84 |
| 48 | 48 | 0.85 | 16 | 16 | 0.85 | 32 | 32 | 0.85 |
| 36 | 36 | 0.86 | 25 | 25 | 0.86 | 43 | 43 | 0.86 |
| 8 | 8 | 0.87 | 49 | 49 | 0.87 | 26 | 26 | 0.87 |
| 4 | 4 | 0.88 | 9 | 9 | 0.88 | 5 | 5 | 0.88 |
| 22 | 22 | 0.88 | 27 | 27 | 0.88 | 34 | 34 | 0.89 |
| 1 | 1 | 0.89 | 31 | 31 | 0.90 | 13 | 13 | 0.90 |
| 19 | 19 | 0.90 | 7 | 7 | 0.90 | 10 | 10 | 0.90 |
| 2 | 2 | 0.90 | 3 | 3 | 0.91 | 11 | 11 | 0.91 |
| 6 | 6 | 0.92 | 18 | 18 | 0.93 | 12 | 12 | 0.93 |
| 15 | 15 | 0.93 | 24 | 24 | 0.94 | | | |
| AVERAGE: | | 0.84 | | | | | | |

Table 2.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 650 | 39 | 110.48 | 6507 | 45 | 89.61 | 11779 | 55 | 86.49 |
| 6702 | 51 | 80.91 | 11931 | 15 | 79.98 | 6605 | 48 | 76.09 |
| 566 | 34 | 68.38 | 600 | 37 | 64.38 | 5508 | 43 | 63.60 |
| 625 | 38 | 62.41 | 6513 | 46 | 60.36 | 660 | 40 | 60.00 |
| 51700 | 29 | 58.24 | 11978 | 21 | 52.49 | 6809 | 53 | 51.41 |
| 11927 | 14 | 49.64 | 6707 | 52 | 47.72 | 6618 | 49 | 44.70 |
| 11785 | 57 | 42.23 | 11968 | 19 | 40.94 | 575 | 35 | 40.63 |
| 23212 | 31 | 37.68 | 5409 | 42 | 36.78 | 11868 | 8 | 35.19 |
| 5511 | 44 | 32.43 | 11819 | 4 | 32.24 | 11876 | 10 | 31.91 |
| 33631 | 25 | 31.73 | 11977 | 20 | 30.48 | 6518 | 47 | 28.45 |
| 580 | 36 | 27.27 | 11938 | 16 | 27.25 | 690 | 41 | 26.65 |
| 11866 | 6 | 25.20 | 62305 | 32 | 24.90 | 11874 | 9 | 24.83 |
| 11867 | 7 | 23.74 | 33634 | 23 | 22.34 | 540 | 33 | 22.28 |
| 11946 | 17 | 21.34 | 44120 | 27 | 20.51 | 11774 | 54 | 19.90 |
| 53100 | 30 | 19.52 | 11766 | 56 | 19.21 | 11803 | 1 | 18.93 |
| 11782 | 59 | 18.71 | 11902 | 11 | 18.68 | 11903 | 12 | 18.03 |
| 33511 | 24 | 17.58 | 11813 | 3 | 17.39 | 6628 | 50 | 17.32 |
| 11961 | 18 | 16.84 | 11993 | 22 | 15.47 | 23702 | 28 | 15.35 |
| 11806 | 2 | 14.79 | 33514 | 26 | 14.78 | 11858 | 5 | 14.19 |
| 11910 | 13 | 12.27 | 11787 | 58 | 9.79 | | | |
| AVERAGE: | | 37.16 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 11910 | 13 | 1403.81 | 6702 | 51 | 972.84 | 6618 | 49 | 682.88 |
| 33631 | 25 | 626.25 | 11946 | 17 | 471.65 | 11779 | 55 | 434.19 |
| 11874 | 9 | 385.99 | 6605 | 48 | 355.97 | 6507 | 45 | 340.45 |
| 6707 | 52 | 260.86 | 625 | 38 | 224.02 | 33634 | 23 | 214.51 |
| 566 | 34 | 208.05 | 44120 | 27 | 173.59 | 600 | 37 | 166.97 |
| 11803 | 1 | 161.30 | 11961 | 18 | 160.10 | 660 | 40 | 157.45 |
| 11785 | 57 | 154.13 | 11977 | 20 | 144.63 | 11868 | 8 | 134.24 |
| 5409 | 42 | 131.99 | 11876 | 10 | 125.00 | 33514 | 26 | 124.00 |
| 23702 | 28 | 122.76 | 650 | 39 | 121.20 | 11978 | 21 | 112.12 |
| 690 | 41 | 108.29 | 6513 | 46 | 107.69 | 62305 | 32 | 107.18 |
| 11927 | 14 | 103.46 | 11867 | 7 | 103.17 | 11938 | 16 | 102.64 |
| 575 | 35 | 101.54 | 11819 | 4 | 99.48 | 5511 | 44 | 94.17 |
| 580 | 36 | 91.55 | 6628 | 50 | 90.46 | 23212 | 31 | 81.94 |
| 11866 | 6 | 80.26 | 11931 | 15 | 76.75 | 6518 | 47 | 69.89 |
| 6809 | 53 | 63.49 | 5508 | 43 | 61.94 | 11782 | 59 | 53.80 |
| 11902 | 11 | 47.66 | 540 | 33 | 45.87 | 11766 | 56 | 40.00 |
| 11806 | 2 | 39.00 | 11968 | 19 | 36.13 | 11903 | 12 | 32.60 |
| 53100 | 30 | 32.41 | 11993 | 22 | 32.30 | 11774 | 54 | 28.09 |
| 11813 | 3 | 26.20 | 33511 | 24 | 25.74 | 51700 | 29 | 24.99 |
| 11858 | 5 | 15.45 | 11787 | 58 | 9.79 | | | |
| AVERAGE: | | 179.74 | | | | | | |

Table 2.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11910 | 13 | 0.68 | 11787 | 58 | 0.71 | 11868 | 8 | 0.72 |
| 11961 | 18 | 0.72 | 6628 | 50 | 0.72 | 11803 | 1 | 0.73 |
| 62305 | 32 | 0.73 | 650 | 39 | 0.73 | 11876 | 10 | 0.73 |
| 11902 | 11 | 0.74 | 11946 | 17 | 0.74 | 6518 | 47 | 0.75 |
| 6513 | 46 | 0.75 | 6809 | 53 | 0.75 | 11978 | 21 | 0.76 |
| 11867 | 7 | 0.76 | 33634 | 23 | 0.76 | 11927 | 14 | 0.76 |
| 11968 | 19 | 0.77 | 11874 | 9 | 0.77 | 11813 | 3 | 0.77 |
| 33511 | 24 | 0.78 | 6605 | 48 | 0.78 | 11931 | 15 | 0.78 |
| 11903 | 12 | 0.78 | 6707 | 52 | 0.79 | 53100 | 30 | 0.79 |
| 11785 | 57 | 0.79 | 44120 | 27 | 0.80 | 11806 | 2 | 0.80 |
| 11977 | 20 | 0.80 | 51700 | 29 | 0.80 | 11866 | 6 | 0.80 |
| 23212 | 31 | 0.80 | 690 | 41 | 0.80 | 540 | 33 | 0.80 |
| 11779 | 55 | 0.81 | 580 | 36 | 0.81 | 5409 | 42 | 0.81 |
| 11938 | 16 | 0.81 | 5508 | 43 | 0.81 | 33514 | 26 | 0.81 |
| 23702 | 28 | 0.82 | 625 | 38 | 0.82 | 6618 | 49 | 0.82 |
| 11774 | 54 | 0.82 | 33631 | 25 | 0.83 | 11819 | 4 | 0.83 |
| 6507 | 45 | 0.83 | 6702 | 51 | 0.83 | 11766 | 56 | 0.84 |
| 11858 | 5 | 0.84 | 11782 | 59 | 0.85 | 600 | 37 | 0.85 |
| 660 | 40 | 0.86 | 11993 | 22 | 0.86 | 566 | 34 | 0.86 |
| 575 | 35 | 0.87 | 5511 | 44 | 0.88 | | | |
| AVERAGE: | | 0.79 | | | | | | |

Table 2.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 13 | 13 | 89.61 | 19 | 19 | 80.91 | 2 | 2 | 68.38 |
| 5 | 5 | 64.38 | 11 | 11 | 63.60 | 16 | 16 | 61.82 |
| 14 | 14 | 60.36 | 8 | 8 | 60.00 | 6 | 6 | 59.91 |
| 20 | 20 | 47.72 | 17 | 17 | 44.70 | 30 | 30 | 42.23 |
| 21 | 21 | 40.94 | 3 | 3 | 40.63 | 10 | 10 | 36.78 |
| 25 | 25 | 35.58 | 23 | 23 | 35.21 | 29 | 29 | 32.93 |
| 12 | 12 | 32.43 | 15 | 15 | 28.45 | 22 | 22 | 25.20 |
| 1 | 1 | 22.28 | 34 | 34 | 22.17 | 33 | 33 | 21.67 |
| 24 | 24 | 20.56 | 7 | 7 | 19.57 | 32 | 32 | 18.71 |
| 4 | 4 | 18.70 | 27 | 27 | 18.39 | 37 | 37 | 18.07 |
| 18 | 18 | 17.32 | 26 | 26 | 16.84 | 9 | 9 | 16.11 |
| 28 | 28 | 15.80 | 38 | 38 | 15.02 | 39 | 39 | 12.45 |
| 36 | 36 | 12.02 | 31 | 31 | 9.79 | 35 | 35 | 8.39 |
| AVERAGE: | | 34.76 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 19 | 19 | 982.62 | 17 | 17 | 682.88 | 13 | 13 | 331.74 |
| 16 | 16 | 291.26 | 20 | 20 | 261.08 | 25 | 25 | 212.73 |
| 2 | 2 | 207.13 | 24 | 24 | 177.65 | 5 | 5 | 167.21 |
| 26 | 26 | 160.10 | 8 | 8 | 157.45 | 30 | 30 | 154.13 |
| 10 | 10 | 133.46 | 23 | 23 | 126.87 | 39 | 39 | 110.64 |
| 14 | 14 | 107.69 | 3 | 3 | 101.54 | 6 | 6 | 98.30 |
| 36 | 36 | 98.02 | 12 | 12 | 94.16 | 18 | 18 | 90.51 |
| 22 | 22 | 79.45 | 27 | 27 | 78.51 | 15 | 15 | 68.63 |
| 34 | 34 | 65.37 | 11 | 11 | 62.32 | 32 | 32 | 52.12 |
| 21 | 21 | 52.08 | 37 | 37 | 49.30 | 1 | 1 | 45.90 |
| 7 | 7 | 34.65 | 35 | 35 | 34.35 | 4 | 4 | 28.79 |
| 38 | 38 | 25.63 | 9 | 9 | 21.69 | 28 | 28 | 20.71 |
| 29 | 29 | 18.11 | 33 | 33 | 14.35 | 31 | 31 | 9.79 |
| AVERAGE: | | 141.25 | | | | | | |

Table 2.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 7 | 7 | 0.48 | 31 | 31 | 0.71 | 23 | 23 | 0.72 |
| 26 | 26 | 0.72 | 18 | 18 | 0.72 | 25 | 25 | 0.74 |
| 15 | 15 | 0.75 | 14 | 14 | 0.75 | 21 | 21 | 0.75 |
| 24 | 24 | 0.76 | 33 | 33 | 0.76 | 16 | 16 | 0.77 |
| 38 | 38 | 0.78 | 20 | 20 | 0.79 | 30 | 30 | 0.79 |
| 22 | 22 | 0.80 | 27 | 27 | 0.80 | 1 | 1 | 0.80 |
| 39 | 39 | 0.81 | 10 | 10 | 0.81 | 11 | 11 | 0.81 |
| 6 | 6 | 0.82 | 9 | 9 | 0.82 | 17 | 17 | 0.82 |
| 37 | 37 | 0.83 | 13 | 13 | 0.83 | 19 | 19 | 0.83 |
| 29 | 29 | 0.85 | 32 | 32 | 0.85 | 5 | 5 | 0.85 |
| 4 | 4 | 0.85 | 28 | 28 | 0.85 | 8 | 8 | 0.86 |
| 2 | 2 | 0.86 | 3 | 3 | 0.87 | 36 | 36 | 0.87 |
| 12 | 12 | 0.88 | 34 | 34 | 0.88 | 35 | 35 | 0.89 |
| AVERAGE: | | 0.80 | | | | | | |

Table 2.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

I. TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 2 | 2 | 86.49 | 16 | 16 | 59.83 | 4 | 4 | 42.22 |
| 14 | 14 | 40.83 | 12 | 12 | 36.17 | 17 | 17 | 36.08 |
| 13 | 13 | 34.54 | 10 | 10 | 30.87 | 18 | 18 | 27.79 |
| 15 | 15 | 22.28 | 7 | 7 | 21.67 | 9 | 9 | 19.97 |
| 1 | 1 | 19.90 | 3 | 3 | 19.21 | 6 | 6 | 18.71 |
| 8 | 8 | 14.79 | 11 | 11 | 13.75 | 5 | 5 | 9.79 |
| AVERAGE: | | 30.83 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 2 | 2 | 310.86 | 17 | 17 | 173.13 | 4 | 4 | 153.54 |
| 7 | 7 | 148.75 | 16 | 16 | 126.50 | 12 | 12 | 117.43 |
| 14 | 14 | 116.68 | 13 | 13 | 113.89 | 10 | 10 | 96.74 |
| 6 | 6 | 59.54 | 8 | 8 | 51.13 | 18 | 18 | 49.88 |
| 15 | 15 | 45.96 | 3 | 3 | 40.03 | 9 | 9 | 32.73 |
| 1 | 1 | 30.45 | 11 | 11 | 13.54 | 5 | 5 | 9.79 |
| AVERAGE: | | 93.92 | | | | | | |

Table 2.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 14 | 14 | 0.64 | 5 | 5 | 0.71 | 7 | 7 | 0.72 |
| 13 | 13 | 0.74 | 18 | 18 | 0.79 | 12 | 12 | 0.79 |
| 4 | 4 | 0.79 | 8 | 8 | 0.80 | 9 | 9 | 0.80 |
| 15 | 15 | 0.80 | 2 | 2 | 0.81 | 17 | 17 | 0.81 |
| 11 | 11 | 0.81 | 10 | 10 | 0.82 | 1 | 1 | 0.82 |
| 3 | 3 | 0.84 | 16 | 16 | 0.84 | 6 | 6 | 0.85 |
| AVERAGE: | | 0.79 | | | | | | |

Annex 3. Precipitation sum

Table 3.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.01): 31.00

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|--------|-------|-------|--------|-------|-------|--------|-------|-------|
| 16804 | 9 | 75.66 | vajsk | 209 | 64.76 | 54306 | 133 | 58.50 |
| 25714 | 26 | 58.40 | 62613 | 153 | 55.20 | 53215 | 125 | 53.97 |
| 58100 | 146 | 53.93 | 26704 | 39 | 50.85 | 33508 | 53 | 50.45 |
| 52510 | 120 | 48.47 | 42304 | 81 | 47.83 | 25711 | 25 | 47.76 |
| 26826 | 41 | 47.52 | 17540 | 224 | 47.43 | 24419 | 15 | 47.05 |
| 15604 | 4 | 46.66 | 43226 | 91 | 46.42 | 37522 | 73 | 46.16 |
| 54604 | 135 | 46.07 | 53513 | 128 | 45.52 | 44503 | 102 | 45.33 |
| marij | 198 | 45.21 | 25716 | 27 | 44.92 | 42808 | 85 | 44.69 |
| 65602 | 168 | 44.12 | 37040 | 225 | 43.28 | 54200 | 230 | 43.23 |
| 36506 | 65 | 41.97 | 42303 | 80 | 41.97 | 24421 | 16 | 41.95 |
| 56114 | 140 | 41.68 | 26501 | 34 | 41.26 | mokri | 208 | 40.72 |
| 62303 | 149 | 40.64 | 65604 | 169 | 40.33 | 11858 | 219 | 40.21 |
| ajmas | 186 | 38.46 | 16204 | 6 | 38.42 | 51303 | 115 | 38.24 |
| 26800 | 40 | 38.08 | sandr | 199 | 37.66 | 57108 | 145 | 37.06 |
| 25314 | 23 | 37.00 | 36100 | 63 | 36.34 | 37202 | 70 | 35.60 |
| horgo | 207 | 35.15 | 26602 | 38 | 33.23 | palic | 203 | 33.04 |
| 56205 | 141 | 32.99 | 64704 | 164 | 32.15 | 53300 | 126 | 31.99 |
| 55300 | 137 | 31.84 | 63608 | 161 | 31.55 | gola | 197 | 30.77 |
| 72203 | 175 | 30.64 | 58113 | 182 | 30.55 | 63700 | 162 | 29.94 |
| 73302 | 185 | 29.69 | 62800 | 154 | 28.84 | 43200 | 88 | 28.75 |
| 53703 | 131 | 28.35 | 25108 | 19 | 27.60 | 64810 | 165 | 27.28 |
| 52819 | 123 | 27.12 | 57311 | 181 | 27.02 | 27416 | 44 | 26.90 |
| 44204 | 101 | 26.74 | 26104 | 29 | 25.65 | 58306 | 147 | 25.57 |
| 33403 | 51 | 25.47 | 65704 | 170 | 25.45 | 43304 | 92 | 25.33 |
| 72616 | 177 | 25.09 | 56407 | 142 | 25.05 | uzhgo | 217 | 24.64 |
| 48502 | 114 | 24.32 | 25200 | 20 | 24.01 | 22502 | 12 | 23.84 |
| 62400 | 150 | 23.77 | 53101 | 180 | 23.67 | 37402 | 72 | 23.64 |
| 43808 | 99 | 22.77 | 23201 | 13 | 22.68 | sedla | 200 | 22.36 |
| 35500 | 60 | 22.20 | 16206 | 7 | 22.18 | 63605 | 160 | 21.93 |
| 26505 | 36 | 21.89 | 43116 | 86 | 21.77 | 26502 | 35 | 21.76 |
| 34501 | 56 | 21.51 | 37100 | 69 | 21.32 | 13704 | 1 | 21.29 |
| 48403 | 112 | 21.19 | 11927 | 220 | 20.97 | 35504 | 61 | 20.86 |
| satu | 214 | 20.46 | 14421 | 2 | 20.32 | 35106 | 58 | 20.21 |
| 44812 | 104 | 19.66 | 46303 | 106 | 19.66 | 43427 | 94 | 19.58 |
| 11978 | 223 | 19.57 | 35505 | 62 | 19.49 | 48105 | 111 | 19.44 |
| 58600 | 148 | 19.43 | 51705 | 179 | 19.38 | 62501 | 151 | 19.25 |
| 55180 | 233 | 19.20 | orade | 211 | 19.17 | 46600 | 108 | 19.14 |
| 43518 | 96 | 19.11 | 29201 | 50 | 19.05 | djurđ | 192 | 18.75 |
| 24506 | 17 | 18.73 | 53307 | 127 | 18.55 | 34302 | 55 | 18.49 |
| 11813 | 218 | 18.40 | 37604 | 74 | 18.26 | 25304 | 22 | 18.04 |
| backi | 201 | 18.02 | 52742 | 122 | 18.00 | 34710 | 57 | 17.81 |
| 27225 | 43 | 17.48 | 56704 | 143 | 17.34 | 53801 | 132 | 17.01 |
| 72509 | 176 | 16.97 | 53120 | 124 | 16.67 | bjelo | 190 | 16.46 |
| 56805 | 144 | 16.40 | donji | 193 | 16.39 | 62809 | 156 | 16.27 |
| 46508 | 107 | 16.26 | 52401 | 118 | 15.98 | osije | 188 | 15.84 |
| 54508 | 134 | 15.83 | 52506 | 119 | 15.64 | 37302 | 71 | 15.48 |
| 23703 | 178 | 15.42 | 28103 | 47 | 15.41 | ferdi | 196 | 15.31 |
| 16302 | 8 | 15.27 | 66209 | 171 | 15.17 | 65503 | 167 | 15.14 |
| 42800 | 84 | 15.09 | 63411 | 158 | 15.07 | 26207 | 31 | 15.07 |
| 53602 | 129 | 15.05 | 26601 | 37 | 14.98 | 27500 | 45 | 14.98 |
| 38525 | 77 | 14.91 | 64610 | 163 | 14.58 | 27607 | 46 | 14.53 |

| | | | | | | | | |
|----------|-----|-------|-------|-----|-------|-------|-----|-------|
| 26403 | 33 | 14.50 | 61709 | 183 | 14.50 | 42707 | 83 | 14.40 |
| 43210 | 90 | 14.38 | 52140 | 229 | 14.20 | 63508 | 159 | 14.09 |
| 36500 | 64 | 14.07 | 39600 | 79 | 13.96 | khust | 216 | 13.93 |
| 36613 | 67 | 13.88 | 48408 | 113 | 13.87 | 26202 | 30 | 13.84 |
| 37320 | 227 | 13.83 | 26100 | 28 | 13.61 | 72119 | 174 | 13.42 |
| 25208 | 21 | 13.35 | 43507 | 95 | 13.27 | 27209 | 42 | 13.24 |
| 62505 | 152 | 13.21 | 37260 | 226 | 13.10 | 55080 | 232 | 13.07 |
| 33412 | 52 | 12.95 | 26326 | 32 | 12.94 | 43603 | 97 | 12.85 |
| 43406 | 93 | 12.69 | sombo | 204 | 12.68 | 36708 | 68 | 12.65 |
| 17300 | 10 | 12.51 | cacin | 195 | 12.47 | 11946 | 221 | 12.39 |
| sacui | 212 | 12.39 | 51307 | 116 | 12.34 | bereg | 215 | 12.24 |
| 62804 | 155 | 12.12 | 47106 | 109 | 12.07 | bajmo | 205 | 12.00 |
| 44121 | 100 | 11.99 | 34210 | 54 | 11.98 | 11968 | 222 | 11.61 |
| 15310 | 3 | 11.56 | 44615 | 103 | 11.48 | 53604 | 130 | 11.47 |
| arad | 210 | 11.37 | 66611 | 172 | 11.22 | 52714 | 121 | 11.16 |
| 54380 | 231 | 11.15 | 48101 | 110 | 11.06 | valpo | 189 | 10.98 |
| 43128 | 87 | 10.67 | 45405 | 105 | 10.51 | 39113 | 78 | 10.36 |
| 24111 | 14 | 10.28 | 54702 | 136 | 10.08 | 51060 | 228 | 10.07 |
| bezda | 206 | 9.96 | 63400 | 157 | 9.78 | slavo | 194 | 9.70 |
| 42504 | 82 | 9.65 | nijem | 187 | 9.26 | 28308 | 48 | 9.09 |
| 36612 | 66 | 9.00 | 55502 | 138 | 8.95 | 43806 | 98 | 8.87 |
| 52205 | 117 | 8.79 | kikin | 202 | 8.77 | 24803 | 18 | 8.36 |
| sanni | 213 | 8.26 | 68101 | 173 | 8.17 | 66519 | 184 | 8.16 |
| 38307 | 75 | 7.98 | daruv | 191 | 7.63 | 17705 | 11 | 7.53 |
| 65107 | 166 | 7.30 | 25502 | 24 | 6.97 | 43207 | 89 | 6.86 |
| 28501 | 49 | 6.65 | 55706 | 139 | 6.58 | 38511 | 76 | 6.49 |
| 35314 | 59 | 6.35 | 16100 | 5 | 5.40 | | | |
| AVERAGE: | | 22.60 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 26826 | 41 | 200.79 | 54306 | 133 | 181.47 | 25716 | 27 | 117.51 |
| 26502 | 35 | 116.00 | sandr | 199 | 106.50 | 25314 | 23 | 102.39 |
| 16804 | 9 | 100.10 | 52742 | 122 | 80.60 | 36506 | 65 | 80.00 |
| 43116 | 86 | 72.32 | vajsk | 209 | 71.72 | 17540 | 224 | 66.68 |
| 53215 | 125 | 66.05 | 26704 | 39 | 63.12 | 44503 | 102 | 62.28 |
| 33508 | 53 | 60.58 | 26602 | 38 | 59.31 | 37522 | 73 | 58.94 |
| 26800 | 40 | 57.85 | 54200 | 230 | 57.19 | 16206 | 7 | 54.78 |
| 43226 | 91 | 52.92 | 25714 | 26 | 51.60 | 25711 | 25 | 50.94 |
| mokri | 208 | 50.83 | marij | 198 | 49.88 | 64704 | 164 | 49.69 |
| 24419 | 15 | 49.55 | 51303 | 115 | 49.13 | 58100 | 146 | 48.45 |
| 62613 | 153 | 48.14 | 42808 | 85 | 47.95 | 43200 | 88 | 47.39 |
| 16204 | 6 | 47.37 | 65602 | 168 | 47.25 | 26501 | 34 | 47.06 |
| 37402 | 72 | 46.08 | 63700 | 162 | 46.02 | 52510 | 120 | 45.41 |
| 56114 | 140 | 44.99 | 62303 | 149 | 43.83 | 11858 | 219 | 43.08 |
| 37040 | 225 | 42.83 | 27225 | 43 | 42.38 | 36100 | 63 | 42.10 |
| 15604 | 4 | 42.07 | 42303 | 80 | 40.70 | 72203 | 175 | 39.56 |
| 57108 | 145 | 39.25 | 24421 | 16 | 38.67 | 53513 | 128 | 37.86 |
| 42304 | 81 | 37.11 | 27500 | 45 | 35.71 | 54604 | 135 | 35.43 |
| 25304 | 22 | 35.09 | horgo | 207 | 34.95 | 43304 | 92 | 33.80 |
| 52819 | 123 | 32.57 | 58113 | 182 | 32.53 | sedla | 200 | 32.50 |
| 26505 | 36 | 32.41 | 65604 | 169 | 32.38 | 53300 | 126 | 32.26 |
| 27416 | 44 | 31.81 | 44204 | 101 | 31.48 | gola | 197 | 31.28 |
| 37202 | 70 | 31.28 | 53307 | 127 | 30.62 | 43210 | 90 | 29.12 |
| palic | 203 | 28.79 | ajmas | 186 | 28.20 | 55180 | 233 | 28.04 |
| 62800 | 154 | 27.87 | 63605 | 160 | 27.55 | 27209 | 42 | 26.90 |
| 58306 | 147 | 26.86 | 73302 | 185 | 26.80 | 33403 | 51 | 26.58 |
| 53703 | 131 | 26.46 | 57311 | 181 | 26.38 | 24506 | 17 | 26.38 |
| 56805 | 144 | 26.32 | 25200 | 20 | 26.05 | 64810 | 165 | 25.95 |
| 43518 | 96 | 25.91 | 35500 | 60 | 25.82 | 26207 | 31 | 25.81 |
| 35106 | 58 | 25.80 | osije | 188 | 25.66 | 53602 | 129 | 25.63 |
| 25108 | 19 | 25.12 | 72616 | 177 | 25.10 | 22502 | 12 | 24.80 |
| 56205 | 141 | 24.73 | 26601 | 37 | 24.37 | 48403 | 112 | 24.11 |

| | | | | | | | | |
|--------|-----|-------|-------|-----|-------|-------|-----|-------|
| 56704 | 143 | 24.03 | 43808 | 99 | 24.01 | 63608 | 161 | 23.73 |
| 13704 | 1 | 23.20 | 48502 | 114 | 22.62 | satu | 214 | 22.48 |
| 53101 | 180 | 22.34 | 26100 | 28 | 22.22 | 52140 | 229 | 21.99 |
| 65704 | 170 | 21.81 | 48105 | 111 | 21.64 | 46600 | 108 | 21.42 |
| 62501 | 151 | 21.28 | 11927 | 220 | 21.26 | 62400 | 150 | 21.20 |
| 44812 | 104 | 21.12 | 62809 | 156 | 20.71 | 26104 | 29 | 20.51 |
| 53604 | 130 | 20.12 | 16302 | 8 | 19.92 | 37604 | 74 | 19.58 |
| bjelo | 190 | 19.20 | 14421 | 2 | 19.15 | 47106 | 109 | 19.04 |
| 43128 | 87 | 18.94 | 27607 | 46 | 18.86 | 29201 | 50 | 18.74 |
| 51705 | 179 | 18.73 | 34302 | 55 | 18.69 | valpo | 189 | 18.69 |
| 11978 | 223 | 18.55 | 37320 | 227 | 18.24 | backi | 201 | 17.88 |
| ni jem | 187 | 17.76 | cacin | 195 | 17.66 | 53120 | 124 | 17.56 |
| ferdi | 196 | 17.51 | 43427 | 94 | 17.23 | 33412 | 52 | 17.22 |
| 35504 | 61 | 16.84 | 35505 | 62 | 16.74 | uzhgo | 217 | 16.66 |
| 26403 | 33 | 16.49 | 37302 | 71 | 16.49 | 54508 | 134 | 16.44 |
| 46303 | 106 | 16.36 | 63411 | 158 | 16.18 | 25208 | 21 | 16.05 |
| 56407 | 142 | 15.99 | 52401 | 118 | 15.88 | 23201 | 13 | 15.83 |
| 52714 | 121 | 15.72 | 64610 | 163 | 15.54 | 54380 | 231 | 15.51 |
| donji | 193 | 15.48 | 36613 | 67 | 15.46 | 34501 | 56 | 15.45 |
| 36500 | 64 | 15.39 | 65503 | 167 | 15.36 | 44121 | 100 | 15.06 |
| 34710 | 57 | 15.04 | 37100 | 69 | 14.86 | 11946 | 221 | 14.75 |
| 53801 | 132 | 14.65 | 51307 | 116 | 14.65 | 55080 | 232 | 14.64 |
| 38525 | 77 | 14.59 | 39600 | 79 | 14.42 | 52506 | 119 | 14.36 |
| 72119 | 174 | 14.32 | khust | 216 | 14.27 | 63508 | 159 | 14.08 |
| 48101 | 110 | 13.99 | 24803 | 18 | 13.81 | 62804 | 155 | 13.78 |
| 11813 | 218 | 13.67 | 43406 | 93 | 13.65 | 62505 | 152 | 13.60 |
| 26202 | 30 | 13.56 | 23703 | 178 | 13.49 | orade | 211 | 13.41 |
| 36612 | 66 | 13.40 | 44615 | 103 | 13.30 | sacui | 212 | 13.27 |
| 17300 | 10 | 13.00 | 26326 | 32 | 12.92 | 72509 | 176 | 12.90 |
| 58600 | 148 | 12.80 | 36708 | 68 | 12.68 | 66611 | 172 | 12.63 |
| 42800 | 84 | 12.61 | 55300 | 137 | 12.37 | 42707 | 83 | 12.28 |
| 37260 | 226 | 12.22 | 24111 | 14 | 12.10 | 66209 | 171 | 12.06 |
| sombo | 204 | 11.96 | 17705 | 11 | 11.67 | bezda | 206 | 11.50 |
| 43507 | 95 | 11.49 | arad | 210 | 11.41 | kikin | 202 | 11.37 |
| 34210 | 54 | 11.33 | 28103 | 47 | 11.32 | 42504 | 82 | 11.10 |
| 48408 | 113 | 11.05 | 45405 | 105 | 10.97 | 25502 | 24 | 10.73 |
| bereg | 215 | 10.59 | sanni | 213 | 10.57 | djurd | 192 | 10.38 |
| 28308 | 48 | 10.38 | 39113 | 78 | 10.25 | 61709 | 183 | 10.24 |
| 63400 | 157 | 10.07 | 43603 | 97 | 9.76 | 66519 | 184 | 9.68 |
| 51060 | 228 | 9.62 | bajmo | 205 | 9.52 | 46508 | 107 | 9.39 |
| 43806 | 98 | 9.03 | 55502 | 138 | 9.00 | 52205 | 117 | 8.97 |
| 11968 | 222 | 8.85 | 54702 | 136 | 8.76 | 68101 | 173 | 8.56 |
| daruv | 191 | 8.41 | slavo | 194 | 8.36 | 15310 | 3 | 8.04 |
| 38511 | 76 | 7.86 | 43207 | 89 | 7.54 | 65107 | 166 | 7.02 |
| 28501 | 49 | 6.96 | 38307 | 75 | 6.68 | 35314 | 59 | 6.00 |
| 55706 | 139 | 5.95 | 16100 | 5 | 5.71 | | | |

AVERAGE: 27.93

Table 3.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| mokri | 208 | 0.24 | khust | 216 | 0.43 | 16100 | 5 | 0.47 |
| 11978 | 223 | 0.48 | 11968 | 222 | 0.50 | 52140 | 229 | 0.50 |
| bjelo | 190 | 0.51 | sacui | 212 | 0.52 | 15310 | 3 | 0.52 |
| 63700 | 162 | 0.52 | 11813 | 218 | 0.54 | 13704 | 1 | 0.54 |
| 55080 | 232 | 0.55 | 17300 | 10 | 0.55 | slavo | 194 | 0.55 |
| 73302 | 185 | 0.56 | 11946 | 221 | 0.56 | 39113 | 78 | 0.57 |
| satu | 214 | 0.57 | 42504 | 82 | 0.57 | sanni | 213 | 0.59 |
| bereg | 215 | 0.59 | 36708 | 68 | 0.60 | 44812 | 104 | 0.60 |
| 17705 | 11 | 0.60 | 51303 | 115 | 0.60 | 68101 | 173 | 0.60 |
| 63608 | 161 | 0.60 | 22502 | 12 | 0.60 | 42800 | 84 | 0.60 |
| bajmo | 205 | 0.61 | 54702 | 136 | 0.61 | 64704 | 164 | 0.61 |
| 53801 | 132 | 0.61 | 64810 | 165 | 0.61 | 24506 | 17 | 0.61 |
| 26403 | 33 | 0.62 | 15604 | 4 | 0.62 | 11927 | 220 | 0.62 |
| 54380 | 231 | 0.62 | 28501 | 49 | 0.62 | cacin | 195 | 0.63 |
| 23703 | 178 | 0.63 | 34210 | 54 | 0.63 | 37040 | 225 | 0.63 |
| uzhgo | 217 | 0.63 | ajmas | 186 | 0.63 | kikin | 202 | 0.63 |
| arad | 210 | 0.63 | 46303 | 106 | 0.64 | 29201 | 50 | 0.64 |
| 16204 | 6 | 0.64 | 72509 | 176 | 0.64 | 45405 | 105 | 0.64 |
| 48403 | 112 | 0.64 | 23201 | 13 | 0.64 | 53101 | 180 | 0.65 |
| 72203 | 175 | 0.65 | 26207 | 31 | 0.65 | 44615 | 103 | 0.65 |
| 65107 | 166 | 0.65 | 44121 | 100 | 0.65 | 51705 | 179 | 0.65 |
| 38307 | 75 | 0.65 | 17540 | 224 | 0.65 | 43406 | 93 | 0.66 |
| 52714 | 121 | 0.66 | 57108 | 145 | 0.66 | orade | 211 | 0.66 |
| 25714 | 26 | 0.66 | 42303 | 80 | 0.66 | 66611 | 172 | 0.66 |
| 24111 | 14 | 0.66 | 14421 | 2 | 0.67 | 16206 | 7 | 0.67 |
| 53120 | 124 | 0.67 | 62809 | 156 | 0.67 | 62804 | 155 | 0.67 |
| 44503 | 102 | 0.67 | 33412 | 52 | 0.67 | 43806 | 98 | 0.67 |
| bezda | 206 | 0.67 | 56407 | 142 | 0.67 | 64610 | 163 | 0.67 |
| 56205 | 141 | 0.67 | 25208 | 21 | 0.67 | 48105 | 111 | 0.67 |
| vajsk | 209 | 0.67 | 47106 | 109 | 0.67 | 72119 | 174 | 0.68 |
| 66519 | 184 | 0.68 | 36613 | 67 | 0.68 | 43304 | 92 | 0.68 |
| 72616 | 177 | 0.68 | 43507 | 95 | 0.68 | 53604 | 130 | 0.68 |
| 55502 | 138 | 0.68 | 37260 | 226 | 0.68 | 37522 | 73 | 0.68 |
| 55706 | 139 | 0.68 | 52819 | 123 | 0.68 | 39600 | 79 | 0.68 |
| 43808 | 99 | 0.69 | 34501 | 56 | 0.69 | 57311 | 181 | 0.69 |
| 55180 | 233 | 0.69 | 37320 | 227 | 0.69 | 36500 | 64 | 0.69 |
| 65604 | 169 | 0.69 | 25200 | 20 | 0.69 | 35504 | 61 | 0.69 |
| 52205 | 117 | 0.69 | 48502 | 114 | 0.69 | 56704 | 143 | 0.69 |
| 63400 | 157 | 0.69 | 61709 | 183 | 0.69 | sombo | 204 | 0.69 |
| valpo | 189 | 0.69 | 37302 | 71 | 0.69 | 53513 | 128 | 0.69 |
| 43207 | 89 | 0.69 | 51307 | 116 | 0.69 | 33403 | 51 | 0.69 |
| 38511 | 76 | 0.70 | 63508 | 159 | 0.70 | 24421 | 16 | 0.70 |
| 51060 | 228 | 0.70 | 55300 | 137 | 0.70 | 66209 | 171 | 0.70 |
| 53307 | 127 | 0.70 | 37402 | 72 | 0.70 | 63411 | 158 | 0.70 |
| sandr | 199 | 0.70 | 36100 | 63 | 0.70 | nijem | 187 | 0.70 |
| 58600 | 148 | 0.70 | 34302 | 55 | 0.70 | 26326 | 32 | 0.70 |
| backi | 201 | 0.70 | 33508 | 53 | 0.70 | 34710 | 57 | 0.71 |
| donji | 193 | 0.71 | 58306 | 147 | 0.71 | marij | 198 | 0.71 |
| 48101 | 110 | 0.71 | 54508 | 134 | 0.71 | 56805 | 144 | 0.71 |
| 25304 | 22 | 0.71 | daruv | 191 | 0.71 | 44204 | 101 | 0.71 |
| 53703 | 131 | 0.71 | 54200 | 230 | 0.71 | 43128 | 87 | 0.71 |
| osije | 188 | 0.72 | 65503 | 167 | 0.72 | 42808 | 85 | 0.72 |
| 52401 | 118 | 0.72 | 48408 | 113 | 0.72 | 16804 | 9 | 0.72 |
| horgo | 207 | 0.72 | 46600 | 108 | 0.72 | 37100 | 69 | 0.72 |
| 16302 | 8 | 0.72 | 54604 | 135 | 0.72 | 63605 | 160 | 0.73 |
| 26505 | 36 | 0.73 | 27500 | 45 | 0.73 | 65704 | 170 | 0.73 |
| 11858 | 219 | 0.73 | 43518 | 96 | 0.73 | 26601 | 37 | 0.73 |
| 35314 | 59 | 0.73 | 62613 | 153 | 0.73 | 25502 | 24 | 0.73 |

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|----------------------|-----|--------------------|------------------|-----|------------|-------|-----|------|
| 62505 | 152 | 0.73 | 35106 | 58 | 0.73 | 43603 | 97 | 0.73 |
| 27225 | 43 | 0.73 | 43210 | 90 | 0.73 | 53602 | 129 | 0.74 |
| 43427 | 94 | 0.74 | 58100 | 146 | 0.74 | 35500 | 60 | 0.74 |
| 52506 | 119 | 0.74 | 43116 | 86 | 0.74 | 26202 | 30 | 0.74 |
| 26704 | 39 | 0.74 | 28308 | 48 | 0.74 | 36506 | 65 | 0.74 |
| 53215 | 125 | 0.74 | ferdi | 196 | 0.75 | 65602 | 168 | 0.75 |
| 27416 | 44 | 0.75 | 42707 | 83 | 0.75 | 25108 | 19 | 0.75 |
| 25711 | 25 | 0.75 | 27209 | 42 | 0.75 | 26502 | 35 | 0.75 |
| 35505 | 62 | 0.75 | 26800 | 40 | 0.75 | 26826 | 41 | 0.75 |
| 42304 | 81 | 0.75 | 62501 | 151 | 0.75 | 26104 | 29 | 0.76 |
| 62400 | 150 | 0.76 | 56114 | 140 | 0.76 | 53300 | 126 | 0.76 |
| 58113 | 182 | 0.76 | 46508 | 107 | 0.76 | 28103 | 47 | 0.76 |
| 38525 | 77 | 0.76 | 43226 | 91 | 0.77 | 52742 | 122 | 0.77 |
| 26602 | 38 | 0.77 | 43200 | 88 | 0.77 | djurd | 192 | 0.77 |
| sedla | 200 | 0.77 | palic | 203 | 0.77 | 26100 | 28 | 0.77 |
| 26501 | 34 | 0.77 | 25716 | 27 | 0.77 | 62303 | 149 | 0.77 |
| 36612 | 66 | 0.78 | 37604 | 74 | 0.78 | 27607 | 46 | 0.78 |
| 54306 | 133 | 0.79 | 24419 | 15 | 0.79 | 62800 | 154 | 0.79 |
| 24803 | 18 | 0.79 | gola | 197 | 0.79 | 52510 | 120 | 0.80 |
| 37202 | 70 | 0.80 | 25314 | 23 | 0.81 | | | |
| AVERAGE: | | 0.68 | | | | | | |

Table 3.1c. Station parameters of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

| index | lambda(x) | fi(y) | h | stno | stna | |
|-------|-------------|-------------|-------|-------|------------------------|----|
| 1 | 16.60000000 | 47.68000000 | 234.0 | 13704 | Sopron Kuruc-domb | HU |
| 2 | 16.88000000 | 47.58000000 | 135.0 | 14421 | Fertőszentmiklós | HU |
| 3 | 16.65000000 | 47.20000000 | 201.0 | 15310 | Szombathely | HU |
| 4 | 16.48000000 | 47.03000000 | 206.0 | 15604 | Pinkamindszent | HU |
| 5 | 16.19000000 | 46.88000000 | 282.0 | 16100 | Felsőszőlőnk | HU |
| 6 | 16.31000000 | 46.91000000 | 312.0 | 16204 | Szentgotthárd Farkasfa | HU |
| 7 | 16.50000000 | 46.87000000 | 271.0 | 16206 | Kisrákos Viszák | HU |
| 8 | 16.70000000 | 46.92000000 | 206.0 | 16302 | Hagyárosbörönd | HU |
| 9 | 16.99000000 | 46.68000000 | 160.0 | 16804 | Felsőrajk | HU |
| 10 | 16.53000000 | 46.62000000 | 166.0 | 17300 | Lenti | HU |
| 11 | 16.72000000 | 46.43000000 | 151.0 | 17705 | Letenye | HU |
| 12 | 17.20000000 | 48.00000000 | 131.0 | 22502 | Rajka | HU |
| 13 | 17.26720000 | 47.88970000 | 121.0 | 23201 | Mosonmagyaróvár | HU |
| 14 | 17.25000000 | 47.62000000 | 118.0 | 24111 | Csorna | HU |
| 15 | 17.77000000 | 47.52000000 | 162.0 | 24419 | Ravazd | HU |
| 16 | 17.80000000 | 47.61670000 | 133.0 | 24421 | Pér | HU |
| 17 | 17.11670000 | 47.46670000 | 134.0 | 24506 | Beled | HU |
| 18 | 17.87860000 | 47.36420000 | 281.0 | 24803 | Bakonyszentkirály | HU |
| 19 | 17.16420000 | 47.29310000 | 133.0 | 25108 | Kemenesszentmárton | HU |
| 20 | 17.26670000 | 47.16670000 | 141.0 | 25200 | Kerta | HU |
| 21 | 17.45000000 | 47.25000000 | 213.0 | 25208 | Kup | HU |
| 22 | 17.73000000 | 47.25250000 | 268.0 | 25304 | Bakonybél | HU |
| 23 | 17.62000000 | 47.22000000 | 401.0 | 25314 | Farkasgyepű | HU |
| 24 | 17.16670000 | 47.03330000 | 156.0 | 25502 | Ötvös | HU |
| 25 | 17.74670000 | 47.13310000 | 342.0 | 25711 | Herend | HU |
| 26 | 17.63330000 | 47.08330000 | 401.0 | 25714 | Úrkút | HU |
| 27 | 17.65000000 | 47.15000000 | 295.0 | 25716 | Városlőd | HU |
| 28 | 17.10000000 | 46.85000000 | 126.0 | 26100 | Kehidakustány | HU |
| 29 | 17.10000000 | 46.98330000 | 153.0 | 26104 | Türje | HU |
| 30 | 17.28330000 | 46.98330000 | 178.0 | 26202 | Sümeg | HU |
| 31 | 17.45000000 | 46.88330000 | 126.0 | 26207 | Tapolca | HU |
| 32 | 17.70250000 | 46.98860000 | 269.0 | 26326 | Nagyvázsony | HU |
| 33 | 17.89000000 | 46.92000000 | 107.0 | 26403 | Tihany | HU |
| 34 | 17.10000000 | 46.80000000 | 125.0 | 26501 | Zalacsány | HU |
| 35 | 17.16360000 | 46.67080000 | 123.0 | 26502 | Zalavár | HU |
| 36 | 17.23860000 | 46.73560000 | 111.7 | 26505 | Keszthely Tanyakereszt | HU |
| 37 | 17.37190000 | 46.69810000 | 121.0 | 26601 | Balatonkeresztúr | HU |
| 38 | 17.38330000 | 46.68330000 | 111.0 | 26602 | Balatonújlak | HU |
| 39 | 17.65000000 | 46.66670000 | 149.0 | 26704 | Lengyeltóti | HU |
| 40 | 17.78330000 | 46.70000000 | 152.0 | 26800 | Somogytúr | HU |
| 41 | 17.95000000 | 46.78330000 | 201.0 | 26826 | Bálványos | HU |
| 42 | 17.43330000 | 46.50000000 | 141.0 | 27209 | Mesztegyő | HU |
| 43 | 17.41670000 | 46.58330000 | 130.0 | 27225 | Marcali | HU |
| 44 | 17.81670000 | 46.50000000 | 169.0 | 27416 | Mernye | HU |
| 45 | 17.10000000 | 46.35000000 | 196.0 | 27500 | Iharos | HU |

| | | | | | | |
|-----|-------------|-------------|-------|-------|----------------------|----|
| 46 | 17.50000000 | 46.40000000 | 165.0 | 27607 | Nagybajom | HU |
| 47 | 17.10000000 | 46.26670000 | 148.0 | 28103 | Csurgó | HU |
| 48 | 17.55000000 | 46.30000000 | 159.0 | 28308 | Csököly | HU |
| 49 | 17.23330000 | 46.08330000 | 126.0 | 28501 | Vízvár | HU |
| 50 | 17.45000000 | 45.95000000 | 108.0 | 29201 | Barcs | HU |
| 51 | 18.79000000 | 47.98000000 | 127.0 | 33403 | Vámosmikola | HU |
| 52 | 18.86670000 | 47.86670000 | 232.0 | 33412 | Márianosztra | HU |
| 53 | 18.16670000 | 47.73330000 | 113.0 | 33508 | Komárom Szöny | HU |
| 54 | 18.45000000 | 47.53330000 | 203.0 | 34210 | Tatabánya Felsőgalla | HU |
| 55 | 18.63330000 | 47.60000000 | 191.0 | 34302 | Gyermely | HU |
| 56 | 18.03330000 | 47.36670000 | 243.0 | 34501 | Súr | HU |
| 57 | 18.75000000 | 47.35000000 | 121.0 | 34710 | Tordas | HU |
| 58 | 18.13000000 | 47.20000000 | 162.0 | 35106 | Várpalota | HU |
| 59 | 18.68500000 | 47.24330000 | 115.0 | 35314 | Kápolnásnyék | HU |
| 60 | 18.02000000 | 47.03000000 | 111.0 | 35500 | Balatonalmádi | HU |
| 61 | 18.25000000 | 47.05000000 | 174.0 | 35504 | Füle | HU |
| 62 | 18.25000000 | 47.00000000 | 120.0 | 35505 | Lepsény | HU |
| 63 | 18.04080000 | 46.91080000 | 108.2 | 36100 | Siófok | HU |
| 64 | 18.18360000 | 46.68560000 | 165.0 | 36500 | Iregszemcse | HU |
| 65 | 18.01670000 | 46.73330000 | 178.0 | 36506 | Tab | HU |
| 66 | 18.29280000 | 46.83060000 | 123.0 | 36612 | Lajoskomárom | HU |
| 67 | 18.43330000 | 46.68330000 | 115.0 | 36613 | Pincehely | HU |
| 68 | 18.66670000 | 46.68330000 | 109.0 | 36708 | Bikács | HU |
| 69 | 18.11670000 | 46.55000000 | 193.0 | 37100 | Szakcs | HU |
| 70 | 18.38330000 | 46.53330000 | 117.0 | 37202 | Szakály | HU |
| 71 | 18.71080000 | 46.53030000 | 121.0 | 37302 | Tengelic | HU |
| 72 | 18.84560000 | 46.57360000 | 97.2 | 37402 | Paks | HU |
| 73 | 18.01720000 | 46.42860000 | 148.0 | 37522 | Gölle | HU |
| 74 | 18.31670000 | 46.45000000 | 124.0 | 37604 | Kurd | HU |
| 75 | 18.63330000 | 46.28330000 | 169.0 | 38307 | Szálka | HU |
| 76 | 18.11670000 | 46.14250000 | 220.0 | 38511 | Abaliget | HU |
| 77 | 18.08330000 | 46.08330000 | 237.0 | 38525 | Bakonya | HU |
| 78 | 18.23500000 | 45.99500000 | 200.2 | 39113 | Pécs Pogány | HU |
| 79 | 18.31670000 | 45.78330000 | 93.0 | 39600 | Alsószentmárton | HU |
| 80 | 19.53330000 | 48.18330000 | 204.0 | 42303 | Nógrádszakál | HU |
| 81 | 19.70000000 | 48.16670000 | 199.0 | 42304 | Karancskeszi | HU |
| 82 | 19.05000000 | 48.05000000 | 155.0 | 42504 | Drégelypalánk | HU |
| 83 | 19.75000000 | 48.13330000 | 243.0 | 42707 | Karancsalja | HU |
| 84 | 19.86670000 | 48.13330000 | 451.0 | 42800 | Salgótarján Rónafalu | HU |
| 85 | 19.78000000 | 48.10000000 | 281.0 | 42808 | Salgótarján | HU |
| 86 | 19.11670000 | 47.93330000 | 197.0 | 43116 | Tolmács | HU |
| 87 | 19.05000000 | 47.90000000 | 237.0 | 43128 | Nógrád | HU |
| 88 | 19.28000000 | 47.83000000 | 231.0 | 43200 | Nézsza Szentivány | HU |
| 89 | 19.35000000 | 47.98330000 | 193.0 | 43207 | Mohora | HU |
| 90 | 19.38330000 | 47.90000000 | 231.0 | 43210 | Becske | HU |
| 91 | 19.35000000 | 47.85000000 | 181.0 | 43226 | Galgaguta | HU |
| 92 | 19.69330000 | 47.91440000 | 181.0 | 43304 | Pásztó | HU |
| 93 | 19.78330000 | 47.98330000 | 186.0 | 43406 | Mátraverebély | HU |
| 94 | 19.98330000 | 47.91670000 | 357.0 | 43427 | Parádsasvár | HU |
| 95 | 19.07000000 | 47.67000000 | 120.0 | 43507 | Szentendre | HU |
| 96 | 19.25000000 | 47.73000000 | 140.0 | 43518 | Váchartyán | HU |
| 97 | 19.38330000 | 47.75000000 | 176.0 | 43603 | Galgagyörk | HU |
| 98 | 19.78330000 | 47.73330000 | 158.0 | 43806 | Ecséd | HU |
| 99 | 19.78330000 | 47.81670000 | 203.0 | 43808 | Gyöngyöspata | HU |
| 100 | 19.02810000 | 47.51110000 | 230.0 | 44121 | Budapest belterület | HU |
| 101 | 19.48330000 | 47.56670000 | 170.0 | 44204 | Valkó | HU |
| 102 | 19.08000000 | 47.35000000 | 106.0 | 44503 | Dunaharaszti | HU |
| 103 | 19.28330000 | 47.40000000 | 121.0 | 44615 | Vecsés | HU |
| 104 | 19.87940000 | 47.34190000 | 106.0 | 44812 | Tápiószele | HU |
| 105 | 20.00000000 | 47.18330000 | 96.0 | 45405 | Abony | HU |
| 106 | 19.74830000 | 46.91310000 | 114.0 | 46303 | Kecskemét külterület | HU |
| 107 | 19.23000000 | 46.82000000 | 99.0 | 46508 | Fülöpszállás | HU |
| 108 | 19.36670000 | 46.80000000 | 107.0 | 46600 | Izsák | HU |
| 109 | 19.09890000 | 46.51030000 | 93.6 | 47106 | Kalocsa Öregcsertő | HU |
| 110 | 19.01670000 | 46.18330000 | 113.0 | 48101 | Baja Csávoly | HU |
| 111 | 19.18330000 | 46.20000000 | 133.0 | 48105 | Felsőszentiván | HU |
| 112 | 19.76670000 | 46.31670000 | 111.0 | 48403 | Ruzsa | HU |
| 113 | 19.78000000 | 46.20000000 | 116.0 | 48408 | Ásotthalom | HU |
| 114 | 19.15000000 | 46.11670000 | 119.0 | 48502 | Bácsbokod | HU |
| 115 | 20.66670000 | 48.50000000 | 156.0 | 51303 | Szin | HU |
| 116 | 20.73000000 | 48.54000000 | 183.0 | 51307 | Bódvaszilás | HU |
| 117 | 20.46670000 | 48.18330000 | 215.0 | 52205 | Dédestapolcsány | HU |
| 118 | 20.93330000 | 48.20000000 | 125.0 | 52401 | Szikszó | HU |
| 119 | 20.10000000 | 48.05000000 | 205.0 | 52506 | Erdőkövesd | HU |
| 120 | 20.16670000 | 48.06670000 | 196.0 | 52510 | Bükkszenterzsébet | HU |
| 121 | 20.61670000 | 48.15000000 | 211.0 | 52714 | Varbó | HU |
| 122 | 20.51670000 | 48.00000000 | 361.0 | 52742 | Bükkszérc | HU |
| 123 | 20.77140000 | 48.09690000 | 232.8 | 52819 | Miskolc Avas | HU |
| 124 | 20.11670000 | 47.93330000 | 173.0 | 53120 | Recsk | HU |
| 125 | 20.38890000 | 47.90390000 | 225.2 | 53215 | Eger | HU |
| 126 | 20.53330000 | 47.90000000 | 187.0 | 53300 | Bogács | HU |

| | | | | | | |
|-----|-------------|-------------|--------|-------|-----------------------|----|
| 127 | 20.61670000 | 47.96670000 | 201.0 | 53307 | Kács | HU |
| 128 | 20.16670000 | 47.81670000 | 140.0 | 53513 | Vécs | HU |
| 129 | 20.31500000 | 47.68580000 | 113.0 | 53602 | Erdőtelek | HU |
| 130 | 20.41670000 | 47.75000000 | 114.0 | 53604 | Füzesabony | HU |
| 131 | 20.55000000 | 47.80110000 | 117.0 | 53703 | Mezőkövesd | HU |
| 132 | 20.86670000 | 47.68330000 | 95.0 | 53801 | Tiszadorogma | HU |
| 133 | 20.64780000 | 47.64470000 | 90.2 | 54306 | Poroszló | HU |
| 134 | 20.16670000 | 47.36670000 | 91.0 | 54508 | Jászládány | HU |
| 135 | 20.44560000 | 47.39810000 | 86.8 | 54604 | Tiszaroff | HU |
| 136 | 20.63330000 | 47.36670000 | 93.0 | 54702 | Kunhegyes | HU |
| 137 | 20.53000000 | 47.27000000 | 91.0 | 55300 | Fegyvernek | HU |
| 138 | 20.20000000 | 47.13000000 | 90.0 | 55502 | Szolnok Szandaszőlős | HU |
| 139 | 20.74000000 | 47.10640000 | 85.9 | 55706 | Túrkeve | HU |
| 140 | 20.20000000 | 46.96670000 | 93.0 | 56114 | Cibakháza | HU |
| 141 | 20.29000000 | 46.84000000 | 89.0 | 56205 | Kunszentmárton | HU |
| 142 | 20.93330000 | 46.86670000 | 86.0 | 56407 | Csárdaszállás | HU |
| 143 | 20.58330000 | 46.66670000 | 91.0 | 56704 | Gádoros | HU |
| 144 | 20.77500000 | 46.76670000 | 89.0 | 56805 | Kondoros | HU |
| 145 | 20.18330000 | 46.51670000 | 87.0 | 57108 | Mindszent | HU |
| 146 | 20.01670000 | 46.30000000 | 90.0 | 58100 | Szeged Kiskundorozsma | HU |
| 147 | 20.71670000 | 46.25000000 | 96.0 | 58306 | Csanádpalota | HU |
| 148 | 20.28330000 | 46.15000000 | 83.0 | 58600 | Kübekháza | HU |
| 149 | 21.55000000 | 48.20000000 | 105.0 | 62303 | Kenézlő | HU |
| 150 | 21.80000000 | 48.31670000 | 107.0 | 62400 | Karcsa | HU |
| 151 | 21.13330000 | 48.08330000 | 99.0 | 62501 | Taktaharkány | HU |
| 152 | 21.16670000 | 48.01670000 | 108.0 | 62505 | Tiszadob | HU |
| 153 | 21.38330000 | 48.01670000 | 101.0 | 62613 | Tiszalök | HU |
| 154 | 21.80000000 | 48.06670000 | 105.0 | 62800 | Kemecse | HU |
| 155 | 21.95000000 | 48.15000000 | 100.0 | 62804 | Gégény | HU |
| 156 | 21.88000000 | 48.10000000 | 102.0 | 62809 | Kék | HU |
| 157 | 21.83000000 | 47.87000000 | 131.0 | 63400 | Nagykálló | HU |
| 158 | 21.88690000 | 47.96220000 | 142.1 | 63411 | Nyíregyháza Napkor | HU |
| 159 | 21.23000000 | 47.82000000 | 92.0 | 63508 | Görbeháza | HU |
| 160 | 21.50000000 | 47.80000000 | 112.0 | 63605 | Hajdúdorog | HU |
| 161 | 21.50000000 | 47.68000000 | 125.0 | 63608 | Hajdúböszörmény | HU |
| 162 | 21.67830000 | 47.71280000 | 145.0 | 63700 | Téglás | HU |
| 163 | 21.38330000 | 47.45000000 | 97.0 | 64610 | Hajdúszoboszló | HU |
| 164 | 21.61080000 | 47.49030000 | 107.6 | 64704 | Debrecen | HU |
| 165 | 21.88330000 | 47.38330000 | 118.0 | 64810 | Létavértes | HU |
| 166 | 21.23330000 | 47.20000000 | 94.0 | 65107 | Biharnagybajom | HU |
| 167 | 21.18000000 | 47.02000000 | 92.0 | 65503 | Szeghalom | HU |
| 168 | 21.43330000 | 47.13330000 | 98.0 | 65602 | Zsáka | HU |
| 169 | 21.50000000 | 47.01670000 | 93.0 | 65604 | Komádi | HU |
| 170 | 21.60000000 | 47.03330000 | 99.0 | 65704 | Kőrösszakál | HU |
| 171 | 21.26670000 | 46.93330000 | 91.0 | 66209 | Vésztő | HU |
| 172 | 21.45330000 | 46.77420000 | 94.0 | 66611 | Méhkerék | HU |
| 173 | 21.01670000 | 46.28330000 | 105.0 | 68101 | Battonya | HU |
| 174 | 22.18330000 | 48.31670000 | 114.0 | 72119 | Mándok | HU |
| 175 | 22.46670000 | 48.16670000 | 113.0 | 72203 | Csaroda | HU |
| 176 | 22.19330000 | 48.06500000 | 131.0 | 72509 | Nyírmada | HU |
| 177 | 22.32000000 | 48.13000000 | 115.0 | 72616 | Vásárosnamény | HU |
| 178 | 17.67472222 | 47.71000000 | 116.7 | 23703 | Győr Lüköcs | HU |
| 179 | 20.53611111 | 48.49527777 | 308.9 | 51705 | Jósvafő | HU |
| 180 | 20.01666666 | 47.86666666 | 1011.3 | 53101 | Kékestető | HU |
| 181 | 20.68750000 | 46.54416666 | 88.8 | 57311 | Orosháza | HU |
| 182 | 20.09027777 | 46.25611111 | 81.8 | 58113 | Szeged külterület | HU |
| 183 | 21.65888888 | 48.38083333 | 100.4 | 61709 | Sátoraljaújhely | HU |
| 184 | 21.16055555 | 46.67944444 | 87.8 | 66519 | Békéscsaba | HU |
| 185 | 22.62555555 | 47.86222222 | 118.3 | 73302 | Pátyod magántelek | HU |
| 186 | 18.98300000 | 45.53300000 | 150.0 | aljma | Aljmas Planina | CR |
| 187 | 19.03000000 | 45.13300000 | 90.0 | nijem | Nijemci | CR |
| 188 | 18.63300000 | 45.53300000 | 89.0 | osije | Osijek | CR |
| 189 | 18.35000000 | 45.66700000 | 92.0 | valpo | Valpovo | CR |
| 190 | 16.85000000 | 45.91700000 | 141.0 | bjelo | Bjelovar | CR |
| 191 | 17.23300000 | 45.60000000 | 161.0 | daruv | Daruvar | CR |
| 192 | 17.06700000 | 46.05000000 | 121.0 | djurd | Djurđjevac | CR |
| 193 | 18.16700000 | 45.76700000 | 97.0 | donji | Donji Miholjac | CR |
| 194 | 18.00000000 | 45.16600000 | 88.0 | slavo | Slavonski Brod | CR |
| 195 | 17.86700000 | 45.60000000 | 120.0 | cacin | Čačinci | CR |
| 196 | 17.20000000 | 46.06700000 | 113.0 | ferdi | Ferdinandovac | CR |
| 197 | 17.05000000 | 46.20000000 | 121.0 | gola | Gola | CR |
| 198 | 18.30000000 | 45.66700000 | 97.0 | marij | Marijanci | CR |
| 199 | 17.03300000 | 45.90000000 | 144.0 | sandr | Šandrovac | CR |
| 200 | 17.20000000 | 45.90000000 | 187.0 | sedla | Sedlarica | CR |
| 201 | 19.67050000 | 45.33660000 | 85.0 | backi | Backi Petrovac | RS |
| 202 | 20.46460000 | 45.84260000 | 80.0 | kikin | Kikinda | RS |
| 203 | 19.76410000 | 46.09720000 | 102.0 | palic | Palic | RS |
| 204 | 19.14310000 | 45.76700000 | 87.0 | sombo | Sombor | RS |
| 205 | 19.43000000 | 45.97000000 | 115.0 | bajmo | Bajmok | RS |
| 206 | 18.92800000 | 45.84990000 | 90.0 | bezda | Bezdan | RS |
| 207 | 19.97780000 | 46.16660000 | 95.0 | horgo | Horgoš | RS |

| | | | | | | |
|-----|-------------|-------------|-------|-------|--------------------|----|
| 208 | 20.41120000 | 45.89990000 | 85.0 | mokri | Mokrin | RS |
| 209 | 19.11140000 | 45.43320000 | 85.0 | vajsk | Vajska | RS |
| 210 | 21.35362152 | 46.13351640 | 112.0 | arad | Arad | RO |
| 211 | 21.89592406 | 47.03570901 | 132.0 | orade | Oradea | RO |
| 212 | 22.09450716 | 47.34415862 | 104.0 | sacui | Sacuieni | RO |
| 213 | 20.60156003 | 46.07128625 | 80.0 | sanni | Sannicolau | RO |
| 214 | 22.88714903 | 47.72148469 | 119.0 | satu | Satu Mare | RO |
| 215 | 22.60000000 | 48.20000000 | 113.0 | bereg | Bereg | UA |
| 216 | 23.30000000 | 48.20000000 | 164.0 | khust | Khust | UA |
| 217 | 22.30000000 | 48.60000000 | 115.0 | uzhgo | Uzhgorod | UA |
| 218 | 17.11060000 | 48.16860000 | 287.0 | 11813 | Bratislava-Koliba | SK |
| 219 | 18.19420000 | 47.87310000 | 115.0 | 11858 | Hurbanovo | SK |
| 220 | 19.73600000 | 48.33900000 | 214.0 | 11927 | Lučenec-boľkovce | SK |
| 221 | 20.79750000 | 48.71810000 | 580.0 | 11946 | štós | SK |
| 222 | 21.22250000 | 48.67220000 | 230.0 | 11968 | Košice-letisko | SK |
| 223 | 21.72400000 | 48.66300000 | 105.0 | 11978 | Milhostov | SK |
| 224 | 17.61300000 | 47.98800000 | 115.0 | 17540 | Veľké blahovo | SK |
| 225 | 18.63500000 | 48.12600000 | 148.0 | 37040 | Jur nad hronom | SK |
| 226 | 18.51300000 | 48.00700000 | 150.0 | 37260 | Farná | SK |
| 227 | 18.39700000 | 47.93100000 | 132.0 | 37320 | Rúbaň | SK |
| 228 | 21.81100000 | 48.39600000 | 100.0 | 51060 | Somotor | SK |
| 229 | 20.53000000 | 48.64900000 | 289.0 | 52140 | Rožňava | SK |
| 230 | 20.01100000 | 48.37400000 | 215.0 | 54200 | Rimavská sobota | SK |
| 231 | 20.28400000 | 48.30900000 | 164.0 | 54380 | Číž | SK |
| 232 | 21.00600000 | 48.61800000 | 218.0 | 55080 | Moldava nad bodvou | SK |
| 233 | 20.52700000 | 48.55500000 | 514.0 | 55180 | Silica | SK |

Table 3.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.01): 31.00

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| MOS | 49 | 107.46 | BGR | 28 | 105.18 | BBA | 92 | 94.18 |
| VRD | 100 | 87.93 | GAK | 22 | 81.32 | TEM | 48 | 78.15 |
| GDO | 98 | 74.95 | NGB | 95 | 65.68 | SEM | 13 | 65.63 |
| DAR | 75 | 60.74 | PRH | 89 | 60.69 | KAO | 99 | 60.30 |
| SAJ | 34 | 59.20 | ALE | 111 | 57.21 | SUR | 61 | 56.96 |
| SUB | 17 | 54.55 | NBC | 33 | 53.42 | SOK | 112 | 53.06 |
| GOC | 102 | 51.76 | MIR | 84 | 48.64 | ZLA | 94 | 48.01 |
| BAT | 62 | 47.92 | MEL | 35 | 47.12 | TRS | 104 | 46.87 |
| PER | 51 | 44.44 | REK | 106 | 42.28 | JAG | 107 | 40.47 |
| MOK | 36 | 40.07 | VAJ | 43 | 39.53 | RUD | 76 | 39.45 |
| NEU | 55 | 39.19 | RGL | 82 | 38.55 | KRU | 71 | 37.86 |
| BEZ | 21 | 36.35 | BAS | 37 | 36.27 | SEN | 31 | 35.59 |
| BEC | 29 | 35.47 | BTS | 66 | 34.79 | BPL | 45 | 34.62 |
| MIH | 86 | 34.01 | POC | 73 | 33.83 | MKR | 65 | 32.31 |
| ZAO | 90 | 32.17 | SMG | 93 | 31.94 | ARA | 50 | 29.98 |
| BAN | 11 | 29.04 | HOR | 19 | 28.80 | SCR | 42 | 28.41 |
| ZRE | 52 | 28.28 | TMS | 53 | 28.27 | PDN | 56 | 27.15 |
| KBH | 6 | 26.44 | BCL | 15 | 25.81 | CUP | 109 | 25.11 |
| RLJ | 105 | 25.10 | JAB | 85 | 24.99 | ADA | 32 | 24.90 |
| BPS | 30 | 24.65 | TOR | 27 | 24.45 | CUM | 77 | 24.05 |
| DOB | 69 | 23.41 | BJE | 96 | 23.36 | CAL | 16 | 22.89 |
| ZAG | 80 | 22.57 | PAL | 18 | 22.41 | KRV | 101 | 22.29 |
| SOM | 23 | 22.23 | UZD | 54 | 21.80 | OSI | 1 | 21.27 |
| BKA | 57 | 21.22 | BAC | 44 | 21.18 | TOB | 40 | 20.92 |
| BAJ | 5 | 20.86 | ZAV | 72 | 20.58 | ALP | 3 | 19.57 |
| KRS | 108 | 19.32 | BTO | 25 | 18.81 | DTS | 14 | 18.78 |
| VBA | 103 | 18.69 | BCR | 67 | 18.65 | SRM | 60 | 18.59 |
| SIP | 87 | 18.42 | BCS | 4 | 18.05 | VGR | 68 | 17.77 |
| ORA | 12 | 17.74 | SPL | 79 | 17.27 | GUN | 26 | 16.67 |
| DJU | 110 | 16.18 | RAD | 64 | 14.49 | KIK | 38 | 14.03 |
| BMO | 20 | 13.64 | BMK | 24 | 13.22 | CRN | 83 | 12.58 |
| NSA | 47 | 12.57 | BPT | 46 | 12.33 | VAL | 2 | 12.29 |
| NEG | 88 | 11.93 | VRS | 58 | 11.75 | TRD | 39 | 11.06 |
| BGD | 63 | 10.64 | ZLT | 81 | 10.53 | LOZ | 59 | 10.39 |
| LJU | 70 | 10.24 | PBG | 91 | 10.16 | SZE | 8 | 9.69 |
| VLJ | 74 | 9.09 | RZS | 7 | 8.93 | KRG | 78 | 8.43 |
| POZ | 97 | 7.98 | SNM | 9 | 7.50 | ZAJ | 114 | 7.20 |
| KNJ | 113 | 5.81 | RUS | 41 | 5.50 | TIM | 10 | 5.15 |
| AVERAGE: | | 31.23 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| ZLA | 94 | 151.16 | VRD | 100 | 121.68 | MOS | 49 | 105.71 |
| NBC | 33 | 104.40 | GDO | 98 | 95.70 | BGR | 28 | 94.92 |
| GAK | 22 | 94.72 | BBA | 92 | 91.58 | PRH | 89 | 86.51 |
| SEM | 13 | 79.12 | MOK | 36 | 74.14 | REK | 106 | 73.85 |
| BJE | 96 | 68.86 | KAO | 99 | 67.68 | SUR | 61 | 67.59 |
| SUB | 17 | 65.97 | NGB | 95 | 64.89 | MEL | 35 | 62.60 |
| ALE | 111 | 57.40 | GOC | 102 | 56.30 | SOK | 112 | 55.57 |
| TRS | 104 | 54.78 | DAR | 75 | 52.77 | RGL | 82 | 49.53 |
| ARA | 50 | 49.10 | MIR | 84 | 48.85 | TEM | 48 | 48.11 |

| | | | | | | | | |
|----------|-----|-------|-----|-----|-------|-----|-----|-------|
| SAJ | 34 | 46.16 | MIH | 86 | 42.84 | RUD | 76 | 42.57 |
| BPL | 45 | 42.32 | BAS | 37 | 42.21 | NEU | 55 | 41.82 |
| SCR | 42 | 40.87 | BAT | 62 | 40.00 | HOR | 19 | 37.95 |
| KRU | 71 | 37.37 | VBA | 103 | 37.17 | PER | 51 | 36.88 |
| MKR | 65 | 35.69 | BKA | 57 | 35.33 | SMG | 93 | 34.52 |
| JAG | 107 | 32.14 | ZAO | 90 | 32.00 | VAJ | 43 | 31.35 |
| BEC | 29 | 31.08 | JAB | 85 | 31.06 | BAJ | 5 | 30.23 |
| POC | 73 | 27.83 | RLJ | 105 | 27.12 | KBH | 6 | 26.28 |
| SEN | 31 | 25.97 | BPS | 30 | 25.54 | ADA | 32 | 25.28 |
| PAL | 18 | 24.96 | ZRE | 52 | 24.79 | BEZ | 21 | 23.69 |
| CUM | 77 | 23.44 | NEG | 88 | 22.61 | ZAG | 80 | 22.14 |
| CUP | 109 | 21.67 | BCL | 15 | 21.47 | BCS | 4 | 21.19 |
| ZAV | 72 | 20.90 | SRM | 60 | 20.84 | BTS | 66 | 20.07 |
| DJU | 110 | 19.81 | ALP | 3 | 19.57 | UZD | 54 | 19.34 |
| OSI | 1 | 19.27 | KRV | 101 | 19.12 | VGR | 68 | 19.05 |
| BTO | 25 | 18.79 | ORA | 12 | 18.60 | SPL | 79 | 18.58 |
| KIK | 38 | 18.37 | PDN | 56 | 18.22 | BAC | 44 | 18.16 |
| NSA | 47 | 18.14 | DOB | 69 | 17.84 | TMS | 53 | 17.79 |
| DTS | 14 | 17.78 | TOR | 27 | 17.76 | GUN | 26 | 17.72 |
| BCR | 67 | 17.44 | LJU | 70 | 17.16 | SOM | 23 | 16.95 |
| ZLT | 81 | 16.74 | VRS | 58 | 16.67 | CAL | 16 | 16.66 |
| KRS | 108 | 16.57 | TRD | 39 | 16.18 | BAN | 11 | 14.99 |
| BGD | 63 | 14.55 | LOZ | 59 | 14.26 | SIP | 87 | 14.05 |
| RAD | 64 | 13.72 | BPT | 46 | 12.52 | VLJ | 74 | 12.49 |
| TOB | 40 | 11.71 | CRN | 83 | 11.63 | VAL | 2 | 11.31 |
| BMK | 24 | 11.27 | SNM | 9 | 10.68 | RZS | 7 | 10.35 |
| SZE | 8 | 9.96 | BMO | 20 | 9.74 | PBG | 91 | 9.39 |
| POZ | 97 | 9.14 | ZAJ | 114 | 8.67 | RUS | 41 | 8.39 |
| KRG | 78 | 8.33 | TIM | 10 | 7.27 | KNJ | 113 | 5.75 |
| AVERAGE: | | 34.73 | | | | | | |

Table 3.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| ZAG | 80 | 0.23 | MOK | 36 | 0.30 | PBG | 91 | 0.42 |
| KNJ | 113 | 0.44 | SMG | 93 | 0.47 | POC | 73 | 0.49 |
| SOK | 112 | 0.49 | ZAV | 72 | 0.50 | GOC | 102 | 0.51 |
| LOZ | 59 | 0.51 | SEM | 13 | 0.51 | BCL | 15 | 0.53 |
| NGB | 95 | 0.53 | ZLT | 81 | 0.53 | BBA | 92 | 0.53 |
| BJE | 96 | 0.54 | POZ | 97 | 0.55 | VRD | 100 | 0.56 |
| BAN | 11 | 0.56 | NEU | 55 | 0.57 | SNM | 9 | 0.57 |
| ZAJ | 114 | 0.58 | LJU | 70 | 0.58 | TIM | 10 | 0.58 |
| DTS | 14 | 0.58 | RUD | 76 | 0.58 | MIH | 86 | 0.58 |
| SUR | 61 | 0.58 | ALE | 111 | 0.58 | RZS | 7 | 0.58 |
| KAO | 99 | 0.59 | VGR | 68 | 0.59 | VAJ | 43 | 0.59 |
| CUP | 109 | 0.60 | TRS | 104 | 0.60 | SRM | 60 | 0.60 |
| ZAO | 90 | 0.60 | JAG | 107 | 0.61 | BTS | 66 | 0.61 |
| VBA | 103 | 0.62 | PRH | 89 | 0.62 | KRG | 78 | 0.62 |
| KRU | 71 | 0.62 | KRV | 101 | 0.62 | BAC | 44 | 0.62 |
| ORA | 12 | 0.63 | RAD | 64 | 0.63 | CAL | 16 | 0.63 |
| MKR | 65 | 0.63 | DAR | 75 | 0.63 | SAJ | 34 | 0.63 |
| RLJ | 105 | 0.64 | ZLA | 94 | 0.64 | DJU | 110 | 0.64 |
| BEC | 29 | 0.64 | DOB | 69 | 0.64 | ALP | 3 | 0.64 |
| GDO | 98 | 0.64 | CUM | 77 | 0.65 | BCR | 67 | 0.65 |
| CRN | 83 | 0.65 | BCS | 4 | 0.66 | BMK | 24 | 0.66 |
| KBH | 6 | 0.66 | SPL | 79 | 0.66 | BKA | 57 | 0.67 |
| REK | 106 | 0.67 | RGL | 82 | 0.67 | VAL | 2 | 0.67 |
| NBC | 33 | 0.67 | BAJ | 5 | 0.68 | SEN | 31 | 0.68 |
| SZE | 8 | 0.69 | TOR | 27 | 0.69 | SUB | 17 | 0.69 |
| BGD | 63 | 0.69 | VRS | 58 | 0.70 | RUS | 41 | 0.70 |

| CARPATCLIM | | | Date | | | Version | | | Page | | |
|---------------|-----|------|-------------------|----|------|--------------|----|------|-----------|--|--|
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| KRS | 108 | 0.70 | BAT | 62 | 0.71 | BAS | 37 | 0.71 | | | |
| VLJ | 74 | 0.71 | KIK | 38 | 0.71 | BPT | 46 | 0.71 | | | |
| BTO | 25 | 0.71 | SCR | 42 | 0.71 | TRD | 39 | 0.72 | | | |
| SIP | 87 | 0.72 | ZRE | 52 | 0.72 | JAB | 85 | 0.72 | | | |
| PDN | 56 | 0.72 | OSI | 1 | 0.73 | HOR | 19 | 0.73 | | | |
| TOB | 40 | 0.73 | GUN | 26 | 0.74 | SOM | 23 | 0.74 | | | |
| ARA | 50 | 0.74 | NSA | 47 | 0.74 | BMO | 20 | 0.75 | | | |
| BGR | 28 | 0.75 | BPL | 45 | 0.75 | GAK | 22 | 0.76 | | | |
| MEL | 35 | 0.76 | ADA | 32 | 0.76 | BEZ | 21 | 0.76 | | | |
| PAL | 18 | 0.76 | NEG | 88 | 0.76 | MOS | 49 | 0.76 | | | |
| BPS | 30 | 0.77 | TMS | 53 | 0.77 | MIR | 84 | 0.77 | | | |
| TEM | 48 | 0.77 | PER | 51 | 0.78 | UZD | 54 | 0.79 | | | |
| AVERAGE: | | 0.64 | | | | | | | | | |

Table 3.2c. Station parameters of the series system of Serbia and near border series from Croatia, Hungary, Romania

| index | lambda (x) | fi (y) | |
|-------|------------|------------|-----------------------|
| 1 | 18.5614167 | 45.4998889 | Osijek |
| 2 | 18.3447778 | 45.6665278 | Valpovo |
| 3 | 18.9780278 | 45.5332500 | Aljmas Planina |
| 4 | 19.1500000 | 46.1166667 | Bacsbokod |
| 5 | 19.0166667 | 46.1833333 | Baja |
| 6 | 20.2833333 | 46.1500000 | Kubekhaza |
| 7 | 19.7666667 | 46.3166667 | Ruzsa |
| 8 | 20.0902778 | 46.2561111 | Szeged |
| 9 | 20.6015600 | 46.0712863 | Sannicolau Mare |
| 10 | 21.2580711 | 45.7710564 | Timisoara |
| 11 | 21.1363986 | 45.3827011 | Banloc |
| 12 | 21.7104827 | 45.0387115 | Oravita |
| 13 | 22.0558046 | 45.1813947 | Semenic |
| 14 | 22.6260737 | 44.6264587 | Drobeta Turnu Severin |
| 15 | 23.1130719 | 44.4761811 | Bacles |
| 16 | 22.9460524 | 43.9848998 | Calafat |
| 17 | 19.7112500 | 46.0998611 | Subotica |
| 18 | 19.7640230 | 46.0972180 | Palic |
| 19 | 19.9778056 | 46.1665833 | Horgos |
| 20 | 18.9279722 | 45.7998611 | Backi Monostor |
| 21 | 18.9279722 | 45.8498611 | Bezdan |
| 22 | 19.0613611 | 45.8998611 | Gakovo |
| 23 | 19.1431350 | 45.7670000 | Sombor |
| 24 | 19.4279444 | 45.9665556 | Bajmok |
| 25 | 19.6445833 | 45.8166111 | Backa Topola |
| 26 | 19.8278611 | 45.7666111 | Gunaros |
| 27 | 19.8278611 | 45.8831944 | Tornjos |
| 28 | 20.0278611 | 45.5332500 | Backo Gradiste |
| 29 | 20.0278611 | 45.6332500 | Becej |
| 30 | 20.0778333 | 45.7166389 | Backo Petrovo Selo |
| 31 | 20.0960450 | 45.9234420 | Senta |
| 32 | 20.1278333 | 45.7999167 | Ada |
| 33 | 20.1445556 | 45.5999444 | Novi Becej |
| 34 | 20.2778056 | 45.8499444 | Sajan |
| 35 | 20.3112222 | 45.5166667 | Melenci |
| 36 | 20.4111944 | 45.8999444 | Mokrin |
| 37 | 20.4111944 | 45.6332500 | Basaid |
| 38 | 20.4646400 | 45.8426340 | Kikinda |
| 39 | 20.4611944 | 45.7199444 | Torda |
| 40 | 20.5611944 | 45.6832500 | Toba |
| 41 | 20.5777778 | 45.7499444 | Rusko Selo |
| 42 | 20.6944722 | 45.7299722 | Srpska Crnja |
| 43 | 19.1113889 | 45.4332222 | Vajska |
| 44 | 19.2446667 | 45.3999444 | Bac |
| 45 | 19.3779722 | 45.2499444 | Backa Palanka |
| 46 | 19.6704870 | 45.3365990 | Backi Petrovac |
| 47 | 19.8300030 | 45.3222150 | Novi Sad |
| 48 | 19.8778889 | 45.3999722 | Temerin |

| | | | |
|-----|------------|------------|---------------------|
| 49 | 20.1778611 | 45.3000000 | Mosorin |
| 50 | 20.2945556 | 45.3832778 | Aradac |
| 51 | 20.3778611 | 45.2167222 | Perlez |
| 52 | 20.3760080 | 45.3987240 | Zrenjanin |
| 53 | 20.6278056 | 45.2667222 | Tomasevac |
| 54 | 20.6112222 | 45.2167222 | Uzdin |
| 55 | 20.7111944 | 45.3500000 | Neuzina |
| 56 | 20.7278611 | 45.1166944 | Padina |
| 57 | 21.0277778 | 45.0500556 | Banatski Karlovac |
| 58 | 21.3055240 | 45.1441370 | Vrsac |
| 59 | 19.2269330 | 44.5410990 | Loznica |
| 60 | 19.5550360 | 45.0093730 | Sremska Mitrovica |
| 61 | 20.2910630 | 44.8242370 | Surcin |
| 62 | 20.2779167 | 44.9000278 | Batajnica |
| 63 | 20.4648220 | 44.7984570 | Beograd |
| 64 | 20.5778611 | 44.7500833 | Radmilovac |
| 65 | 21.0111944 | 44.5834444 | Mala Krsna |
| 66 | 21.3111667 | 44.5334722 | Batusa |
| 67 | 21.3221680 | 44.8361470 | Bela Crkva |
| 68 | 21.4984300 | 44.7526140 | Veliko Gradiste |
| 69 | 21.9110833 | 44.6501389 | Dobra |
| 70 | 19.2978090 | 44.2752810 | Ljubovija |
| 71 | 19.3780833 | 44.3667222 | Krupanj |
| 72 | 19.5280556 | 44.4500556 | Zavlaka |
| 73 | 19.7280556 | 44.2167500 | Pocuta |
| 74 | 19.9124730 | 44.2754640 | Valjevo |
| 75 | 20.4612778 | 44.3334444 | Darosava |
| 76 | 20.5113333 | 44.1334444 | Rudnik |
| 77 | 20.7613056 | 44.1334444 | Cumic |
| 78 | 20.9277710 | 44.0272220 | Kragujevac |
| 79 | 20.9421460 | 44.3696000 | Smederevska Palanka |
| 80 | 21.7795770 | 44.1997370 | Zagubica |
| 81 | 21.9778056 | 44.0168889 | Zlot |
| 82 | 22.0944167 | 44.3335278 | Rudna Glava |
| 83 | 22.1444167 | 44.2835278 | Crnajka |
| 84 | 22.2610556 | 44.4835278 | Miroc |
| 85 | 22.3777222 | 44.3501944 | Jabukovac |
| 86 | 22.4943611 | 44.3668889 | Mihajlovac |
| 87 | 22.4944167 | 44.0335833 | Sipikovo |
| 88 | 22.5363400 | 44.2391570 | Negotin |
| 89 | 22.5776944 | 44.3002222 | Prahovo |
| 90 | 19.3948056 | 43.8667778 | Zaovine |
| 91 | 19.4115000 | 43.5168333 | Pribojska Goleša |
| 92 | 19.5614595 | 43.9667870 | Bajina Basta |
| 93 | 19.5781111 | 43.7501389 | Semeđejevo |
| 94 | 19.7130230 | 43.7378070 | Zlatibor |
| 95 | 19.7947778 | 43.5557222 | Negbina |
| 96 | 20.0114167 | 43.6001667 | Bjelusa |
| 97 | 20.0295210 | 43.8430700 | Pozega |
| 98 | 20.0780278 | 43.9668056 | Gornja Dobrinja |
| 99 | 20.4060833 | 43.7169722 | Kaona |
| 100 | 20.5780000 | 43.7168611 | Vrdila |
| 101 | 20.6998360 | 43.7088840 | Kraljevo |
| 102 | 20.8393056 | 43.5504167 | Goc |
| 103 | 20.8890278 | 43.6177222 | Vrnjacka Banja |
| 104 | 21.0112778 | 43.6335556 | Trstenik |
| 105 | 21.0779444 | 43.7168889 | Riljac |
| 106 | 21.0945833 | 43.8668611 | Rekovac |
| 107 | 21.2224722 | 43.9835833 | Jagodina |
| 108 | 21.3399540 | 43.5640540 | Krusevac |
| 109 | 21.3806360 | 43.9406160 | Cuprija |
| 110 | 21.5112222 | 43.5835833 | Djunis |
| 111 | 21.7112222 | 43.5336111 | Aleksinac |
| 112 | 21.8580278 | 43.6409722 | Sokobanja |
| 113 | 22.2611389 | 43.5336389 | Knjazevac |
| 114 | 22.2885650 | 43.8831280 | Zajecar |

Table 3.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.01): 31.00

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 534228 | 154 | 144.90 | 439534 | 23 | 137.99 | 514135 | 138 | 111.64 |
| 704437 | 152 | 105.37 | 539136 | 131 | 98.55 | 740409 | 130 | 83.08 |
| 646247 | 100 | 76.77 | 642324 | 159 | 66.19 | 446853 | 30 | 64.25 |
| 518231 | 52 | 62.98 | 610526 | 147 | 61.34 | 627629 | 146 | 58.57 |
| 622250 | 127 | 56.64 | 527527 | 61 | 55.40 | 719507 | 114 | 55.11 |
| 445718 | 29 | 53.24 | 515231 | 49 | 52.70 | 655650 | 105 | 51.86 |
| 523530 | 56 | 51.58 | 551459 | 72 | 49.21 | 430608 | 20 | 48.21 |
| 528205 | 148 | 46.62 | 551621 | 73 | 46.45 | 511912 | 48 | 44.94 |
| 632229 | 93 | 44.84 | 526423 | 163 | 44.34 | 528518 | 62 | 43.50 |
| 509940 | 45 | 43.02 | 728310 | 128 | 41.90 | 629707 | 150 | 41.03 |
| 609331 | 141 | 40.95 | 435535 | 151 | 40.37 | 739322 | 125 | 39.20 |
| 546339 | 135 | 39.02 | 737439 | 117 | 38.90 | 541154 | 67 | 38.73 |
| 628246 | 126 | 38.71 | 751555 | 123 | 38.31 | 359257 | 5 | 38.11 |
| 635347 | 96 | 38.03 | 432814 | 134 | 37.97 | 525215 | 58 | 37.42 |
| 728620 | 137 | 36.38 | 408800 | 10 | 36.16 | 414352 | 13 | 34.96 |
| 33658 | 179 | 33.27 | 708430 | 109 | 33.01 | 622303 | 90 | 32.94 |
| 747356 | 121 | 32.92 | 722657 | 116 | 32.31 | 456526 | 35 | 31.99 |
| 614406 | 142 | 31.89 | 500432 | 37 | 31.86 | 502141 | 39 | 31.38 |
| 758355 | 124 | 31.33 | 740330 | 119 | 30.66 | 422751 | 16 | 30.18 |
| 557334 | 76 | 29.57 | 530801 | 64 | 29.34 | 441757 | 24 | 28.93 |
| 704212 | 162 | 28.58 | 703156 | 108 | 28.57 | 501252 | 38 | 28.48 |
| 645350 | 133 | 28.17 | 555705 | 149 | 27.74 | 617220 | 87 | 27.44 |
| 425606 | 17 | 27.42 | 718410 | 157 | 27.41 | 656555 | 106 | 27.25 |
| 428307 | 18 | 27.04 | 716335 | 153 | 26.85 | 444417 | 27 | 26.57 |
| 707631 | 161 | 26.50 | 655522 | 104 | 26.26 | 635200 | 144 | 26.21 |
| 555640 | 165 | 25.77 | 732353 | 158 | 25.67 | 507158 | 42 | 25.64 |
| 610244 | 83 | 25.22 | 412721 | 11 | 25.08 | 33647 | 181 | 24.98 |
| 444820 | 28 | 24.51 | 602213 | 78 | 24.42 | 525323 | 59 | 24.40 |
| 523328 | 55 | 24.21 | 606705 | 81 | 24.11 | 443639 | 25 | 23.83 |
| 511454 | 166 | 23.47 | 605537 | 80 | 23.34 | 523108 | 54 | 23.08 |
| 710736 | 111 | 22.81 | 635658 | 97 | 22.41 | 600640 | 156 | 22.03 |
| 33638 | 180 | 22.01 | 608121 | 82 | 21.84 | 713428 | 136 | 21.46 |
| 73302 | 170 | 21.24 | 542532 | 69 | 21.17 | 523703 | 57 | 21.08 |
| 724335 | 129 | 20.94 | 455200 | 34 | 20.76 | 517507 | 50 | 20.29 |
| 546115 | 70 | 20.22 | 738554 | 132 | 20.01 | 632432 | 94 | 20.00 |
| 413838 | 12 | 19.69 | 13183 | 176 | 19.43 | 506422 | 41 | 19.43 |
| 530535 | 63 | 19.41 | 509441 | 43 | 19.21 | 600608 | 77 | 19.00 |
| 651305 | 103 | 18.82 | 543209 | 140 | 18.65 | 417530 | 15 | 18.64 |
| 454936 | 33 | 18.59 | 748253 | 122 | 18.50 | 57311 | 169 | 18.31 |
| 349835 | 3 | 18.28 | 359521 | 6 | 18.11 | 347357 | 2 | 18.08 |
| 453344 | 32 | 17.76 | 614740 | 86 | 17.65 | 650727 | 102 | 17.35 |
| 2802 | 172 | 17.13 | 530728 | 143 | 17.12 | 511849 | 47 | 16.53 |
| 739615 | 118 | 16.36 | 401539 | 164 | 16.32 | 634322 | 95 | 16.09 |
| 525358 | 60 | 16.00 | 652326 | 160 | 15.79 | 415816 | 14 | 15.70 |
| 517545 | 51 | 15.67 | 553254 | 75 | 15.53 | 548409 | 71 | 15.36 |
| 618518 | 89 | 15.08 | 346452 | 1 | 15.04 | 457600 | 36 | 14.97 |
| 406421 | 8 | 14.77 | 647334 | 101 | 14.73 | 617637 | 88 | 14.56 |
| 722205 | 115 | 14.29 | 611355 | 84 | 14.07 | 653150 | 145 | 13.94 |
| 452452 | 31 | 13.42 | 66519 | 167 | 13.42 | 445148 | 139 | 13.28 |
| 639744 | 98 | 13.22 | 511349 | 46 | 12.67 | 551716 | 74 | 12.56 |
| 438238 | 22 | 12.52 | 436447 | 21 | 12.39 | 401321 | 7 | 11.66 |

| | | | | | | | | |
|----------|-----|-------|--------|-----|-------|--------|-----|-------|
| 614436 | 85 | 11.65 | 33657 | 182 | 11.45 | 709352 | 110 | 11.36 |
| 622544 | 91 | 11.20 | 714623 | 113 | 11.13 | 741640 | 120 | 10.72 |
| 519622 | 53 | 10.68 | 509649 | 44 | 10.62 | 68101 | 171 | 10.61 |
| 642540 | 99 | 10.42 | 407500 | 9 | 10.39 | 64704 | 168 | 10.24 |
| 539357 | 66 | 9.78 | 428632 | 19 | 9.68 | 604037 | 79 | 9.13 |
| 352557 | 4 | 9.11 | 656621 | 107 | 8.74 | 711305 | 112 | 8.24 |
| 632130 | 92 | 7.89 | 502317 | 40 | 7.83 | 633633 | 155 | 7.78 |
| 13285 | 175 | 7.77 | 13173 | 177 | 7.53 | 33634 | 178 | 6.91 |
| 444127 | 26 | 6.89 | 13174 | 173 | 6.30 | 538416 | 65 | 6.16 |
| 13295 | 174 | 5.80 | 541601 | 68 | 4.94 | | | |
| AVERAGE: | | 28.13 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 534228 | 154 | 335.07 | 514135 | 138 | 155.59 | 610526 | 147 | 152.07 |
| 527527 | 61 | 134.10 | 642324 | 159 | 104.04 | 539136 | 131 | 96.32 |
| 646247 | 100 | 95.97 | 439534 | 23 | 93.37 | 728310 | 128 | 84.90 |
| 740409 | 130 | 81.64 | 551621 | 73 | 78.65 | 528205 | 148 | 78.05 |
| 518231 | 52 | 77.38 | 704437 | 152 | 75.68 | 718410 | 157 | 73.57 |
| 515231 | 49 | 62.30 | 632229 | 93 | 58.70 | 622250 | 127 | 54.05 |
| 751555 | 123 | 52.67 | 628246 | 126 | 52.13 | 509940 | 45 | 51.44 |
| 523530 | 56 | 49.30 | 541154 | 67 | 46.59 | 629707 | 150 | 46.15 |
| 511912 | 48 | 45.79 | 430608 | 20 | 44.97 | 656555 | 106 | 44.27 |
| 728620 | 137 | 43.40 | 526423 | 163 | 43.40 | 422751 | 16 | 43.32 |
| 645350 | 133 | 43.00 | 622303 | 90 | 42.64 | 435535 | 151 | 42.52 |
| 635347 | 96 | 42.41 | 719507 | 114 | 41.72 | 528518 | 62 | 41.68 |
| 441757 | 24 | 40.36 | 445718 | 29 | 39.84 | 412721 | 11 | 39.50 |
| 739322 | 125 | 38.66 | 408800 | 10 | 38.59 | 737439 | 117 | 38.54 |
| 609331 | 141 | 38.23 | 456526 | 35 | 38.15 | 551459 | 72 | 37.97 |
| 655650 | 105 | 36.92 | 33658 | 179 | 35.55 | 732353 | 158 | 35.46 |
| 600608 | 77 | 35.22 | 455200 | 34 | 34.83 | 446853 | 30 | 34.68 |
| 557334 | 76 | 33.51 | 635200 | 144 | 33.47 | 627629 | 146 | 33.01 |
| 546339 | 135 | 32.49 | 758355 | 124 | 32.46 | 500432 | 37 | 32.36 |
| 747356 | 121 | 32.34 | 738554 | 132 | 31.65 | 414352 | 13 | 31.20 |
| 614406 | 142 | 31.13 | 444820 | 28 | 31.06 | 606705 | 81 | 30.00 |
| 703156 | 108 | 29.82 | 555705 | 149 | 29.59 | 525215 | 58 | 29.56 |
| 401539 | 164 | 29.32 | 501252 | 38 | 29.17 | 401321 | 7 | 28.88 |
| 655522 | 104 | 28.56 | 722657 | 116 | 28.40 | 724335 | 129 | 28.04 |
| 66519 | 167 | 28.02 | 523328 | 55 | 27.99 | 428307 | 18 | 27.10 |
| 502141 | 39 | 26.90 | 444417 | 27 | 26.67 | 432814 | 134 | 26.46 |
| 617220 | 87 | 26.07 | 710736 | 111 | 26.04 | 452452 | 31 | 25.66 |
| 618518 | 89 | 25.47 | 614740 | 86 | 25.35 | 530728 | 143 | 25.32 |
| 651305 | 103 | 24.92 | 511454 | 166 | 24.66 | 507158 | 42 | 24.29 |
| 740330 | 119 | 24.14 | 511849 | 47 | 23.99 | 525323 | 59 | 23.99 |
| 716335 | 153 | 23.98 | 543209 | 140 | 23.62 | 610244 | 83 | 23.46 |
| 413838 | 12 | 22.77 | 605537 | 80 | 22.64 | 33638 | 180 | 22.54 |
| 517507 | 50 | 22.48 | 443639 | 25 | 22.48 | 445148 | 139 | 22.39 |
| 33647 | 181 | 22.23 | 704212 | 162 | 22.19 | 530535 | 63 | 21.76 |
| 73302 | 170 | 21.59 | 713428 | 136 | 21.45 | 542532 | 69 | 21.35 |
| 653150 | 145 | 20.96 | 425606 | 17 | 20.76 | 722205 | 115 | 20.64 |
| 349835 | 3 | 20.35 | 359521 | 6 | 20.25 | 634322 | 95 | 20.25 |
| 632432 | 94 | 20.16 | 635658 | 97 | 19.96 | 707631 | 161 | 19.93 |
| 741640 | 120 | 19.77 | 530801 | 64 | 19.62 | 600640 | 156 | 19.25 |
| 647334 | 101 | 18.81 | 611355 | 84 | 18.38 | 2802 | 172 | 18.23 |
| 650727 | 102 | 18.21 | 57311 | 169 | 18.09 | 457600 | 36 | 18.00 |
| 346452 | 1 | 17.81 | 633633 | 155 | 17.76 | 622544 | 91 | 17.49 |
| 652326 | 160 | 17.46 | 13183 | 176 | 17.44 | 555640 | 165 | 17.02 |
| 709352 | 110 | 16.91 | 548409 | 71 | 16.72 | 517545 | 51 | 16.67 |
| 359257 | 5 | 16.66 | 525358 | 60 | 16.57 | 33657 | 182 | 16.34 |
| 523108 | 54 | 16.34 | 748253 | 122 | 16.07 | 454936 | 33 | 15.73 |
| 415816 | 14 | 15.56 | 602213 | 78 | 15.43 | 406421 | 8 | 15.32 |
| 347357 | 2 | 15.32 | 453344 | 32 | 15.27 | 617637 | 88 | 14.95 |
| 417530 | 15 | 14.91 | 739615 | 118 | 14.60 | 523703 | 57 | 14.27 |

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|-----------------------------|-----|---------------------------|--------|-------------------------|-------|-------------------|-----|-------|
| 551716 | 74 | 14.26 | 509441 | 43 | 13.81 | 58300 | 171 | 13.65 |
| 407500 | 9 | 13.43 | 708430 | 109 | 13.38 | 553254 | 75 | 12.81 |
| 506422 | 41 | 12.65 | 608121 | 82 | 12.46 | 614436 | 85 | 11.89 |
| 632130 | 92 | 11.68 | 64704 | 168 | 11.34 | 714623 | 113 | 11.30 |
| 639744 | 98 | 11.17 | 438238 | 22 | 11.16 | 546115 | 70 | 10.37 |
| 436447 | 21 | 10.20 | 519622 | 53 | 10.01 | 509649 | 44 | 10.00 |
| 539357 | 66 | 9.70 | 428632 | 19 | 9.51 | 642540 | 99 | 9.17 |
| 511349 | 46 | 9.10 | 352557 | 4 | 8.80 | 656621 | 107 | 8.76 |
| 711305 | 112 | 8.33 | 502317 | 40 | 8.02 | 604037 | 79 | 7.72 |
| 13174 | 173 | 7.55 | 13285 | 175 | 6.96 | 538416 | 65 | 6.70 |
| 33634 | 178 | 6.67 | 13295 | 174 | 6.61 | 444127 | 26 | 6.51 |
| 13173 | 177 | 5.31 | 541601 | 68 | 4.52 | | | |
| AVERAGE: | | 31.88 | | | | | | |

Table 3.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 349835 | 3 | 0.31 | 628246 | 126 | 0.35 | 528205 | 148 | 0.37 |
| 454936 | 33 | 0.38 | 713428 | 136 | 0.41 | 511912 | 48 | 0.41 |
| 64704 | 168 | 0.42 | 629707 | 150 | 0.42 | 634322 | 95 | 0.42 |
| 33657 | 182 | 0.43 | 539357 | 66 | 0.44 | 718410 | 157 | 0.44 |
| 509940 | 45 | 0.45 | 622250 | 127 | 0.46 | 737439 | 117 | 0.46 |
| 732353 | 158 | 0.47 | 704437 | 152 | 0.47 | 655522 | 104 | 0.47 |
| 509649 | 44 | 0.49 | 511849 | 47 | 0.49 | 551621 | 73 | 0.49 |
| 600608 | 77 | 0.50 | 527527 | 61 | 0.51 | 432814 | 134 | 0.51 |
| 541601 | 68 | 0.51 | 642324 | 159 | 0.52 | 347357 | 2 | 0.52 |
| 710736 | 111 | 0.52 | 646247 | 100 | 0.52 | 530801 | 64 | 0.52 |
| 642540 | 99 | 0.52 | 413838 | 12 | 0.52 | 618518 | 89 | 0.53 |
| 719507 | 114 | 0.53 | 415816 | 14 | 0.53 | 33647 | 181 | 0.53 |
| 656555 | 106 | 0.53 | 605537 | 80 | 0.53 | 33634 | 178 | 0.54 |
| 408800 | 10 | 0.54 | 639744 | 98 | 0.54 | 428632 | 19 | 0.54 |
| 525358 | 60 | 0.55 | 543209 | 140 | 0.55 | 609331 | 141 | 0.55 |
| 73302 | 170 | 0.55 | 635347 | 96 | 0.55 | 530535 | 63 | 0.55 |
| 445148 | 139 | 0.56 | 530728 | 143 | 0.56 | 738554 | 132 | 0.56 |
| 33658 | 179 | 0.56 | 604037 | 79 | 0.56 | 724335 | 129 | 0.56 |
| 519622 | 53 | 0.56 | 748253 | 122 | 0.56 | 13285 | 175 | 0.56 |
| 443639 | 25 | 0.57 | 13295 | 174 | 0.57 | 444820 | 28 | 0.57 |
| 428307 | 18 | 0.57 | 633633 | 155 | 0.57 | 747356 | 121 | 0.57 |
| 652326 | 160 | 0.57 | 523108 | 54 | 0.57 | 525215 | 58 | 0.57 |
| 68101 | 171 | 0.57 | 352557 | 4 | 0.57 | 635658 | 97 | 0.57 |
| 614406 | 142 | 0.57 | 406421 | 8 | 0.57 | 739322 | 125 | 0.58 |
| 708430 | 109 | 0.58 | 525323 | 59 | 0.58 | 515231 | 49 | 0.58 |
| 741640 | 120 | 0.58 | 33638 | 180 | 0.58 | 610526 | 147 | 0.58 |
| 401539 | 164 | 0.58 | 614740 | 86 | 0.59 | 647334 | 101 | 0.59 |
| 703156 | 108 | 0.59 | 714623 | 113 | 0.59 | 614436 | 85 | 0.59 |
| 722205 | 115 | 0.59 | 739615 | 118 | 0.59 | 740409 | 130 | 0.59 |
| 602213 | 78 | 0.60 | 557334 | 76 | 0.60 | 541154 | 67 | 0.60 |
| 407500 | 9 | 0.60 | 441757 | 24 | 0.60 | 645350 | 133 | 0.60 |
| 622303 | 90 | 0.60 | 455200 | 34 | 0.60 | 436447 | 21 | 0.60 |
| 13173 | 177 | 0.60 | 359257 | 5 | 0.60 | 446853 | 30 | 0.60 |
| 622544 | 91 | 0.60 | 655650 | 105 | 0.60 | 553254 | 75 | 0.60 |
| 507158 | 42 | 0.61 | 551459 | 72 | 0.61 | 534228 | 154 | 0.61 |
| 517545 | 51 | 0.61 | 346452 | 1 | 0.61 | 417530 | 15 | 0.61 |
| 632229 | 93 | 0.62 | 452452 | 31 | 0.62 | 538416 | 65 | 0.62 |
| 422751 | 16 | 0.62 | 632130 | 92 | 0.62 | 611355 | 84 | 0.62 |
| 728310 | 128 | 0.62 | 709352 | 110 | 0.62 | 438238 | 22 | 0.62 |
| 359521 | 6 | 0.62 | 651305 | 103 | 0.63 | 414352 | 13 | 0.63 |
| 551716 | 74 | 0.63 | 412721 | 11 | 0.63 | 13174 | 173 | 0.63 |
| 514135 | 138 | 0.63 | 445718 | 29 | 0.63 | 2802 | 172 | 0.63 |

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| 555640 | 165 | 0.63 | 656621 | 107 | 0.63 | 555705 | 149 | 0.64 |
| 523328 | 55 | 0.64 | 707631 | 161 | 0.64 | 617637 | 88 | 0.64 |
| 425606 | 17 | 0.64 | 457600 | 36 | 0.64 | 632432 | 94 | 0.64 |
| 511454 | 166 | 0.64 | 523703 | 57 | 0.64 | 528518 | 62 | 0.64 |
| 517507 | 50 | 0.64 | 453344 | 32 | 0.64 | 501252 | 38 | 0.64 |
| 758355 | 124 | 0.65 | 548409 | 71 | 0.65 | 526423 | 163 | 0.65 |
| 546339 | 135 | 0.65 | 66519 | 167 | 0.65 | 509441 | 43 | 0.65 |
| 506422 | 41 | 0.65 | 401321 | 7 | 0.65 | 728620 | 137 | 0.65 |
| 716335 | 153 | 0.65 | 502141 | 39 | 0.66 | 518231 | 52 | 0.66 |
| 722657 | 116 | 0.66 | 600640 | 156 | 0.67 | 444127 | 26 | 0.67 |
| 13183 | 176 | 0.67 | 546115 | 70 | 0.67 | 740330 | 119 | 0.67 |
| 500432 | 37 | 0.68 | 539136 | 131 | 0.68 | 57311 | 169 | 0.68 |
| 542532 | 69 | 0.68 | 650727 | 102 | 0.68 | 444417 | 27 | 0.68 |
| 502317 | 40 | 0.69 | 608121 | 82 | 0.69 | 523530 | 56 | 0.70 |
| 606705 | 81 | 0.70 | 610244 | 83 | 0.70 | 456526 | 35 | 0.70 |
| 711305 | 112 | 0.70 | 617220 | 87 | 0.70 | 435535 | 151 | 0.71 |
| 627629 | 146 | 0.72 | 751555 | 123 | 0.73 | 430608 | 20 | 0.73 |
| 511349 | 46 | 0.73 | 653150 | 145 | 0.75 | 704212 | 162 | 0.75 |
| 635200 | 144 | 0.76 | 439534 | 23 | 0.77 | | | |
| AVERAGE: | | 0.59 | | | | | | |

Table 3.3c. Station parameters of the series system of Romania and near border series from Serbia, Hungary, Ukraine

| index | lambda | fi | ST_ID | h | ST_NAME |
|-------|-----------|-----------|--------|------|-----------------|
| 1 | 24.879770 | 43.760422 | 346452 | 31 | TURNU |
| 2 | 23.945690 | 43.790058 | 347357 | 37 | BECHET |
| 3 | 28.588980 | 43.816471 | 349835 | 6 | MANGALIA |
| 4 | 25.934219 | 43.875469 | 352557 | 23 | GIURGIU |
| 5 | 22.947571 | 43.985249 | 359257 | 62 | CALAFAT |
| 6 | 25.354370 | 43.978291 | 359521 | 74 | ALEXANDRIA |
| 7 | 23.332621 | 44.029510 | 401321 | 58 | BAILESTI |
| 8 | 24.358810 | 44.100441 | 406421 | 107 | CARACAL |
| 9 | 24.980030 | 44.107738 | 407500 | 105 | ROSIORII |
| 10 | 27.967131 | 44.088619 | 408800 | 159 | ADAMCLISI |
| 11 | 27.339861 | 44.206429 | 412721 | 19 | CALARASI |
| 12 | 28.646379 | 44.214088 | 413838 | 12 | CONSTANTA |
| 13 | 23.868460 | 44.310600 | 414352 | 194 | CRAIOVA |
| 14 | 28.252880 | 44.243561 | 415816 | 66 | MEDGIDIA |
| 15 | 25.538540 | 44.283260 | 417530 | 106 | VIDELE |
| 16 | 27.840481 | 44.391781 | 422751 | 57 | FETESTI |
| 17 | 26.095320 | 44.412361 | 425606 | 84 | BUCURESTI |
| 18 | 23.114580 | 44.476719 | 428307 | 316 | BICLES |
| 19 | 26.525049 | 44.453232 | 428632 | 65 | FUNDULEA |
| 20 | 26.079760 | 44.510818 | 430608 | 92 | BUCURESTI |
| 21 | 24.791531 | 44.562881 | 436447 | 210 | STOLNICI |
| 22 | 22.627649 | 44.626732 | 438238 | 73 | DR. TR. SEVERIN |
| 23 | 25.580740 | 44.653198 | 439534 | 155 | TITU |
| 24 | 27.965080 | 44.692001 | 441757 | 33 | HIRSOVA |
| 25 | 26.658560 | 44.721951 | 443639 | 57 | URZICENI |
| 26 | 21.634609 | 44.722851 | 444127 | 79 | MOLDOVA |
| 27 | 24.238710 | 44.665760 | 444417 | 274 | DRAGASANI |
| 28 | 28.343580 | 44.734699 | 444820 | 221 | CORUGEA |
| 29 | 27.295990 | 44.740959 | 445718 | 43 | GRIVITA |
| 30 | 28.877930 | 44.766411 | 446853 | 37 | JURILOVCA |
| 31 | 24.867460 | 44.849289 | 452452 | 322 | PITESTI |
| 32 | 23.710239 | 44.878422 | 453344 | 267 | TG. LOGRESTI |
| 33 | 29.600519 | 44.896870 | 454936 | 1 | SF. |
| 34 | 22.007740 | 44.918652 | 455200 | 251 | BOZOVICI |
| 35 | 25.427259 | 44.929909 | 456526 | 297 | TIRGOVISTE |
| 36 | 25.988991 | 44.956089 | 457600 | 181 | PLOIESTI |
| 37 | 24.571791 | 45.016289 | 500432 | 552 | DEDULESTI |
| 38 | 22.861050 | 44.997139 | 501252 | 261 | PADES (APA |
| 39 | 21.711840 | 45.038960 | 502141 | 303 | ORAVITA |
| 40 | 23.260880 | 45.040958 | 502317 | 203 | TG. JIU |
| 41 | 24.380980 | 45.089191 | 506422 | 229 | RM. |
| 42 | 22.057119 | 45.181728 | 507158 | 1432 | SEMENIC |
| 43 | 24.671280 | 45.179169 | 509441 | 455 | CURTEA |
| 44 | 26.853001 | 45.132912 | 509649 | 90 | BUZAU |
| 45 | 29.760450 | 45.148689 | 509940 | 0 | SULINA |
| 46 | 23.810150 | 45.165871 | 511349 | 531 | POLOVRAGI |

| | | | | | |
|-----|-----------|-----------|--------|------|-------------------|
| 47 | 28.825689 | 45.190842 | 511849 | 2 | TULCEA |
| 48 | 29.158270 | 45.177109 | 511912 | 1 | GORGOVA |
| 49 | 22.534340 | 45.281170 | 515231 | 2184 | TARCU |
| 50 | 25.038139 | 45.275150 | 517507 | 684 | CIMPULUNG |
| 51 | 25.753950 | 45.144482 | 517545 | 486 | CIMPINA |
| 52 | 22.503050 | 45.300812 | 518231 | 1478 | CUNTU |
| 53 | 26.370800 | 45.324959 | 519622 | 285 | PATIRLAGELE |
| 54 | 21.137970 | 45.383049 | 523108 | 80 | BANLOC |
| 55 | 23.464621 | 45.387691 | 523328 | 1560 | PARING |
| 56 | 25.515711 | 45.355259 | 523530 | 1511 | SINAIA(1500) |
| 57 | 27.040159 | 45.390751 | 523703 | 145 | RM. |
| 58 | 22.226839 | 45.417561 | 525215 | 210 | CARANSEBES |
| 59 | 23.378250 | 45.406609 | 525323 | 610 | PETROSANI |
| 60 | 23.968550 | 45.411499 | 525358 | 579 | VOINEASA |
| 61 | 25.458260 | 45.446140 | 527527 | 2514 | VF. |
| 62 | 25.273270 | 45.431911 | 528518 | 1372 | FUNDATA |
| 63 | 25.585100 | 45.506458 | 530535 | 1101 | PREDEAL |
| 64 | 28.033930 | 45.473301 | 530801 | 68 | GALATI |
| 65 | 24.273180 | 45.653179 | 538416 | 506 | BOITA |
| 66 | 23.934000 | 45.657509 | 539357 | 1466 | PALTINIS |
| 67 | 21.934629 | 45.686729 | 541154 | 122 | LUGOJ |
| 68 | 26.058300 | 45.668549 | 541601 | 697 | INT.BUZAULUI |
| 69 | 25.527719 | 45.696129 | 542532 | 537 | BRASOV |
| 70 | 21.259359 | 45.771461 | 546115 | 87 | TIMISOARA |
| 71 | 24.092939 | 45.789700 | 548409 | 446 | SIBIU |
| 72 | 24.936720 | 45.836361 | 551459 | 428 | FAGARAS |
| 73 | 26.377081 | 45.824009 | 551621 | 1783 | LACAUTI |
| 74 | 27.410360 | 45.841949 | 551716 | 58 | TECUCI |
| 75 | 22.900459 | 45.865040 | 553254 | 236 | DEVA |
| 76 | 23.543091 | 45.964531 | 557334 | 254 | SEBES-ALBA |
| 77 | 26.116871 | 45.993240 | 600608 | 570 | TG.SECUIESC |
| 78 | 22.152420 | 46.019489 | 602213 | 152 | VARADIA |
| 79 | 20.603161 | 46.071629 | 604037 | 82 | SINNICOLU |
| 80 | 25.597401 | 46.081039 | 605537 | 508 | BARAOLT |
| 81 | 27.171810 | 46.105019 | 606705 | 103 | ADJUD |
| 82 | 21.355221 | 46.133850 | 608121 | 115 | ARAD |
| 83 | 22.727699 | 46.169762 | 610244 | 268 | TEBEA |
| 84 | 23.936769 | 46.178822 | 611355 | 327 | BLAJ |
| 85 | 24.593180 | 46.228249 | 614436 | 320 | DUMBRAVENI |
| 86 | 27.645580 | 46.231361 | 614740 | 167 | BIRLAD |
| 87 | 22.334900 | 46.279510 | 617220 | 175 | GURAHONT |
| 88 | 26.642590 | 46.272961 | 617637 | 245 | TG. |
| 89 | 25.293341 | 46.297089 | 618518 | 522 | ODORHEIUL |
| 90 | 23.041950 | 46.364101 | 622303 | 618 | CIMPENI (BISTRA) |
| 91 | 25.774170 | 46.371578 | 622544 | 665 | MERCUREA |
| 92 | 21.542999 | 46.518940 | 632130 | 93 | CHISINEU |
| 93 | 22.468090 | 46.528320 | 632229 | 282 | STEI |
| 94 | 24.535330 | 46.533680 | 632432 | 306 | TG.MURES |
| 95 | 23.311819 | 46.535770 | 634322 | 1355 | BAISOARA |
| 96 | 23.792839 | 46.583389 | 635347 | 424 | TURDA |
| 97 | 26.914070 | 46.532150 | 635658 | 184 | BACAU |
| 98 | 27.715830 | 46.646240 | 639744 | 117 | VASLUI |
| 99 | 25.514170 | 46.706081 | 642540 | 752 | JOSENI |
| 100 | 22.795790 | 46.759560 | 646247 | 1843 | VLADEASA |
| 101 | 23.572990 | 46.777988 | 647334 | 407 | CLUJ-NAPOCA |
| 102 | 27.443701 | 46.838329 | 650727 | 132 | NEGRESTI (VASLUI) |
| 103 | 23.034121 | 46.857651 | 651305 | 560 | HUEDIN |
| 104 | 25.361530 | 46.926640 | 655522 | 675 | TOPLITA |
| 105 | 26.913389 | 46.969460 | 655650 | 220 | ROMAN |
| 106 | 25.951509 | 46.977760 | 656555 | 1873 | CEAHLAU |
| 107 | 26.390900 | 46.934021 | 656621 | 360 | PIATRA |
| 108 | 21.897551 | 47.036018 | 703156 | 134 | ORADEA |
| 109 | 24.515450 | 47.149422 | 708430 | 370 | BISTRITA |
| 110 | 23.900499 | 47.128262 | 709352 | 236 | DEJ |
| 111 | 27.630079 | 47.171059 | 710736 | 100 | IASI |
| 112 | 23.048361 | 47.195278 | 711305 | 294 | ZALAU |
| 113 | 26.380590 | 47.212429 | 714623 | 386 | TG. |
| 114 | 25.136040 | 47.324921 | 719507 | 922 | POIANA |
| 115 | 22.095800 | 47.344471 | 722205 | 119 | SACUIENI |
| 116 | 26.927410 | 47.358669 | 722657 | 286 | COTNARI |
| 117 | 24.650730 | 47.602829 | 737439 | 1789 | IEZER |
| 118 | 26.241961 | 47.633282 | 739615 | 360 | SUCEAVA |
| 119 | 23.493240 | 47.661209 | 740330 | 211 | BAIA-MARE |
| 120 | 26.647039 | 47.736050 | 741640 | 152 | BOTOSANI |
| 121 | 23.942141 | 47.777370 | 747356 | 503 | OC.SUGATAG |
| 122 | 22.888781 | 47.721771 | 748253 | 121 | SATU |
| 123 | 25.891850 | 47.838009 | 751555 | 385 | RADAUTI |
| 124 | 23.905880 | 47.939571 | 758355 | 272 | SIGHETUL |
| 125 | 23.366671 | 47.650002 | 739322 | 158 | ARDUSAT |
| 126 | 22.766670 | 46.466671 | 628246 | 839 | ARIESENI |
| 127 | 22.833330 | 46.366669 | 622250 | 876 | AVRAM |

| | | | | | |
|-----|-----------|-----------|--------|-----|----------------------|
| 128 | 23.166670 | 47.466671 | 728310 | 177 | BASESTI |
| 129 | 23.583330 | 47.400002 | 724335 | 437 | BOIU |
| 130 | 24.150000 | 47.666672 | 740409 | 490 | BOTIZA |
| 131 | 21.600000 | 45.650002 | 539136 | 122 | BUZIAS |
| 132 | 25.900000 | 47.633331 | 738554 | 465 | CACICA |
| 133 | 23.833330 | 46.750000 | 645350 | 332 | COJOCNA |
| 134 | 28.233330 | 44.533329 | 432814 | 94 | CRUCEA-CT |
| 135 | 23.650000 | 45.766670 | 546339 | 509 | DOBRA-AB |
| 136 | 24.466669 | 47.216671 | 713428 | 351 | DUMITRA |
| 137 | 26.333330 | 47.466671 | 728620 | 277 | FALTICENI |
| 138 | 21.583330 | 45.233330 | 514135 | 144 | FOROTIC |
| 139 | 21.799999 | 44.750000 | 445148 | 520 | GARNIC |
| 140 | 22.150000 | 45.716671 | 543209 | 296 | HAUZESTI |
| 141 | 23.516670 | 46.150002 | 609331 | 283 | IGHIU |
| 142 | 24.100000 | 46.233330 | 614406 | 264 | JIDVEI |
| 143 | 27.466669 | 45.500000 | 530728 | 18 | MAICANESTI-POST |
| 144 | 22.000000 | 46.583328 | 635200 | 191 | MARAUS |
| 145 | 21.833330 | 46.883331 | 653150 | 121 | MIERSIG |
| 146 | 26.483330 | 46.450001 | 627629 | 561 | MOINESTI |
| 147 | 25.433331 | 46.166672 | 610526 | 523 | OCLAND |
| 148 | 22.083330 | 45.466671 | 528205 | 221 | OHABA |
| 149 | 27.083330 | 45.916672 | 555705 | 267 | PANCIU |
| 150 | 27.116671 | 46.483330 | 629707 | 284 | PARINCEA |
| 151 | 25.583330 | 44.583328 | 435535 | 138 | POTLOGI |
| 152 | 24.616671 | 47.066669 | 704437 | 459 | RAGLA-CETATE |
| 153 | 23.583330 | 47.266670 | 716335 | 264 | RUS |
| 154 | 22.466669 | 45.566669 | 534228 | 422 | RUSCA |
| 155 | 26.549999 | 46.549999 | 633633 | 412 | SOLONT |
| 156 | 26.666670 | 46.000000 | 600640 | 526 | SOVEJA |
| 157 | 24.166670 | 47.299999 | 718410 | 323 | SPERMEZEU |
| 158 | 23.883329 | 47.533329 | 732353 | 508 | STOICENI-TG |
| 159 | 23.400000 | 46.700001 | 642324 | 601 | STOLNA-SAVADISLA |
| 160 | 23.400000 | 46.866669 | 652326 | 565 | SUMURDUCU |
| 161 | 26.516670 | 47.116669 | 707631 | 404 | TIBUCANII |
| 162 | 22.200001 | 47.066669 | 704212 | 172 | TILEAGD |
| 163 | 24.383329 | 45.433331 | 526423 | 649 | TITESTI |
| 164 | 25.650000 | 44.016670 | 401539 | 86 | TOPORU |
| 165 | 26.666670 | 45.916672 | 555640 | 594 | TULNICI |
| 166 | 24.900000 | 45.183331 | 511454 | 491 | VLADESTI-AG |
| 167 | 21.160561 | 46.679440 | 66519 | 83 | Bŭkŭscsaba |
| 168 | 21.610830 | 47.490280 | 64704 | 106 | Debrecen |
| 169 | 20.687500 | 46.544170 | 57311 | 86 | Oroshŕza |
| 170 | 22.625561 | 47.862221 | 73302 | 115 | Pŕstyod |
| 171 | 21.016701 | 46.283298 | 68101 | 99 | Battonya |
| 172 | 21.322170 | 44.836151 | 2802 | 67 | BELACRKVA |
| 173 | 20.464640 | 45.842628 | 13174 | 78 | KIKINDA |
| 174 | 22.536341 | 44.239159 | 13295 | 45 | NEGOTIN |
| 175 | 21.498430 | 44.752609 | 13285 | 81 | VELIKO |
| 176 | 21.305519 | 45.144138 | 13183 | 83 | VRSAC-kontrolisanoJa |
| 177 | 20.376011 | 45.398720 | 13173 | 78 | ZRENJANIN |
| 178 | 22.650000 | 48.200001 | 33634 | 113 | Beregove |
| 179 | 25.972500 | 48.266392 | 33658 | 241 | Chernivtси |
| 180 | 23.299999 | 48.183331 | 33638 | 168 | Khust |
| 181 | 24.198059 | 48.047501 | 33647 | 434 | Rakhiv |
| 182 | 25.216669 | 47.883331 | 33657 | 822 | Seliatyn |

Table 3.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.01): 31.00
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 28 | 28 | 183.45 | 37 | 37 | 128.19 | 10 | 10 | 100.66 |
| 7 | 7 | 63.52 | 13 | 13 | 55.54 | 57 | 57 | 42.11 |
| 23 | 23 | 36.28 | 56 | 56 | 36.14 | 36 | 36 | 35.09 |
| 29 | 29 | 33.53 | 14 | 14 | 33.17 | 26 | 26 | 31.20 |
| 31 | 31 | 29.28 | 43 | 43 | 26.45 | 53 | 53 | 26.31 |
| 22 | 22 | 25.62 | 25 | 25 | 25.37 | 51 | 51 | 25.31 |
| 16 | 16 | 24.49 | 3 | 3 | 23.42 | 6 | 6 | 23.00 |
| 49 | 49 | 22.42 | 15 | 15 | 21.66 | 1 | 1 | 21.04 |
| 27 | 27 | 20.80 | 32 | 32 | 19.37 | 38 | 38 | 18.61 |
| 18 | 18 | 17.65 | 33 | 33 | 17.53 | 12 | 12 | 17.27 |
| 46 | 46 | 16.81 | 5 | 5 | 16.48 | 48 | 48 | 16.12 |
| 52 | 52 | 15.75 | 50 | 50 | 14.61 | 17 | 17 | 14.14 |
| 8 | 8 | 13.86 | 21 | 21 | 13.75 | 54 | 54 | 13.42 |
| 40 | 40 | 13.11 | 4 | 4 | 12.93 | 9 | 9 | 12.90 |
| 44 | 44 | 12.58 | 20 | 20 | 12.00 | 34 | 34 | 11.96 |
| 55 | 55 | 11.88 | 11 | 11 | 11.81 | 24 | 24 | 10.85 |
| 35 | 35 | 10.78 | 45 | 45 | 10.28 | 42 | 42 | 9.83 |
| 2 | 2 | 9.75 | 47 | 47 | 9.64 | 39 | 39 | 9.45 |
| 41 | 41 | 9.26 | 30 | 30 | 8.46 | 19 | 19 | 8.15 |
| AVERAGE: | | 26.58 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 28 | 28 | 196.87 | 37 | 37 | 133.70 | 10 | 10 | 126.29 |
| 13 | 13 | 64.38 | 7 | 7 | 59.63 | 57 | 57 | 47.62 |
| 56 | 56 | 47.52 | 23 | 23 | 42.22 | 25 | 25 | 37.74 |
| 4 | 4 | 36.97 | 14 | 14 | 35.89 | 29 | 29 | 34.71 |
| 16 | 16 | 33.83 | 36 | 36 | 33.08 | 3 | 3 | 31.12 |
| 55 | 55 | 30.54 | 30 | 30 | 28.13 | 26 | 26 | 27.60 |
| 1 | 1 | 26.56 | 51 | 51 | 24.97 | 48 | 48 | 24.87 |
| 6 | 6 | 23.17 | 52 | 52 | 22.03 | 53 | 53 | 21.69 |
| 54 | 54 | 21.40 | 31 | 31 | 20.39 | 38 | 38 | 20.09 |
| 22 | 22 | 19.90 | 21 | 21 | 19.21 | 12 | 12 | 18.99 |
| 18 | 18 | 18.61 | 43 | 43 | 17.83 | 27 | 27 | 17.81 |
| 32 | 32 | 17.79 | 9 | 9 | 17.40 | 46 | 46 | 17.03 |
| 5 | 5 | 16.18 | 8 | 8 | 15.42 | 33 | 33 | 15.06 |
| 44 | 44 | 13.48 | 49 | 49 | 12.68 | 50 | 50 | 12.54 |
| 47 | 47 | 12.40 | 20 | 20 | 12.01 | 40 | 40 | 11.49 |
| 45 | 45 | 11.34 | 24 | 24 | 11.29 | 2 | 2 | 11.12 |
| 17 | 17 | 10.86 | 34 | 34 | 10.12 | 41 | 41 | 9.74 |
| 42 | 42 | 9.64 | 39 | 39 | 8.67 | 35 | 35 | 8.67 |
| 19 | 19 | 8.21 | 15 | 15 | 7.23 | 11 | 11 | 6.21 |
| AVERAGE: | | 28.98 | | | | | | |

Table 3.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 19 | 19 | 0.40 | 11 | 11 | 0.41 | 15 | 15 | 0.42 |
| 33 | 33 | 0.43 | 3 | 3 | 0.45 | 39 | 39 | 0.47 |
| 50 | 50 | 0.49 | 57 | 57 | 0.49 | 51 | 51 | 0.51 |
| 32 | 32 | 0.52 | 48 | 48 | 0.53 | 2 | 2 | 0.53 |
| 1 | 1 | 0.53 | 20 | 20 | 0.53 | 55 | 55 | 0.54 |
| 21 | 21 | 0.54 | 45 | 45 | 0.55 | 35 | 35 | 0.56 |

| CARPATCLIM | | Date | | Version | | Page | | |
|---------------|----|-------------------|----|--------------|------|-----------|----|------|
| <i>Report</i> | | <i>02/10/2012</i> | | <i>final</i> | | <i>63</i> | | |
| 12 | 12 | 0.56 | 40 | 40 | 0.56 | 24 | 24 | 0.57 |
| 18 | 18 | 0.57 | 36 | 36 | 0.58 | 54 | 54 | 0.58 |
| 56 | 56 | 0.58 | 53 | 53 | 0.58 | 8 | 8 | 0.58 |
| 17 | 17 | 0.59 | 5 | 5 | 0.59 | 43 | 43 | 0.59 |
| 4 | 4 | 0.59 | 49 | 49 | 0.59 | 47 | 47 | 0.59 |
| 22 | 22 | 0.60 | 44 | 44 | 0.60 | 38 | 38 | 0.60 |
| 42 | 42 | 0.60 | 34 | 34 | 0.61 | 6 | 6 | 0.61 |
| 9 | 9 | 0.61 | 52 | 52 | 0.61 | 13 | 13 | 0.62 |
| 30 | 30 | 0.62 | 27 | 27 | 0.63 | 7 | 7 | 0.63 |
| 23 | 23 | 0.63 | 37 | 37 | 0.63 | 10 | 10 | 0.64 |
| 25 | 25 | 0.64 | 14 | 14 | 0.65 | 29 | 29 | 0.66 |
| 41 | 41 | 0.66 | 46 | 46 | 0.66 | 26 | 26 | 0.67 |
| 16 | 16 | 0.69 | 31 | 31 | 0.73 | 28 | 28 | 0.77 |
| AVERAGE: | | 0.58 | | | | | | |

Table 3.4c. Station parameters of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

| index | lambda (x) | fi (y) | h |
|-------|-------------|-------------|--------|
| 1 | 24.75000004 | 50.90000005 | 198.0 |
| 2 | 23.63333337 | 50.25000001 | 252.0 |
| 3 | 27.04027778 | 50.16194445 | 277.0 |
| 4 | 25.73333337 | 50.13333334 | 259.0 |
| 5 | 24.35000002 | 50.11666667 | 212.0 |
| 6 | 25.15000001 | 50.08333334 | 227.0 |
| 7 | 23.38333335 | 49.95000005 | 245.0 |
| 8 | 26.20500001 | 49.94805560 | 274.0 |
| 9 | 23.96527783 | 49.80750004 | 319.0 |
| 10 | 23.16666668 | 49.80000004 | 232.0 |
| 11 | 27.93333338 | 49.56666670 | 284.0 |
| 12 | 25.68333337 | 49.53333336 | 327.0 |
| 13 | 24.95000005 | 49.43333336 | 303.0 |
| 14 | 23.56694447 | 49.36222224 | 275.0 |
| 15 | 26.93750005 | 49.35361113 | 350.0 |
| 16 | 23.81666671 | 49.25000001 | 302.0 |
| 17 | 23.03333334 | 49.15000001 | 594.0 |
| 18 | 25.76666671 | 49.01666667 | 320.0 |
| 19 | 28.13333334 | 49.01666667 | 313.0 |
| 20 | 24.00000000 | 48.96666672 | 470.0 |
| 21 | 22.46666669 | 48.90000005 | 205.0 |
| 22 | 24.68888892 | 48.88944449 | 275.0 |
| 23 | 23.45000002 | 48.85000004 | 592.0 |
| 24 | 27.26666668 | 48.85000004 | 292.0 |
| 25 | 23.10000001 | 48.76666671 | 496.0 |
| 26 | 23.36666669 | 48.70000004 | 615.0 |
| 27 | 26.60861114 | 48.69333337 | 217.0 |
| 28 | 23.20694446 | 48.65888892 | 1330.0 |
| 29 | 22.26666668 | 48.63333337 | 113.0 |
| 30 | 25.03333334 | 48.53333336 | 295.0 |
| 31 | 23.50444447 | 48.52666669 | 456.0 |
| 32 | 24.55000003 | 48.45000002 | 531.0 |
| 33 | 27.78333337 | 48.45000002 | 77.0 |
| 34 | 25.97250005 | 48.26638890 | 242.0 |
| 35 | 22.65000003 | 48.20000001 | 113.0 |
| 36 | 23.30000002 | 48.18333334 | 164.0 |
| 37 | 24.53333336 | 48.15000001 | 1451.0 |
| 38 | 24.19805557 | 48.04750000 | 430.0 |
| 39 | 25.21666668 | 47.88333338 | 762.0 |
| 40 | 22.05000000 | 50.10000001 | 212.0 |
| 41 | 22.33333335 | 49.46666669 | 420.0 |
| 42 | 22.06333334 | 49.46638891 | 470.0 |
| 43 | 22.69305559 | 49.24777779 | 615.0 |
| 44 | 22.22083334 | 49.69111115 | 275.0 |
| 45 | 22.40722224 | 49.98527783 | 215.0 |
| 46 | 21.91388894 | 49.25305557 | 305.0 |
| 47 | 22.00583333 | 48.93888894 | 176.0 |
| 48 | 21.73472226 | 48.66805559 | 104.0 |
| 49 | 21.65888892 | 48.38055558 | 100.0 |
| 50 | 21.88694449 | 47.96222227 | 142.0 |
| 51 | 22.62555559 | 47.86222227 | 118.0 |
| 52 | 23.90416671 | 47.93916672 | 276.0 |
| 53 | 25.89027782 | 47.83777782 | 100.0 |
| 54 | 22.88722227 | 47.72138893 | 124.0 |
| 55 | 23.94055560 | 47.77694448 | 100.0 |
| 56 | 23.49138891 | 47.66083337 | 100.0 |
| 57 | 24.64888892 | 47.60277781 | 100.0 |

Table 3.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.01): 31.00

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 10242 | 79 | 169.93 | 96732 | 136 | 152.69 | 96523 | 126 | 148.14 |
| 96408 | 117 | 126.11 | 10247 | 85 | 114.22 | 96552 | 129 | 105.98 |
| 95510 | 114 | 91.94 | 96404 | 115 | 85.61 | 6403 | 100 | 75.00 |
| 6702 | 109 | 69.91 | 10236 | 69 | 67.97 | 96511 | 121 | 66.74 |
| 96743 | 137 | 66.69 | 96426 | 120 | 65.24 | 96520 | 125 | 61.28 |
| 96645 | 134 | 61.25 | 650 | 93 | 59.50 | 6518 | 103 | 57.32 |
| 37040 | 38 | 50.97 | 95409 | 112 | 50.89 | 6605 | 104 | 50.40 |
| 25140 | 20 | 47.84 | 11779 | 68 | 47.04 | 10238 | 73 | 45.65 |
| 34140 | 32 | 44.60 | 26040 | 21 | 43.22 | 96410 | 118 | 41.55 |
| 33060 | 28 | 41.52 | 6513 | 102 | 41.44 | 12100 | 5 | 40.06 |
| 6651 | 108 | 39.80 | 5508 | 97 | 39.76 | 17540 | 10 | 38.84 |
| 96630 | 132 | 38.74 | 600 | 91 | 37.26 | 625 | 92 | 37.17 |
| 10243 | 80 | 34.75 | 96519 | 124 | 33.98 | 96641 | 133 | 33.21 |
| 10237 | 72 | 32.89 | 10248 | 86 | 32.61 | 42800 | 154 | 32.28 |
| 11080 | 2 | 32.02 | 10246 | 83 | 30.98 | 37060 | 39 | 30.89 |
| 11020 | 1 | 30.52 | 10241 | 78 | 29.57 | 11782 | 75 | 29.17 |
| 96569 | 130 | 28.97 | 96407 | 116 | 28.14 | 566 | 88 | 27.92 |
| 51705 | 160 | 27.89 | 10239 | 76 | 27.39 | 580 | 90 | 27.05 |
| 96416 | 119 | 26.89 | 15140 | 8 | 26.45 | 12180 | 6 | 26.34 |
| 540 | 87 | 25.76 | 54200 | 53 | 25.48 | 55180 | 56 | 25.08 |
| 30500 | 25 | 24.82 | 51303 | 159 | 24.54 | 59180 | 63 | 24.52 |
| 46200 | 44 | 24.26 | 52510 | 162 | 24.24 | 44121 | 158 | 24.24 |
| 53101 | 163 | 24.13 | 49120 | 46 | 23.09 | 10244 | 81 | 23.02 |
| 11768 | 84 | 22.79 | 36160 | 36 | 22.73 | 42303 | 152 | 22.58 |
| 11120 | 3 | 22.24 | 55080 | 55 | 22.16 | 22502 | 145 | 21.88 |
| 56120 | 58 | 21.49 | 49380 | 49 | 21.47 | 5409 | 96 | 21.44 |
| 33412 | 149 | 21.10 | 46020 | 43 | 20.89 | 11787 | 74 | 20.83 |
| 27080 | 23 | 20.77 | 6507 | 101 | 20.67 | 56200 | 59 | 20.62 |
| 96537 | 127 | 20.59 | 33631 | 143 | 20.27 | 34040 | 30 | 20.13 |
| 33160 | 29 | 19.99 | 36200 | 37 | 19.84 | 10235 | 66 | 19.60 |
| 34180 | 33 | 19.58 | 37120 | 40 | 19.51 | 48120 | 45 | 19.00 |
| 96512 | 122 | 18.96 | 23703 | 147 | 18.87 | 24300 | 18 | 18.82 |
| 10233 | 64 | 17.93 | 54380 | 54 | 17.79 | 23201 | 146 | 17.66 |
| 52205 | 161 | 17.58 | 11774 | 67 | 17.55 | 37260 | 41 | 17.26 |
| 575 | 89 | 17.21 | 24421 | 148 | 16.82 | 58160 | 61 | 16.16 |
| 14060 | 7 | 16.04 | 49160 | 47 | 15.97 | 43406 | 157 | 15.88 |
| 43128 | 155 | 15.42 | 32140 | 26 | 15.34 | 49260 | 48 | 15.25 |
| 5608 | 99 | 15.23 | 96807 | 138 | 15.07 | 21180 | 15 | 15.04 |
| 96723 | 135 | 14.86 | 27040 | 22 | 14.05 | 33511 | 142 | 14.02 |
| 10234 | 65 | 13.83 | 23100 | 17 | 13.79 | 53220 | 52 | 13.33 |
| 59040 | 62 | 13.31 | 61709 | 164 | 13.17 | 34302 | 151 | 12.91 |
| 96829 | 139 | 12.81 | 96515 | 123 | 12.76 | 6632 | 107 | 12.71 |
| 34080 | 31 | 12.70 | 57120 | 60 | 12.59 | 6628 | 106 | 12.40 |
| 43207 | 156 | 12.28 | 56060 | 57 | 12.17 | 11785 | 71 | 12.07 |
| 37320 | 42 | 11.82 | 690 | 95 | 11.77 | 52140 | 51 | 11.73 |
| 18040 | 12 | 11.47 | 10245 | 82 | 11.46 | 21080 | 14 | 11.40 |
| 51060 | 50 | 11.36 | 96547 | 128 | 11.03 | 6618 | 105 | 10.77 |
| 33514 | 144 | 10.68 | 21320 | 16 | 10.65 | 28200 | 24 | 10.56 |
| 33508 | 150 | 10.49 | 96612 | 131 | 10.37 | 12040 | 4 | 10.36 |
| 32280 | 27 | 10.30 | 33634 | 141 | 10.28 | 95418 | 113 | 9.69 |
| 16160 | 9 | 9.65 | 11766 | 70 | 9.52 | 35140 | 35 | 9.47 |
| 42504 | 153 | 9.13 | 6707 | 110 | 9.05 | 660 | 94 | 8.68 |

| | | | | | | | | |
|----------|-----|-------|-------|-----|------|-------|----|------|
| 62400 | 165 | 8.46 | 20080 | 13 | 8.31 | 5511 | 98 | 8.31 |
| 6809 | 111 | 8.20 | 10240 | 77 | 7.63 | 17680 | 11 | 7.39 |
| 35060 | 34 | 6.85 | 96845 | 140 | 6.01 | 25060 | 19 | 5.95 |
| AVERAGE: | | 28.81 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 6702 | 109 | 229.41 | 96732 | 136 | 218.69 | 96408 | 117 | 207.28 |
| 10247 | 85 | 199.39 | 12100 | 5 | 133.20 | 57120 | 60 | 132.72 |
| 96523 | 126 | 127.47 | 10233 | 64 | 125.08 | 95510 | 114 | 113.47 |
| 10246 | 83 | 111.19 | 11768 | 84 | 102.49 | 650 | 93 | 96.16 |
| 10242 | 79 | 96.02 | 96743 | 137 | 86.59 | 11020 | 1 | 85.19 |
| 25140 | 20 | 80.90 | 96552 | 129 | 75.98 | 625 | 92 | 72.44 |
| 96520 | 125 | 71.04 | 6605 | 104 | 70.35 | 56120 | 58 | 69.46 |
| 6403 | 100 | 67.54 | 56200 | 59 | 66.96 | 49380 | 49 | 66.51 |
| 11080 | 2 | 65.29 | 96426 | 120 | 63.94 | 96404 | 115 | 63.46 |
| 10238 | 73 | 63.26 | 58160 | 61 | 62.43 | 96645 | 134 | 62.12 |
| 6651 | 108 | 62.11 | 11779 | 68 | 61.96 | 10236 | 69 | 61.90 |
| 540 | 87 | 60.99 | 95409 | 112 | 59.59 | 59180 | 63 | 59.09 |
| 6518 | 103 | 55.29 | 6513 | 102 | 54.11 | 96519 | 124 | 53.58 |
| 26040 | 21 | 53.20 | 96410 | 118 | 51.53 | 96641 | 133 | 50.65 |
| 37060 | 39 | 49.69 | 27080 | 23 | 47.93 | 33060 | 28 | 47.23 |
| 51303 | 159 | 46.69 | 54200 | 53 | 46.00 | 34140 | 32 | 44.17 |
| 600 | 91 | 43.75 | 96630 | 132 | 43.70 | 37040 | 38 | 42.83 |
| 5508 | 97 | 41.58 | 17540 | 10 | 41.28 | 10235 | 66 | 38.79 |
| 11120 | 3 | 37.80 | 11782 | 75 | 37.57 | 10241 | 78 | 35.05 |
| 10237 | 72 | 35.01 | 566 | 88 | 34.84 | 96416 | 119 | 31.52 |
| 10248 | 86 | 31.36 | 55180 | 56 | 31.12 | 96407 | 116 | 31.11 |
| 96511 | 121 | 29.40 | 10234 | 65 | 28.91 | 12180 | 6 | 28.05 |
| 96569 | 130 | 27.47 | 580 | 90 | 27.37 | 42800 | 154 | 27.28 |
| 54380 | 54 | 25.99 | 59040 | 62 | 25.91 | 15140 | 8 | 25.30 |
| 96723 | 135 | 25.24 | 44121 | 158 | 25.19 | 10239 | 76 | 25.00 |
| 53101 | 163 | 24.92 | 10243 | 80 | 24.21 | 36160 | 36 | 23.72 |
| 5608 | 99 | 23.09 | 11774 | 67 | 23.00 | 51705 | 160 | 22.98 |
| 24300 | 18 | 22.86 | 34040 | 30 | 22.55 | 37120 | 40 | 22.53 |
| 21180 | 15 | 21.76 | 33508 | 150 | 21.46 | 48120 | 45 | 20.85 |
| 6507 | 101 | 20.81 | 52205 | 161 | 20.71 | 49160 | 47 | 20.63 |
| 22502 | 145 | 20.58 | 33631 | 143 | 20.50 | 49260 | 48 | 19.76 |
| 42303 | 152 | 19.70 | 46200 | 44 | 19.60 | 6628 | 106 | 19.58 |
| 575 | 89 | 19.23 | 23703 | 147 | 19.23 | 49120 | 46 | 19.14 |
| 36200 | 37 | 18.67 | 14060 | 7 | 18.50 | 33160 | 29 | 18.45 |
| 5409 | 96 | 18.39 | 11787 | 74 | 18.27 | 30500 | 25 | 17.55 |
| 96547 | 128 | 17.42 | 23201 | 146 | 17.35 | 32140 | 26 | 17.33 |
| 52510 | 162 | 17.05 | 55080 | 55 | 17.01 | 33412 | 149 | 16.93 |
| 24421 | 148 | 16.90 | 43128 | 155 | 16.84 | 10244 | 81 | 16.72 |
| 96807 | 138 | 15.97 | 52140 | 51 | 15.52 | 43406 | 157 | 15.14 |
| 37260 | 41 | 15.14 | 34180 | 33 | 14.82 | 96512 | 122 | 14.75 |
| 33514 | 144 | 14.62 | 46020 | 43 | 14.62 | 20080 | 13 | 14.61 |
| 35140 | 35 | 14.61 | 53220 | 52 | 14.51 | 61709 | 164 | 14.41 |
| 43207 | 156 | 13.91 | 33511 | 142 | 13.80 | 27040 | 22 | 13.57 |
| 6632 | 107 | 13.46 | 96515 | 123 | 13.35 | 96612 | 131 | 13.00 |
| 56060 | 57 | 12.82 | 34080 | 31 | 12.39 | 34302 | 151 | 12.32 |
| 96829 | 139 | 12.18 | 51060 | 50 | 12.14 | 35060 | 34 | 11.85 |
| 95418 | 113 | 11.85 | 21080 | 14 | 11.71 | 6618 | 105 | 11.61 |
| 37320 | 42 | 10.89 | 10245 | 82 | 10.78 | 12040 | 4 | 10.77 |
| 17680 | 11 | 10.74 | 42504 | 153 | 10.67 | 690 | 95 | 10.66 |
| 6707 | 110 | 10.61 | 96537 | 127 | 10.29 | 33634 | 141 | 10.06 |
| 23100 | 17 | 10.04 | 16160 | 9 | 9.88 | 11766 | 70 | 9.56 |
| 18040 | 12 | 9.47 | 32280 | 27 | 9.41 | 660 | 94 | 9.20 |
| 21320 | 16 | 9.00 | 25060 | 19 | 8.79 | 28200 | 24 | 8.38 |
| 11785 | 71 | 8.34 | 62400 | 165 | 8.22 | 5511 | 98 | 7.17 |
| 10240 | 77 | 7.02 | 6809 | 111 | 6.77 | 96845 | 140 | 5.40 |
| AVERAGE: | | 38.17 | | | | | | |

Table 3.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 21080 | 14 | 0.35 | 33634 | 141 | 0.36 | 10242 | 79 | 0.42 |
| 11766 | 70 | 0.42 | 10244 | 81 | 0.43 | 10238 | 73 | 0.43 |
| 12100 | 5 | 0.45 | 33514 | 144 | 0.46 | 33511 | 142 | 0.47 |
| 10240 | 77 | 0.48 | 16160 | 9 | 0.48 | 55080 | 55 | 0.48 |
| 96845 | 140 | 0.50 | 10236 | 69 | 0.53 | 33508 | 150 | 0.53 |
| 35060 | 34 | 0.53 | 53101 | 163 | 0.54 | 96612 | 131 | 0.54 |
| 20080 | 13 | 0.54 | 660 | 94 | 0.55 | 10245 | 82 | 0.55 |
| 28200 | 24 | 0.56 | 5409 | 96 | 0.56 | 6809 | 111 | 0.56 |
| 14060 | 7 | 0.56 | 96723 | 135 | 0.57 | 25060 | 19 | 0.57 |
| 36200 | 37 | 0.57 | 575 | 89 | 0.57 | 17680 | 11 | 0.57 |
| 42800 | 154 | 0.57 | 96416 | 119 | 0.57 | 21180 | 15 | 0.57 |
| 24300 | 18 | 0.57 | 6507 | 101 | 0.57 | 96630 | 132 | 0.57 |
| 22502 | 145 | 0.58 | 35140 | 35 | 0.58 | 59180 | 63 | 0.58 |
| 58160 | 61 | 0.58 | 96807 | 138 | 0.58 | 51303 | 159 | 0.58 |
| 10246 | 83 | 0.58 | 52140 | 51 | 0.59 | 11080 | 2 | 0.59 |
| 49260 | 48 | 0.59 | 49380 | 49 | 0.59 | 11120 | 3 | 0.59 |
| 650 | 93 | 0.59 | 10237 | 72 | 0.59 | 10234 | 65 | 0.60 |
| 21320 | 16 | 0.60 | 566 | 88 | 0.60 | 34180 | 33 | 0.60 |
| 96569 | 130 | 0.60 | 42504 | 153 | 0.60 | 96829 | 139 | 0.60 |
| 95418 | 113 | 0.60 | 96515 | 123 | 0.61 | 24421 | 148 | 0.61 |
| 43406 | 157 | 0.61 | 10235 | 66 | 0.61 | 33060 | 28 | 0.61 |
| 580 | 90 | 0.61 | 96520 | 125 | 0.61 | 23100 | 17 | 0.61 |
| 26040 | 21 | 0.62 | 43207 | 156 | 0.62 | 6707 | 110 | 0.62 |
| 44121 | 158 | 0.62 | 59040 | 62 | 0.62 | 23703 | 147 | 0.62 |
| 42303 | 152 | 0.62 | 34302 | 151 | 0.63 | 56200 | 59 | 0.63 |
| 32280 | 27 | 0.63 | 32140 | 26 | 0.63 | 96743 | 137 | 0.63 |
| 36160 | 36 | 0.63 | 15140 | 8 | 0.63 | 49120 | 46 | 0.64 |
| 33412 | 149 | 0.64 | 96519 | 124 | 0.64 | 12180 | 6 | 0.64 |
| 95409 | 112 | 0.64 | 11787 | 74 | 0.64 | 54380 | 54 | 0.64 |
| 95510 | 114 | 0.64 | 27080 | 23 | 0.64 | 51705 | 160 | 0.64 |
| 46200 | 44 | 0.64 | 6618 | 105 | 0.65 | 96537 | 127 | 0.65 |
| 53220 | 52 | 0.65 | 37060 | 39 | 0.65 | 34080 | 31 | 0.65 |
| 10239 | 76 | 0.65 | 12040 | 4 | 0.65 | 600 | 91 | 0.65 |
| 10247 | 85 | 0.65 | 96511 | 121 | 0.66 | 625 | 92 | 0.66 |
| 48120 | 45 | 0.66 | 25140 | 20 | 0.66 | 96512 | 122 | 0.66 |
| 52205 | 161 | 0.66 | 6513 | 102 | 0.66 | 10233 | 64 | 0.66 |
| 96552 | 129 | 0.66 | 96426 | 120 | 0.66 | 96410 | 118 | 0.66 |
| 11785 | 71 | 0.66 | 37120 | 40 | 0.66 | 10248 | 86 | 0.66 |
| 5608 | 99 | 0.66 | 33160 | 29 | 0.66 | 49160 | 47 | 0.66 |
| 11779 | 68 | 0.67 | 37040 | 38 | 0.67 | 5508 | 97 | 0.67 |
| 11768 | 84 | 0.67 | 11782 | 75 | 0.67 | 17540 | 10 | 0.67 |
| 6628 | 106 | 0.67 | 55180 | 56 | 0.67 | 23201 | 146 | 0.67 |
| 11774 | 67 | 0.67 | 34040 | 30 | 0.67 | 37260 | 41 | 0.67 |
| 30500 | 25 | 0.68 | 56120 | 58 | 0.68 | 56060 | 57 | 0.68 |
| 57120 | 60 | 0.68 | 37320 | 42 | 0.68 | 96547 | 128 | 0.68 |
| 96645 | 134 | 0.68 | 6518 | 103 | 0.68 | 33631 | 143 | 0.68 |
| 46020 | 43 | 0.69 | 18040 | 12 | 0.69 | 5511 | 98 | 0.69 |
| 27040 | 22 | 0.69 | 52510 | 162 | 0.69 | 61709 | 164 | 0.69 |
| 540 | 87 | 0.69 | 96404 | 115 | 0.69 | 96641 | 133 | 0.69 |
| 690 | 95 | 0.69 | 6605 | 104 | 0.70 | 34140 | 32 | 0.70 |
| 43128 | 155 | 0.70 | 62400 | 165 | 0.70 | 6651 | 108 | 0.70 |
| 6632 | 107 | 0.70 | 96523 | 126 | 0.71 | 54200 | 53 | 0.72 |
| 6702 | 109 | 0.72 | 51060 | 50 | 0.72 | 10241 | 78 | 0.72 |
| 10243 | 80 | 0.73 | 11020 | 1 | 0.74 | 6403 | 100 | 0.74 |
| 96732 | 136 | 0.74 | 96407 | 116 | 0.75 | 96408 | 117 | 0.80 |
| AVERAGE: | | 0.62 | | | | | | |

Table 3.5c. Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| index | lambda(x) | fi(y) | h | Station |
|-------|-------------|-------------|--------|---------|
| 1 | 20.14361112 | 49.26305557 | 1007.0 | 11020 |
| 2 | 20.38500002 | 49.29833335 | 723.0 | 11080 |
| 3 | 20.42666669 | 49.39166669 | 465.0 | 11120 |
| 4 | 20.24555557 | 49.06888889 | 694.0 | 12040 |
| 5 | 20.21500001 | 49.19527779 | 2635.0 | 12100 |
| 6 | 20.43944447 | 49.12972223 | 626.0 | 12180 |
| 7 | 17.12833334 | 48.71500004 | 204.0 | 14060 |
| 8 | 17.40500002 | 48.68944448 | 232.0 | 15140 |
| 9 | 17.03277778 | 48.45194447 | 165.0 | 16160 |
| 10 | 17.60611114 | 47.99694450 | 116.0 | 17540 |
| 11 | 17.86916671 | 48.06638889 | 111.0 | 17680 |
| 12 | 17.27472224 | 48.20000001 | 124.0 | 18040 |
| 13 | 20.06333334 | 49.11944445 | 1322.0 | 20080 |
| 14 | 19.59222225 | 48.94388894 | 2005.0 | 21080 |
| 15 | 19.56500003 | 49.21888890 | 808.0 | 21180 |
| 16 | 19.40888891 | 49.10472223 | 517.0 | 21320 |
| 17 | 19.61138892 | 49.36083335 | 608.0 | 23100 |
| 18 | 18.91861116 | 49.10916667 | 502.0 | 24300 |
| 19 | 18.48611114 | 49.37250002 | 574.0 | 25060 |
| 20 | 18.89944449 | 49.49583336 | 540.0 | 25140 |
| 21 | 18.61777781 | 49.23194446 | 309.0 | 26040 |
| 22 | 18.31805557 | 49.06611111 | 254.0 | 27040 |
| 23 | 18.20027779 | 49.14333334 | 508.0 | 27080 |
| 24 | 17.83277782 | 48.61305559 | 163.0 | 28200 |
| 25 | 18.25805557 | 48.66916670 | 187.0 | 30500 |
| 26 | 18.31444446 | 48.46611113 | 329.0 | 32140 |
| 27 | 18.33916668 | 48.10750001 | 140.0 | 32280 |
| 28 | 20.02166667 | 48.86666671 | 764.0 | 33060 |
| 29 | 19.80222226 | 48.75500004 | 618.0 | 33160 |
| 30 | 19.63833337 | 48.86000004 | 634.0 | 34040 |
| 31 | 19.38583335 | 48.79111115 | 406.0 | 34080 |
| 32 | 19.23500001 | 48.71027781 | 459.0 | 34140 |
| 33 | 19.17861112 | 48.86194449 | 688.0 | 34180 |
| 34 | 19.59166670 | 48.56500003 | 825.0 | 35060 |
| 35 | 19.32194446 | 48.54416669 | 368.0 | 35140 |
| 36 | 18.78305560 | 48.65916670 | 422.0 | 36160 |
| 37 | 18.87222227 | 48.52916669 | 368.0 | 36200 |
| 38 | 18.63500003 | 48.12555556 | 148.0 | 37040 |
| 39 | 18.72722226 | 48.35472224 | 345.0 | 37060 |
| 40 | 18.74083337 | 48.26333335 | 213.0 | 37120 |
| 41 | 18.51333336 | 48.00416667 | 154.0 | 37260 |
| 42 | 18.39722224 | 47.93055560 | 132.0 | 37320 |
| 43 | 22.11666667 | 48.61888892 | 105.0 | 46020 |
| 44 | 21.94527783 | 48.74000004 | 110.0 | 46200 |
| 45 | 21.65000003 | 49.21555557 | 216.0 | 48120 |
| 46 | 21.27388890 | 49.28944446 | 305.0 | 49120 |
| 47 | 21.31277779 | 49.37055557 | 325.0 | 49160 |
| 48 | 21.42083336 | 49.11138889 | 205.0 | 49260 |
| 49 | 21.62444448 | 48.90833338 | 140.0 | 49380 |
| 50 | 21.81944449 | 48.42111113 | 100.0 | 51060 |
| 51 | 20.53750003 | 48.65305559 | 311.0 | 52140 |
| 52 | 20.09361112 | 48.59277781 | 311.0 | 53220 |
| 53 | 20.01055556 | 48.37388891 | 215.0 | 54200 |
| 54 | 20.28444446 | 48.30861113 | 164.0 | 54380 |
| 55 | 21.00166667 | 48.60444448 | 218.0 | 55080 |
| 56 | 20.52083336 | 48.55388892 | 520.0 | 55180 |
| 57 | 20.31277779 | 48.98861116 | 607.0 | 56060 |
| 58 | 20.55833336 | 48.94305560 | 456.0 | 56120 |
| 59 | 20.80416671 | 48.94388894 | 380.0 | 56200 |
| 60 | 20.67777781 | 48.79722226 | 533.0 | 57120 |
| 61 | 21.21944446 | 48.85861116 | 282.0 | 58160 |
| 62 | 20.86111116 | 49.14694445 | 443.0 | 59040 |
| 63 | 21.26833335 | 49.17388890 | 365.0 | 59180 |
| 64 | 17.46111113 | 48.94666672 | 211.0 | 10233 |
| 65 | 17.33916668 | 49.08750000 | 255.0 | 10234 |
| 66 | 17.80333338 | 49.15500001 | 348.0 | 10235 |

| | | | | |
|-----|-------------|-------------|--------|-------|
| 67 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 68 | 17.70777781 | 48.90277782 | 383.0 | 11779 |
| 69 | 18.38055558 | 49.42222224 | 770.0 | 10236 |
| 70 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 71 | 18.24055557 | 49.54111114 | 436.0 | 11785 |
| 72 | 18.25416668 | 49.94583338 | 220.0 | 10237 |
| 73 | 18.63750003 | 49.52638892 | 594.0 | 10238 |
| 74 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 75 | 18.12166667 | 49.69833337 | 250.0 | 11782 |
| 76 | 17.83527782 | 49.66944448 | 290.0 | 10239 |
| 77 | 17.91388894 | 49.81777782 | 485.0 | 10240 |
| 78 | 18.61666670 | 49.74250004 | 282.0 | 10241 |
| 79 | 18.64944448 | 49.62583337 | 500.0 | 10242 |
| 80 | 18.10694445 | 49.56166670 | 340.0 | 10243 |
| 81 | 17.07111111 | 49.70444448 | 234.0 | 10244 |
| 82 | 17.27916668 | 49.43194447 | 199.0 | 10245 |
| 83 | 18.08944445 | 49.19250001 | 480.0 | 10246 |
| 84 | 17.70583337 | 49.55194447 | 241.0 | 11768 |
| 85 | 17.81388893 | 49.41111113 | 405.0 | 10247 |
| 86 | 18.10638889 | 49.41638891 | 458.0 | 10248 |
| 87 | 18.19166668 | 50.06166667 | 206.0 | 540 |
| 88 | 19.80194449 | 50.07194445 | 237.0 | 566 |
| 89 | 20.98444450 | 50.01888889 | 209.0 | 575 |
| 90 | 22.02916667 | 50.11527778 | 212.0 | 580 |
| 91 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 92 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 93 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 94 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 95 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 96 | 18.92027783 | 49.99638894 | 270.0 | 5409 |
| 97 | 19.09527778 | 50.08500000 | 255.0 | 5508 |
| 98 | 19.95861116 | 50.06416667 | 206.0 | 5511 |
| 99 | 20.25638890 | 50.09388889 | 202.0 | 5608 |
| 100 | 18.64916670 | 49.75500004 | 300.0 | 6403 |
| 101 | 19.68805559 | 49.72583337 | 360.0 | 6507 |
| 102 | 19.51888892 | 49.61166670 | 697.0 | 6513 |
| 103 | 19.69583337 | 49.47194447 | 615.0 | 6518 |
| 104 | 20.41833336 | 49.69361115 | 515.0 | 6605 |
| 105 | 20.43166669 | 49.44555558 | 445.0 | 6618 |
| 106 | 20.88638894 | 49.34972224 | 445.0 | 6628 |
| 107 | 20.00583333 | 49.24416668 | 1520.0 | 6632 |
| 108 | 20.07083334 | 49.87777782 | 306.0 | 6651 |
| 109 | 21.29583335 | 49.73527782 | 285.0 | 6702 |
| 110 | 21.17250001 | 49.43805558 | 519.0 | 6707 |
| 111 | 22.06333334 | 49.33916668 | 470.0 | 6809 |
| 112 | 18.42805558 | 50.06111111 | 290.0 | 95409 |
| 113 | 17.98166672 | 50.15333334 | 230.0 | 95418 |
| 114 | 19.38750002 | 50.14055556 | 295.0 | 95510 |
| 115 | 18.93833338 | 49.58527781 | 725.0 | 96404 |
| 116 | 18.87805560 | 49.62833337 | 480.0 | 96407 |
| 117 | 18.96833338 | 49.64527781 | 685.0 | 96408 |
| 118 | 18.85222227 | 49.71555559 | 650.0 | 96410 |
| 119 | 18.79500004 | 49.79888893 | 290.0 | 96416 |
| 120 | 18.98138894 | 49.94166672 | 250.0 | 96426 |
| 121 | 19.00888889 | 49.42583336 | 710.0 | 96511 |
| 122 | 19.70611115 | 49.42555558 | 680.0 | 96512 |
| 123 | 19.10555556 | 49.50611114 | 490.0 | 96515 |
| 124 | 19.81444449 | 49.54583336 | 795.0 | 96519 |
| 125 | 19.18666668 | 49.56194447 | 570.0 | 96520 |
| 126 | 19.34833335 | 49.56861114 | 650.0 | 96523 |
| 127 | 19.40527780 | 49.65583337 | 615.0 | 96537 |
| 128 | 18.99444450 | 49.70305559 | 575.0 | 96547 |
| 129 | 19.25555557 | 49.74027782 | 410.0 | 96552 |
| 130 | 19.51277780 | 49.87666671 | 260.0 | 96569 |
| 131 | 20.02638889 | 49.42472224 | 655.0 | 96612 |
| 132 | 20.21500001 | 49.65250003 | 660.0 | 96630 |
| 133 | 20.07444445 | 49.75027782 | 460.0 | 96641 |
| 134 | 20.41583335 | 49.78527782 | 545.0 | 96645 |
| 135 | 21.17111112 | 49.65527781 | 290.0 | 96723 |
| 136 | 21.24638890 | 49.81250004 | 280.0 | 96732 |
| 137 | 21.30833335 | 49.98694450 | 210.0 | 96743 |

| | | | | |
|-----|-------------|-------------|--------|-------|
| 138 | 22.69305559 | 49.24777779 | 615.0 | 96807 |
| 139 | 22.22083334 | 49.69111115 | 275.0 | 96829 |
| 140 | 22.40722224 | 49.98527783 | 220.0 | 96845 |
| 141 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 142 | 23.00000000 | 49.20000001 | 594.0 | 33511 |
| 143 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 144 | 22.50000003 | 48.90000005 | 205.0 | 33514 |
| 145 | 17.20000001 | 48.00000000 | 131.0 | 22502 |
| 146 | 17.26722224 | 47.88972227 | 121.0 | 23201 |
| 147 | 17.67472226 | 47.71000004 | 117.0 | 23703 |
| 148 | 17.80000004 | 47.61666670 | 133.0 | 24421 |
| 149 | 18.86666671 | 47.86666671 | 232.0 | 33412 |
| 150 | 18.16666668 | 47.73333337 | 113.0 | 33508 |
| 151 | 18.63333337 | 47.60000003 | 191.0 | 34302 |
| 152 | 19.53333336 | 48.18333334 | 204.0 | 42303 |
| 153 | 19.05000000 | 48.05000000 | 155.0 | 42504 |
| 154 | 19.86666671 | 48.13333334 | 451.0 | 42800 |
| 155 | 19.05000000 | 47.90000005 | 237.0 | 43128 |
| 156 | 19.35000002 | 47.98333338 | 193.0 | 43207 |
| 157 | 19.78333337 | 47.98333338 | 186.0 | 43406 |
| 158 | 19.02805556 | 47.51111114 | 153.0 | 44121 |
| 159 | 20.66666670 | 48.50000003 | 156.0 | 51303 |
| 160 | 20.53611114 | 48.49527780 | 309.0 | 51705 |
| 161 | 20.46666669 | 48.18333334 | 215.0 | 52205 |
| 162 | 20.16666668 | 48.06666667 | 196.0 | 52510 |
| 163 | 20.01666667 | 47.86666671 | 1011.0 | 53101 |
| 164 | 21.65888892 | 48.38083335 | 100.0 | 61709 |
| 165 | 21.80000004 | 48.31666668 | 107.0 | 62400 |

Table 3.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.01): 31.00

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 71 | 71 | 169.93 | 50 | 50 | 152.69 | 40 | 40 | 148.14 |
| 31 | 31 | 126.11 | 43 | 43 | 105.98 | 28 | 28 | 91.94 |
| 56 | 56 | 88.23 | 29 | 29 | 85.61 | 14 | 14 | 75.00 |
| 23 | 23 | 69.91 | 35 | 35 | 66.74 | 51 | 51 | 66.69 |
| 34 | 34 | 65.24 | 61 | 61 | 63.30 | 39 | 39 | 61.28 |
| 48 | 48 | 61.25 | 7 | 7 | 59.50 | 17 | 17 | 57.32 |
| 57 | 57 | 54.69 | 26 | 26 | 50.89 | 18 | 18 | 50.40 |
| 72 | 72 | 49.27 | 86 | 86 | 47.84 | 65 | 65 | 45.65 |
| 32 | 32 | 41.55 | 88 | 88 | 41.52 | 16 | 16 | 41.44 |
| 77 | 77 | 40.06 | 22 | 22 | 39.80 | 11 | 11 | 39.76 |
| 46 | 46 | 38.74 | 68 | 68 | 37.88 | 5 | 5 | 37.26 |
| 6 | 6 | 37.17 | 80 | 80 | 36.21 | 38 | 38 | 33.98 |
| 47 | 47 | 33.21 | 64 | 64 | 32.89 | 74 | 74 | 32.02 |
| 99 | 99 | 30.76 | 73 | 73 | 30.52 | 70 | 70 | 29.57 |
| 89 | 89 | 29.22 | 91 | 91 | 29.20 | 67 | 67 | 29.17 |
| 44 | 44 | 28.97 | 59 | 59 | 28.52 | 30 | 30 | 28.14 |
| 2 | 2 | 27.92 | 4 | 4 | 27.05 | 33 | 33 | 26.89 |
| 84 | 84 | 26.48 | 78 | 78 | 26.34 | 1 | 1 | 25.76 |
| 87 | 87 | 24.32 | 100 | 100 | 24.15 | 94 | 94 | 23.09 |
| 90 | 90 | 22.45 | 75 | 75 | 22.24 | 10 | 10 | 21.44 |
| 102 | 102 | 20.87 | 66 | 66 | 20.83 | 15 | 15 | 20.67 |
| 41 | 41 | 20.59 | 52 | 52 | 19.96 | 93 | 93 | 19.00 |
| 36 | 36 | 18.96 | 97 | 97 | 17.50 | 3 | 3 | 17.21 |
| 58 | 58 | 16.74 | 95 | 95 | 15.97 | 96 | 96 | 15.25 |
| 13 | 13 | 15.23 | 81 | 81 | 15.04 | 49 | 49 | 14.86 |
| 55 | 55 | 14.06 | 62 | 62 | 13.91 | 83 | 83 | 13.79 |
| 92 | 92 | 13.76 | 101 | 101 | 13.31 | 53 | 53 | 12.81 |
| 37 | 37 | 12.76 | 21 | 21 | 12.71 | 20 | 20 | 12.40 |
| 98 | 98 | 12.17 | 9 | 9 | 12.09 | 63 | 63 | 12.07 |
| 42 | 42 | 11.03 | 60 | 60 | 10.99 | 82 | 82 | 10.93 |
| 19 | 19 | 10.77 | 45 | 45 | 10.37 | 76 | 76 | 10.36 |
| 85 | 85 | 10.11 | 27 | 27 | 9.69 | 54 | 54 | 9.05 |
| 24 | 24 | 9.05 | 8 | 8 | 8.68 | 79 | 79 | 8.31 |
| 12 | 12 | 8.31 | 25 | 25 | 8.20 | 69 | 69 | 7.63 |
| AVERAGE: | | 35.37 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 75 | 75 | 313.30 | 50 | 50 | 221.96 | 31 | 31 | 207.28 |
| 71 | 71 | 198.45 | 77 | 77 | 133.20 | 40 | 40 | 127.47 |
| 28 | 28 | 113.47 | 73 | 73 | 100.83 | 7 | 7 | 96.16 |
| 102 | 102 | 93.59 | 56 | 56 | 92.86 | 86 | 86 | 80.90 |
| 14 | 14 | 77.47 | 43 | 43 | 75.98 | 99 | 99 | 74.46 |
| 6 | 6 | 72.44 | 39 | 39 | 71.04 | 23 | 23 | 66.23 |
| 18 | 18 | 65.65 | 51 | 51 | 65.46 | 74 | 74 | 65.29 |
| 61 | 61 | 64.56 | 34 | 34 | 63.94 | 65 | 65 | 63.26 |
| 48 | 48 | 62.12 | 22 | 22 | 62.11 | 1 | 1 | 60.54 |
| 29 | 29 | 60.41 | 26 | 26 | 60.18 | 17 | 17 | 55.29 |
| 16 | 16 | 54.11 | 57 | 57 | 53.66 | 38 | 38 | 53.58 |
| 47 | 47 | 50.65 | 32 | 32 | 47.33 | 88 | 88 | 47.22 |
| 5 | 5 | 43.75 | 46 | 46 | 43.70 | 80 | 80 | 43.44 |
| 72 | 72 | 43.18 | 11 | 11 | 41.58 | 2 | 2 | 39.89 |

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|-----------------------------|-----|---------------------------|----|-------------------------|-------|-------------------|----|-------|
| 84 | 84 | 39.55 | 68 | 68 | 38.47 | 67 | 67 | 35.57 |
| 70 | 70 | 35.05 | 64 | 64 | 35.01 | 87 | 87 | 33.18 |
| 59 | 59 | 32.80 | 33 | 33 | 31.52 | 30 | 30 | 31.11 |
| 35 | 35 | 29.40 | 78 | 78 | 28.02 | 44 | 44 | 27.47 |
| 4 | 4 | 27.37 | 89 | 89 | 26.97 | 49 | 49 | 26.92 |
| 100 | 100 | 26.42 | 91 | 91 | 26.32 | 19 | 19 | 25.79 |
| 101 | 101 | 25.76 | 90 | 90 | 24.87 | 13 | 13 | 23.65 |
| 66 | 66 | 23.41 | 3 | 3 | 22.87 | 15 | 15 | 22.47 |
| 52 | 52 | 22.03 | 81 | 81 | 21.76 | 93 | 93 | 20.74 |
| 95 | 95 | 20.34 | 94 | 94 | 19.43 | 55 | 55 | 19.19 |
| 97 | 97 | 18.39 | 10 | 10 | 18.39 | 42 | 42 | 17.42 |
| 58 | 58 | 17.31 | 92 | 92 | 16.46 | 96 | 96 | 15.08 |
| 36 | 36 | 14.75 | 79 | 79 | 14.61 | 62 | 62 | 14.11 |
| 21 | 21 | 13.46 | 37 | 37 | 13.35 | 60 | 60 | 13.08 |
| 45 | 45 | 13.00 | 98 | 98 | 12.73 | 20 | 20 | 12.31 |
| 53 | 53 | 12.15 | 27 | 27 | 11.85 | 76 | 76 | 10.75 |
| 9 | 9 | 10.70 | 24 | 24 | 10.61 | 41 | 41 | 10.29 |
| 85 | 85 | 10.28 | 83 | 83 | 10.04 | 82 | 82 | 9.75 |
| 63 | 63 | 9.58 | 54 | 54 | 9.45 | 8 | 8 | 9.20 |
| 12 | 12 | 7.11 | 69 | 69 | 7.02 | 25 | 25 | 6.95 |
| AVERAGE: | | 46.29 | | | | | | |

Table 3.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 62 | 62 | 0.32 | 80 | 80 | 0.39 | 71 | 71 | 0.42 |
| 65 | 65 | 0.43 | 77 | 77 | 0.45 | 60 | 60 | 0.46 |
| 69 | 69 | 0.48 | 58 | 58 | 0.50 | 61 | 61 | 0.52 |
| 82 | 82 | 0.53 | 59 | 59 | 0.53 | 68 | 68 | 0.54 |
| 97 | 97 | 0.54 | 45 | 45 | 0.54 | 79 | 79 | 0.54 |
| 8 | 8 | 0.55 | 102 | 102 | 0.56 | 10 | 10 | 0.56 |
| 54 | 54 | 0.56 | 25 | 25 | 0.56 | 49 | 49 | 0.57 |
| 87 | 87 | 0.57 | 3 | 3 | 0.57 | 33 | 33 | 0.57 |
| 81 | 81 | 0.57 | 84 | 84 | 0.57 | 15 | 15 | 0.57 |
| 46 | 46 | 0.57 | 55 | 55 | 0.58 | 52 | 52 | 0.58 |
| 85 | 85 | 0.58 | 74 | 74 | 0.59 | 96 | 96 | 0.59 |
| 75 | 75 | 0.59 | 7 | 7 | 0.59 | 64 | 64 | 0.59 |
| 2 | 2 | 0.60 | 100 | 100 | 0.60 | 44 | 44 | 0.60 |
| 53 | 53 | 0.60 | 91 | 91 | 0.60 | 27 | 27 | 0.60 |
| 37 | 37 | 0.61 | 88 | 88 | 0.61 | 4 | 4 | 0.61 |
| 39 | 39 | 0.61 | 83 | 83 | 0.61 | 24 | 24 | 0.62 |
| 101 | 101 | 0.62 | 57 | 57 | 0.63 | 51 | 51 | 0.63 |
| 56 | 56 | 0.64 | 94 | 94 | 0.64 | 38 | 38 | 0.64 |
| 78 | 78 | 0.64 | 26 | 26 | 0.64 | 66 | 66 | 0.64 |
| 28 | 28 | 0.64 | 19 | 19 | 0.65 | 89 | 89 | 0.65 |
| 41 | 41 | 0.65 | 76 | 76 | 0.65 | 5 | 5 | 0.65 |
| 90 | 90 | 0.66 | 35 | 35 | 0.66 | 6 | 6 | 0.66 |
| 93 | 93 | 0.66 | 86 | 86 | 0.66 | 36 | 36 | 0.66 |
| 92 | 92 | 0.66 | 16 | 16 | 0.66 | 43 | 43 | 0.66 |
| 34 | 34 | 0.66 | 32 | 32 | 0.66 | 63 | 63 | 0.66 |
| 13 | 13 | 0.66 | 95 | 95 | 0.66 | 11 | 11 | 0.67 |
| 67 | 67 | 0.67 | 20 | 20 | 0.67 | 99 | 99 | 0.67 |
| 98 | 98 | 0.68 | 42 | 42 | 0.68 | 48 | 48 | 0.68 |
| 17 | 17 | 0.68 | 12 | 12 | 0.69 | 1 | 1 | 0.69 |
| 29 | 29 | 0.69 | 47 | 47 | 0.69 | 9 | 9 | 0.69 |
| 18 | 18 | 0.70 | 22 | 22 | 0.70 | 21 | 21 | 0.70 |
| 72 | 72 | 0.70 | 40 | 40 | 0.71 | 23 | 23 | 0.72 |
| 70 | 70 | 0.72 | 73 | 73 | 0.74 | 14 | 14 | 0.74 |
| 50 | 50 | 0.74 | 30 | 30 | 0.75 | 31 | 31 | 0.80 |
| AVERAGE: | | 0.62 | | | | | | |

Table 3.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda(x) | fi(y) | h |
|-------|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 18.92027783 | 49.99638894 | 270.0 |
| 11 | 19.09527778 | 50.08500000 | 255.0 |
| 12 | 19.95861116 | 50.06416667 | 206.0 |
| 13 | 20.25638890 | 50.09388889 | 202.0 |
| 14 | 18.64916670 | 49.75500004 | 300.0 |
| 15 | 19.68805559 | 49.72583337 | 360.0 |
| 16 | 19.51888892 | 49.61166670 | 697.0 |
| 17 | 19.69583337 | 49.47194447 | 615.0 |
| 18 | 20.41833336 | 49.69361115 | 515.0 |
| 19 | 20.43166669 | 49.44555558 | 445.0 |
| 20 | 20.88638894 | 49.34972224 | 445.0 |
| 21 | 20.00583333 | 49.24416668 | 1520.0 |
| 22 | 20.07083334 | 49.87777782 | 306.0 |
| 23 | 21.29583335 | 49.73527782 | 285.0 |
| 24 | 21.17250001 | 49.43805558 | 519.0 |
| 25 | 22.06333334 | 49.33916668 | 470.0 |
| 26 | 18.42805558 | 50.06111111 | 290.0 |
| 27 | 17.98166672 | 50.15333334 | 230.0 |
| 28 | 19.38750002 | 50.14055556 | 295.0 |
| 29 | 18.93833338 | 49.58527781 | 725.0 |
| 30 | 18.87805560 | 49.62833337 | 480.0 |
| 31 | 18.96833338 | 49.64527781 | 685.0 |
| 32 | 18.85222227 | 49.71555559 | 650.0 |
| 33 | 18.79500004 | 49.79888893 | 290.0 |
| 34 | 18.98138894 | 49.94166672 | 250.0 |
| 35 | 19.00888889 | 49.42583336 | 710.0 |
| 36 | 19.70611115 | 49.42555558 | 680.0 |
| 37 | 19.10555556 | 49.50611114 | 490.0 |
| 38 | 19.81444449 | 49.54583336 | 795.0 |
| 39 | 19.18666668 | 49.56194447 | 570.0 |
| 40 | 19.34833335 | 49.56861114 | 650.0 |
| 41 | 19.40527780 | 49.65583337 | 615.0 |
| 42 | 18.99444450 | 49.70305559 | 575.0 |
| 43 | 19.25555557 | 49.74027782 | 410.0 |
| 44 | 19.51277780 | 49.87666671 | 260.0 |
| 45 | 20.02638889 | 49.42472224 | 655.0 |
| 46 | 20.21500001 | 49.65250003 | 660.0 |
| 47 | 20.07444445 | 49.75027782 | 460.0 |
| 48 | 20.41583335 | 49.78527782 | 545.0 |
| 49 | 21.17111112 | 49.65527781 | 290.0 |
| 50 | 21.24638890 | 49.81250004 | 280.0 |
| 51 | 21.30833335 | 49.98694450 | 210.0 |
| 52 | 22.69305559 | 49.24777779 | 615.0 |
| 53 | 22.22083334 | 49.69111115 | 275.0 |
| 54 | 22.40722224 | 49.98527783 | 220.0 |
| 55 | 23.63333337 | 50.25000001 | 252.0 |
| 56 | 23.16666668 | 49.80000004 | 232.0 |
| 57 | 23.38333335 | 49.95000005 | 245.0 |
| 58 | 23.56694447 | 49.36222224 | 275.0 |
| 59 | 23.03333334 | 49.15000001 | 594.0 |
| 60 | 22.46666669 | 48.90000005 | 205.0 |
| 61 | 18.38000002 | 49.42000002 | 770.0 |
| 62 | 17.54000003 | 49.78000004 | 749.0 |
| 63 | 18.24000001 | 49.54000003 | 436.0 |
| 64 | 18.25000001 | 49.95000005 | 220.0 |
| 65 | 18.64000003 | 49.53000003 | 594.0 |
| 66 | 18.45000002 | 49.55000003 | 1322.0 |

| | | | |
|-----|-------------|-------------|--------|
| 67 | 18.12000001 | 49.70000004 | 250.0 |
| 68 | 17.84000004 | 49.67000003 | 290.0 |
| 69 | 17.91000005 | 49.82000004 | 485.0 |
| 70 | 18.62000003 | 49.74000004 | 282.0 |
| 71 | 18.65000003 | 49.63000003 | 500.0 |
| 72 | 18.11000001 | 49.56000003 | 340.0 |
| 73 | 20.14361112 | 49.26305557 | 1007.0 |
| 74 | 20.38500002 | 49.29833335 | 723.0 |
| 75 | 20.42666669 | 49.39166669 | 465.0 |
| 76 | 20.24555557 | 49.06888889 | 694.0 |
| 77 | 20.21500001 | 49.19527779 | 2635.0 |
| 78 | 20.43944447 | 49.12972223 | 626.0 |
| 79 | 20.06333334 | 49.11944445 | 1322.0 |
| 80 | 19.59222225 | 48.94388894 | 2005.0 |
| 81 | 19.56500003 | 49.21888890 | 808.0 |
| 82 | 19.40888891 | 49.10472223 | 517.0 |
| 83 | 19.61138892 | 49.36083335 | 608.0 |
| 84 | 18.91861116 | 49.10916667 | 502.0 |
| 85 | 18.48611114 | 49.37250002 | 574.0 |
| 86 | 18.89944449 | 49.49583336 | 540.0 |
| 87 | 18.61777781 | 49.23194446 | 309.0 |
| 88 | 20.02166667 | 48.86666671 | 764.0 |
| 89 | 19.80222226 | 48.75500004 | 618.0 |
| 90 | 19.63833337 | 48.86000004 | 634.0 |
| 91 | 22.11666667 | 48.61888892 | 105.0 |
| 92 | 21.94527783 | 48.74000004 | 110.0 |
| 93 | 21.65000003 | 49.21555557 | 216.0 |
| 94 | 21.27388890 | 49.28944446 | 305.0 |
| 95 | 21.31277779 | 49.37055557 | 325.0 |
| 96 | 21.42083336 | 49.11138889 | 205.0 |
| 97 | 21.62444448 | 48.90833338 | 140.0 |
| 98 | 20.31277779 | 48.98861116 | 607.0 |
| 99 | 20.55833336 | 48.94305560 | 456.0 |
| 100 | 20.80416671 | 48.94388894 | 380.0 |
| 101 | 20.86111116 | 49.14694445 | 443.0 |
| 102 | 21.26833335 | 49.17388890 | 365.0 |

Table 3.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.01): 31.00

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 16 | 16 | 169.93 | 43 | 43 | 126.11 | 22 | 22 | 114.22 |
| 41 | 41 | 85.61 | 51 | 51 | 75.00 | 6 | 6 | 67.97 |
| 47 | 47 | 66.74 | 46 | 46 | 65.24 | 49 | 49 | 60.25 |
| 5 | 5 | 51.61 | 39 | 39 | 50.89 | 29 | 29 | 47.84 |
| 36 | 36 | 46.36 | 10 | 10 | 45.65 | 44 | 44 | 41.55 |
| 17 | 17 | 34.75 | 38 | 38 | 34.16 | 9 | 9 | 32.89 |
| 23 | 23 | 32.61 | 20 | 20 | 30.98 | 30 | 30 | 29.82 |
| 15 | 15 | 29.57 | 12 | 12 | 29.17 | 42 | 42 | 28.14 |
| 13 | 13 | 27.39 | 45 | 45 | 26.89 | 26 | 26 | 26.45 |
| 35 | 35 | 25.76 | 18 | 18 | 23.02 | 48 | 48 | 23.01 |
| 21 | 21 | 22.79 | 37 | 37 | 21.44 | 11 | 11 | 20.83 |
| 32 | 32 | 20.77 | 27 | 27 | 20.34 | 3 | 3 | 19.60 |
| 1 | 1 | 17.93 | 4 | 4 | 17.55 | 25 | 25 | 16.04 |
| 2 | 2 | 13.83 | 34 | 34 | 13.52 | 8 | 8 | 12.07 |
| 19 | 19 | 11.46 | 31 | 31 | 11.31 | 50 | 50 | 11.03 |
| 40 | 40 | 9.69 | 7 | 7 | 9.52 | 33 | 33 | 9.25 |
| 14 | 14 | 7.63 | 28 | 28 | 5.95 | 24 | 24 | 4.83 |
| AVERAGE: | | 36.21 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 43 | 43 | 207.28 | 16 | 16 | 198.58 | 22 | 22 | 129.21 |
| 29 | 29 | 80.90 | 51 | 51 | 77.42 | 6 | 6 | 68.29 |
| 46 | 46 | 63.94 | 10 | 10 | 63.26 | 32 | 32 | 62.53 |
| 35 | 35 | 60.53 | 41 | 41 | 60.41 | 39 | 39 | 60.19 |
| 44 | 44 | 47.33 | 49 | 49 | 47.15 | 5 | 5 | 46.75 |
| 36 | 36 | 39.93 | 38 | 38 | 39.55 | 15 | 15 | 35.05 |
| 9 | 9 | 35.01 | 12 | 12 | 34.35 | 17 | 17 | 32.72 |
| 45 | 45 | 31.52 | 42 | 42 | 31.11 | 47 | 47 | 29.40 |
| 30 | 30 | 28.33 | 18 | 18 | 28.17 | 20 | 20 | 27.09 |
| 13 | 13 | 26.81 | 26 | 26 | 24.78 | 11 | 11 | 23.41 |
| 48 | 48 | 19.67 | 27 | 27 | 19.40 | 3 | 3 | 19.29 |
| 37 | 37 | 18.39 | 31 | 31 | 17.91 | 25 | 25 | 17.56 |
| 50 | 50 | 17.42 | 2 | 2 | 15.54 | 1 | 1 | 13.49 |
| 23 | 23 | 13.41 | 4 | 4 | 12.81 | 19 | 19 | 12.49 |
| 7 | 7 | 12.37 | 40 | 40 | 11.85 | 24 | 24 | 11.27 |
| 34 | 34 | 11.25 | 21 | 21 | 10.39 | 8 | 8 | 9.65 |
| 28 | 28 | 8.21 | 33 | 33 | 7.99 | 14 | 14 | 7.02 |
| AVERAGE: | | 39.77 | | | | | | |

Table 3.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 24 | 24 | 0.22 | 27 | 27 | 0.39 | 16 | 16 | 0.42 |
| 7 | 7 | 0.42 | 18 | 18 | 0.43 | 10 | 10 | 0.43 |
| 14 | 14 | 0.48 | 6 | 6 | 0.53 | 33 | 33 | 0.54 |
| 19 | 19 | 0.55 | 37 | 37 | 0.56 | 25 | 25 | 0.56 |
| 28 | 28 | 0.57 | 45 | 45 | 0.57 | 20 | 20 | 0.58 |
| 49 | 49 | 0.59 | 9 | 9 | 0.59 | 2 | 2 | 0.60 |
| 40 | 40 | 0.60 | 30 | 30 | 0.61 | 3 | 3 | 0.61 |
| 48 | 48 | 0.61 | 26 | 26 | 0.63 | 39 | 39 | 0.64 |

| CARPATCLIM | | Date | | Version | | Page | | |
|---------------|----|-------------------|----|--------------|------|-----------|----|------|
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| 11 | 11 | 0.64 | 32 | 32 | 0.64 | 38 | 38 | 0.64 |
| 13 | 13 | 0.65 | 36 | 36 | 0.65 | 22 | 22 | 0.65 |
| 34 | 34 | 0.66 | 47 | 47 | 0.66 | 31 | 31 | 0.66 |
| 29 | 29 | 0.66 | 1 | 1 | 0.66 | 46 | 46 | 0.66 |
| 44 | 44 | 0.66 | 8 | 8 | 0.66 | 23 | 23 | 0.66 |
| 21 | 21 | 0.67 | 12 | 12 | 0.67 | 4 | 4 | 0.67 |
| 5 | 5 | 0.68 | 50 | 50 | 0.68 | 35 | 35 | 0.69 |
| 41 | 41 | 0.69 | 15 | 15 | 0.72 | 17 | 17 | 0.73 |
| 51 | 51 | 0.74 | 42 | 42 | 0.75 | 43 | 43 | 0.80 |
| AVERAGE: | | 0.61 | | | | | | |

Table 3.7c. Station parameters of the series system of Czech Republic and near border series from Slovakia, Poland

| index | lambda(x) | fi(y) | h |
|-------|-------------|-------------|--------|
| 1 | 17.46000002 | 48.95000005 | 211.0 |
| 2 | 17.34000002 | 49.09000000 | 255.0 |
| 3 | 17.80000004 | 49.16000001 | 348.0 |
| 4 | 17.57000003 | 49.32000002 | 222.0 |
| 5 | 17.71000004 | 48.90000005 | 383.0 |
| 6 | 18.38000002 | 49.42000002 | 770.0 |
| 7 | 17.54000003 | 49.78000004 | 749.0 |
| 8 | 18.24000001 | 49.54000003 | 436.0 |
| 9 | 18.25000001 | 49.95000005 | 220.0 |
| 10 | 18.64000003 | 49.53000003 | 594.0 |
| 11 | 18.45000002 | 49.55000003 | 1322.0 |
| 12 | 18.12000001 | 49.70000004 | 250.0 |
| 13 | 17.84000004 | 49.67000003 | 290.0 |
| 14 | 17.91000005 | 49.82000004 | 485.0 |
| 15 | 18.62000003 | 49.74000004 | 282.0 |
| 16 | 18.65000003 | 49.63000003 | 500.0 |
| 17 | 18.11000001 | 49.56000003 | 340.0 |
| 18 | 17.07000000 | 49.70000004 | 234.0 |
| 19 | 17.28000001 | 49.43000002 | 199.0 |
| 20 | 18.09000000 | 49.19000001 | 480.0 |
| 21 | 17.71000004 | 49.55000003 | 241.0 |
| 22 | 17.81000004 | 49.41000002 | 405.0 |
| 23 | 18.11000001 | 49.42000002 | 458.0 |
| 24 | 20.14361112 | 49.26305557 | 1007.0 |
| 25 | 17.12833334 | 48.71500004 | 204.0 |
| 26 | 17.40500002 | 48.68944448 | 232.0 |
| 27 | 17.03277778 | 48.45194447 | 165.0 |
| 28 | 18.48611114 | 49.37250002 | 574.0 |
| 29 | 18.89944449 | 49.49583336 | 540.0 |
| 30 | 18.61777781 | 49.23194446 | 309.0 |
| 31 | 18.31805557 | 49.06611111 | 254.0 |
| 32 | 18.20027779 | 49.14333334 | 508.0 |
| 33 | 17.83277782 | 48.61305559 | 163.0 |
| 34 | 18.25805557 | 48.66916670 | 187.0 |
| 35 | 18.19166668 | 50.06166667 | 206.0 |
| 36 | 19.00111111 | 49.80805560 | 398.0 |
| 37 | 18.92027783 | 49.99638894 | 270.0 |
| 38 | 19.09527778 | 50.08500000 | 255.0 |
| 39 | 18.42805558 | 50.06111111 | 290.0 |
| 40 | 17.98166672 | 50.15333334 | 230.0 |
| 41 | 18.93833338 | 49.58527781 | 725.0 |
| 42 | 18.87805560 | 49.62833337 | 480.0 |
| 43 | 18.96833338 | 49.64527781 | 685.0 |
| 44 | 18.85222227 | 49.71555559 | 650.0 |
| 45 | 18.79500004 | 49.79888893 | 290.0 |
| 46 | 18.98138894 | 49.94166672 | 250.0 |
| 47 | 19.00888889 | 49.42583336 | 710.0 |
| 48 | 19.10555556 | 49.50611114 | 490.0 |
| 49 | 19.18666668 | 49.56194447 | 570.0 |
| 50 | 18.99444450 | 49.70305559 | 575.0 |
| 51 | 18.64916670 | 49.75500004 | 300.0 |

Annex 4. Relative Humidity

Table 4.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| kikin | 54 | 101.80 | brati | 63 | 72.96 | arad | 55 | 63.58 |
| palic | 52 | 58.58 | lucen | 65 | 57.79 | 55502 | 33 | 52.99 |
| satu | 59 | 48.50 | 53101 | 30 | 47.93 | orade | 56 | 44.84 |
| sanni | 58 | 42.24 | khust | 61 | 40.99 | 36500 | 18 | 39.82 |
| 46303 | 25 | 38.55 | 53521 | 31 | 37.05 | 56300 | 35 | 34.17 |
| milho | 68 | 34.06 | donji | 47 | 33.69 | 44121 | 22 | 32.29 |
| sacui | 57 | 28.69 | kosic | 67 | 27.53 | hurba | 64 | 27.44 |
| stos | 66 | 25.73 | 26505 | 12 | 25.69 | 15307 | 4 | 25.63 |
| uzhgo | 62 | 25.48 | daruv | 45 | 24.66 | djurd | 46 | 22.78 |
| 16414 | 6 | 22.54 | backi | 51 | 22.41 | 38605 | 19 | 21.09 |
| 44214 | 23 | 20.95 | valpo | 50 | 20.65 | bjelo | 44 | 20.63 |
| 17308 | 7 | 20.49 | 73302 | 43 | 20.09 | 43613 | 21 | 20.04 |
| 54306 | 32 | 19.64 | 28700 | 14 | 19.57 | 14706 | 3 | 19.46 |
| 13703 | 2 | 19.38 | 34211 | 15 | 19.17 | 66519 | 42 | 19.11 |
| 44527 | 24 | 19.00 | 61709 | 39 | 18.96 | 58113 | 37 | 18.61 |
| 51705 | 28 | 18.15 | 27815 | 13 | 18.03 | 58300 | 38 | 17.89 |
| 36100 | 16 | 17.86 | 52819 | 29 | 17.54 | 16601 | 1 | 16.72 |
| 63411 | 40 | 16.09 | 23703 | 10 | 15.58 | 48101 | 27 | 15.54 |
| 36407 | 17 | 15.47 | 47106 | 26 | 15.25 | bereg | 60 | 14.88 |
| 64704 | 41 | 13.55 | osije | 48 | 13.37 | 55706 | 34 | 12.96 |
| slavo | 49 | 12.95 | 25212 | 11 | 12.25 | 57311 | 36 | 11.75 |
| 17809 | 8 | 11.56 | 23201 | 9 | 11.09 | 39113 | 20 | 10.48 |
| 16203 | 5 | 10.20 | sombo | 53 | 8.44 | | | |
| AVERAGE: | | 26.54 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| backi | 51 | 645.66 | bjelo | 44 | 472.96 | valpo | 50 | 425.32 |
| 56300 | 35 | 393.81 | osije | 48 | 376.25 | 25212 | 11 | 323.06 |
| arad | 55 | 246.65 | daruv | 45 | 242.15 | 14706 | 3 | 241.43 |
| 46303 | 25 | 234.29 | 53521 | 31 | 226.92 | kikin | 54 | 192.34 |
| sombo | 53 | 166.64 | donji | 47 | 162.93 | 61709 | 39 | 159.36 |
| 52819 | 29 | 146.81 | 27815 | 13 | 146.40 | 44121 | 22 | 144.16 |
| 57311 | 36 | 132.31 | djurd | 46 | 119.35 | slavo | 49 | 113.31 |
| kosic | 67 | 111.94 | 17308 | 7 | 107.16 | 48101 | 27 | 103.21 |
| 55502 | 33 | 103.08 | 36407 | 17 | 102.41 | 43613 | 21 | 99.48 |
| 16601 | 1 | 94.47 | 66519 | 42 | 89.79 | 17809 | 8 | 87.53 |
| sanni | 58 | 86.81 | 58300 | 38 | 85.90 | 58113 | 37 | 84.43 |
| 54306 | 32 | 82.68 | palic | 52 | 78.75 | 44527 | 24 | 77.87 |
| 15307 | 4 | 67.36 | uzhgo | 62 | 65.23 | hurba | 64 | 61.41 |
| orade | 56 | 60.05 | 16414 | 6 | 58.97 | brati | 63 | 58.93 |
| 53101 | 30 | 58.55 | 36500 | 18 | 55.73 | bereg | 60 | 53.14 |
| sacui | 57 | 53.01 | 23201 | 9 | 52.68 | 28700 | 14 | 51.35 |
| 36100 | 16 | 50.36 | 34211 | 15 | 49.63 | lucen | 65 | 49.62 |
| 16203 | 5 | 45.75 | satu | 59 | 44.82 | stos | 66 | 41.32 |
| 51705 | 28 | 41.05 | 55706 | 34 | 39.79 | 64704 | 41 | 39.48 |
| 44214 | 23 | 38.88 | 26505 | 12 | 38.70 | 13703 | 2 | 38.17 |
| 38605 | 19 | 38.02 | khust | 61 | 35.36 | 39113 | 20 | 34.50 |
| milho | 68 | 28.75 | 63411 | 40 | 26.97 | 23703 | 10 | 25.33 |
| 73302 | 43 | 20.36 | 47106 | 26 | 16.93 | | | |
| AVERAGE: | | 119.82 | | | | | | |

Table 4.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 47106 | 26 | 0.21 | 28700 | 14 | 0.23 | 17308 | 7 | 0.28 |
| 36100 | 16 | 0.31 | khust | 61 | 0.32 | bereg | 60 | 0.35 |
| valpo | 50 | 0.35 | 73302 | 43 | 0.39 | 36407 | 17 | 0.41 |
| 61709 | 39 | 0.41 | 34211 | 15 | 0.44 | 51705 | 28 | 0.45 |
| 16601 | 1 | 0.46 | 38605 | 19 | 0.46 | 44214 | 23 | 0.47 |
| 53521 | 31 | 0.47 | 23703 | 10 | 0.48 | sacui | 57 | 0.49 |
| sanni | 58 | 0.50 | 26505 | 12 | 0.52 | milho | 68 | 0.52 |
| djurd | 46 | 0.52 | 23201 | 9 | 0.54 | 27815 | 13 | 0.54 |
| stos | 66 | 0.55 | bjelo | 44 | 0.56 | lucen | 65 | 0.56 |
| 15307 | 4 | 0.56 | donji | 47 | 0.56 | 39113 | 20 | 0.57 |
| daruv | 45 | 0.57 | 16414 | 6 | 0.57 | slavo | 49 | 0.57 |
| orade | 56 | 0.57 | 64704 | 41 | 0.57 | satu | 59 | 0.58 |
| 52819 | 29 | 0.59 | osije | 48 | 0.59 | 36500 | 18 | 0.59 |
| 54306 | 32 | 0.60 | sombo | 53 | 0.60 | 17809 | 8 | 0.60 |
| 25212 | 11 | 0.60 | kosic | 67 | 0.61 | hurba | 64 | 0.62 |
| 58300 | 38 | 0.62 | 44527 | 24 | 0.62 | 16203 | 5 | 0.62 |
| arad | 55 | 0.62 | brati | 63 | 0.63 | 63411 | 40 | 0.63 |
| 43613 | 21 | 0.64 | 14706 | 3 | 0.65 | 53101 | 30 | 0.65 |
| 13703 | 2 | 0.66 | 44121 | 22 | 0.66 | 48101 | 27 | 0.67 |
| 57311 | 36 | 0.67 | 55502 | 33 | 0.67 | uzhgo | 62 | 0.67 |
| 66519 | 42 | 0.68 | palic | 52 | 0.71 | kikin | 54 | 0.72 |
| backi | 51 | 0.74 | 46303 | 25 | 0.75 | 58113 | 37 | 0.75 |
| 55706 | 34 | 0.75 | 56300 | 35 | 0.78 | | | |
| AVERAGE: | | 0.56 | | | | | | |

The Stations are the same as at Table 1.1c.

Table 4.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| PO | 31 | 112.33 | LO | 19 | 104.09 | BL | 11 | 98.70 |
| CA | 12 | 75.56 | SN | 5 | 69.35 | TI | 6 | 66.60 |
| NS | 15 | 63.40 | SC | 9 | 62.65 | OR | 8 | 58.16 |
| VG | 26 | 52.40 | NE | 27 | 52.31 | VL | 2 | 47.96 |
| ZR | 16 | 47.05 | SE | 28 | 46.09 | KI | 17 | 45.53 |
| SZ | 4 | 40.67 | KS | 33 | 38.97 | CU | 34 | 36.32 |
| KV | 32 | 35.82 | BJ | 3 | 35.72 | VA | 21 | 33.60 |
| SU | 22 | 32.77 | PA | 13 | 30.51 | BN | 7 | 30.48 |
| SM | 20 | 30.33 | VS | 18 | 29.60 | TS | 10 | 28.00 |
| ZA | 35 | 27.62 | KG | 24 | 24.27 | ZG | 29 | 21.33 |
| SP | 25 | 20.23 | BG | 23 | 20.15 | ZL | 30 | 19.36 |
| OS | 1 | 19.21 | SO | 14 | 15.86 | | | |
| AVERAGE: | | 44.94 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| SE | 28 | 579.11 | CA | 12 | 406.98 | VL | 2 | 386.30 |
| ZG | 29 | 383.55 | SZ | 4 | 357.77 | SO | 14 | 343.71 |
| OS | 1 | 273.33 | LO | 19 | 211.21 | ZR | 16 | 179.98 |
| BN | 7 | 177.94 | TI | 6 | 164.27 | SN | 5 | 152.90 |
| BL | 11 | 145.27 | BJ | 3 | 141.69 | KS | 33 | 136.52 |
| TS | 10 | 130.44 | PO | 31 | 126.30 | SU | 22 | 124.09 |
| KI | 17 | 120.64 | SC | 9 | 116.53 | NS | 15 | 104.64 |
| CU | 34 | 103.28 | OR | 8 | 101.78 | ZA | 35 | 87.87 |
| SM | 20 | 81.35 | KG | 24 | 53.99 | NE | 27 | 53.11 |
| KV | 32 | 43.17 | VS | 18 | 41.62 | VG | 26 | 41.53 |
| PA | 13 | 39.99 | VA | 21 | 31.93 | BG | 23 | 25.43 |
| ZL | 30 | 20.85 | SP | 25 | 19.67 | | | |
| AVERAGE: | | 157.39 | | | | | | |

Table 4.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| KS | 33 | 0.30 | ZG | 29 | 0.32 | VL | 2 | 0.33 |
| BL | 11 | 0.38 | SE | 28 | 0.45 | OR | 8 | 0.47 |
| BN | 7 | 0.47 | SC | 9 | 0.49 | SN | 5 | 0.49 |
| CA | 12 | 0.49 | TS | 10 | 0.49 | OS | 1 | 0.51 |
| TI | 6 | 0.54 | VS | 18 | 0.54 | PO | 31 | 0.55 |
| SM | 20 | 0.58 | ZL | 30 | 0.58 | VA | 21 | 0.59 |
| BJ | 3 | 0.60 | KG | 24 | 0.62 | ZA | 35 | 0.62 |
| LO | 19 | 0.63 | SO | 14 | 0.64 | NE | 27 | 0.67 |
| CU | 34 | 0.70 | SU | 22 | 0.70 | VG | 26 | 0.71 |
| PA | 13 | 0.71 | SP | 25 | 0.72 | SZ | 4 | 0.72 |
| BG | 23 | 0.73 | KV | 32 | 0.73 | KI | 17 | 0.76 |
| ZR | 16 | 0.80 | NS | 15 | 0.80 | | | |
| AVERAGE: | | 0.58 | | | | | | |

Table 4.2c. Station parameters of the series system of Serbia and near border series from Croatia, Hungary, Romania

| index | lambda(x) | fi(y) | station |
|-------|-------------|-------------|-----------------------|
| 1 | 18.63300000 | 45.53300000 | Osijek |
| 2 | 18.35000000 | 45.66700000 | Valpovo |
| 3 | 19.01666667 | 46.18333334 | Baja |
| 4 | 20.09027778 | 46.25611112 | Szeged |
| 5 | 20.60156002 | 46.07128625 | Sannicolau Mare |
| 6 | 21.25807108 | 45.77105643 | Timisoara |
| 7 | 21.13639857 | 45.38270108 | Banloc |
| 8 | 21.71048271 | 45.03871153 | Oravita |
| 9 | 22.05580461 | 45.18139466 | Semenic |
| 10 | 22.62607371 | 44.62645870 | Drobeta Turnu Severin |
| 11 | 23.11307189 | 44.47618111 | Bacles |
| 12 | 22.94605240 | 43.98489980 | Calafat |
| 13 | 19.76402300 | 46.09721800 | Palic |
| 14 | 19.14313500 | 45.76700000 | Sombor |
| 15 | 19.83000300 | 45.32221500 | Novi Sad |
| 16 | 20.37600800 | 45.39872400 | Zrenjanin |
| 17 | 20.46464000 | 45.84263400 | Kikinda |
| 18 | 21.30552400 | 45.14413700 | Vršac |
| 19 | 19.22693300 | 44.54109900 | Loznica |
| 20 | 19.55503600 | 45.00937300 | Sremska Mitrovica |
| 21 | 19.91247300 | 44.27546400 | Valjevo |
| 22 | 20.29106300 | 44.82423700 | Surcin |
| 23 | 20.46482200 | 44.79845700 | Beograd |
| 24 | 20.92777100 | 44.02722200 | Kragujevac |
| 25 | 20.94214600 | 44.36960000 | Smederevska Palanka |
| 26 | 21.49843000 | 44.75261400 | Veliko Gradište |
| 27 | 22.53634000 | 44.23915700 | Negotin |
| 28 | 20.09604500 | 45.92344200 | Senta |
| 29 | 21.77957700 | 44.19973700 | Žagubica |
| 30 | 19.71302300 | 43.73780700 | Zlatibor |
| 31 | 20.02952100 | 43.84307000 | Pozega |
| 32 | 20.69983600 | 43.70888400 | Kraljevo |
| 33 | 21.33995400 | 43.56405400 | Krusevac |
| 34 | 21.38063600 | 43.94061600 | Cuprija |
| 35 | 22.28856500 | 43.88312800 | Zajecar |

Table 4.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 13295 | 131 | 207.40 | 13285 | 132 | 125.20 | 13174 | 130 | 123.02 |
| 439534 | 23 | 81.63 | 414352 | 13 | 70.31 | 608121 | 82 | 64.29 |
| 523328 | 55 | 60.87 | 456526 | 35 | 60.62 | 452452 | 31 | 60.46 |
| 539357 | 66 | 60.29 | 634322 | 95 | 60.29 | 528518 | 62 | 60.22 |
| 511349 | 46 | 59.50 | 511912 | 48 | 58.97 | 428307 | 18 | 56.58 |
| 710736 | 111 | 56.27 | 525215 | 58 | 54.85 | 639744 | 98 | 54.29 |
| 538416 | 65 | 53.17 | 541601 | 68 | 52.88 | 413838 | 12 | 52.46 |
| 604037 | 79 | 51.79 | 557334 | 76 | 51.73 | 546115 | 70 | 49.75 |
| 412721 | 11 | 47.28 | 614436 | 85 | 46.78 | 13183 | 133 | 46.70 |
| 722657 | 116 | 46.47 | 610244 | 83 | 46.26 | 651305 | 103 | 46.14 |
| 611355 | 84 | 44.10 | 502141 | 39 | 43.92 | 33658 | 136 | 43.79 |
| 502317 | 40 | 42.96 | 445718 | 29 | 42.65 | 709352 | 110 | 42.14 |
| 438238 | 22 | 41.96 | 453344 | 32 | 41.72 | 446853 | 30 | 41.66 |
| 455200 | 34 | 41.37 | 655522 | 104 | 41.10 | 527527 | 61 | 40.89 |
| 523530 | 56 | 40.72 | 722205 | 115 | 40.62 | 347357 | 2 | 40.13 |
| 425606 | 17 | 40.03 | 711305 | 112 | 39.10 | 517545 | 51 | 38.90 |
| 551621 | 73 | 38.58 | 703156 | 108 | 38.17 | 457600 | 36 | 37.46 |
| 359257 | 5 | 36.96 | 444820 | 28 | 36.88 | 622544 | 91 | 36.25 |
| 632130 | 92 | 35.95 | 747356 | 121 | 35.81 | 406421 | 8 | 35.58 |
| 606705 | 81 | 35.37 | 647334 | 101 | 35.22 | 506422 | 41 | 34.96 |
| 349835 | 3 | 34.92 | 444417 | 27 | 34.21 | 656555 | 106 | 34.06 |
| 454936 | 33 | 34.02 | 740330 | 119 | 34.01 | 519622 | 53 | 33.81 |
| 600608 | 77 | 33.32 | 741640 | 120 | 33.21 | 737439 | 117 | 32.76 |
| 714623 | 113 | 32.52 | 509649 | 44 | 32.08 | 655650 | 105 | 31.78 |
| 632432 | 94 | 31.71 | 530801 | 64 | 31.60 | 444127 | 26 | 31.51 |
| 541154 | 67 | 31.17 | 617220 | 87 | 30.72 | 542532 | 69 | 30.59 |
| 13173 | 134 | 30.12 | 602213 | 78 | 30.03 | 509441 | 43 | 29.20 |
| 33657 | 139 | 29.20 | 415816 | 14 | 29.14 | 632229 | 93 | 28.53 |
| 548409 | 71 | 28.48 | 530535 | 63 | 28.02 | 635658 | 97 | 27.93 |
| 443639 | 25 | 27.85 | 708430 | 109 | 27.69 | 617637 | 88 | 27.58 |
| 436447 | 21 | 27.53 | 646247 | 100 | 27.51 | 523108 | 54 | 27.51 |
| 417530 | 15 | 27.41 | 739615 | 118 | 27.04 | 407500 | 9 | 26.51 |
| 441757 | 24 | 26.37 | 58300 | 129 | 26.24 | 525323 | 59 | 26.09 |
| 656621 | 107 | 26.05 | 428632 | 19 | 26.04 | 758355 | 124 | 25.88 |
| 551716 | 74 | 25.77 | 551459 | 72 | 25.63 | 500432 | 37 | 25.36 |
| 507158 | 42 | 25.07 | 511849 | 47 | 24.60 | 33634 | 135 | 24.52 |
| 57311 | 127 | 23.74 | 622303 | 90 | 23.60 | 517507 | 50 | 23.54 |
| 401321 | 7 | 22.75 | 518231 | 52 | 22.63 | 515231 | 49 | 22.56 |
| 509940 | 45 | 22.29 | 642540 | 99 | 22.27 | 751555 | 123 | 20.91 |
| 422751 | 16 | 20.52 | 635347 | 96 | 20.48 | 525358 | 60 | 20.22 |
| 33647 | 138 | 19.76 | 618518 | 89 | 19.58 | 66519 | 125 | 18.64 |
| 352557 | 4 | 18.63 | 408800 | 10 | 18.41 | 33638 | 137 | 18.39 |
| 346452 | 1 | 18.03 | 719507 | 114 | 17.95 | 64704 | 126 | 17.61 |
| 605537 | 80 | 17.40 | 359521 | 6 | 16.69 | 553254 | 75 | 15.73 |
| 73302 | 128 | 15.55 | 614740 | 86 | 14.98 | 650727 | 102 | 13.57 |
| 523703 | 57 | 13.56 | 430608 | 20 | 12.07 | 748253 | 122 | 11.66 |
| 501252 | 38 | 11.27 | | | | | | |
| AVERAGE: | | 36.90 | | | | | | |

| 2. Test Statistics Before Homogenization | | | | | | | | |
|--|-------|--------|--------|-------|--------|--------|-------|--------|
| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
| 614436 | 85 | 520.95 | 709352 | 110 | 499.06 | 511349 | 46 | 429.38 |
| 444417 | 27 | 362.89 | 632432 | 94 | 317.76 | 2802 | 130 | 313.81 |
| 359257 | 5 | 303.86 | 747356 | 121 | 288.19 | 511912 | 48 | 287.72 |
| 13295 | 132 | 258.35 | 608121 | 82 | 241.35 | 66519 | 125 | 228.27 |
| 639744 | 98 | 224.28 | 425606 | 17 | 222.03 | 611355 | 84 | 218.21 |
| 525215 | 58 | 217.43 | 655522 | 104 | 212.94 | 606705 | 81 | 212.02 |
| 541601 | 68 | 205.44 | 656555 | 106 | 201.75 | 438238 | 22 | 192.29 |
| 445718 | 29 | 190.12 | 548409 | 71 | 182.14 | 546115 | 70 | 174.19 |
| 13174 | 131 | 170.13 | 412721 | 11 | 166.49 | 538416 | 65 | 166.40 |
| 428307 | 18 | 166.19 | 509649 | 44 | 158.37 | 634322 | 95 | 152.50 |
| 349835 | 3 | 151.89 | 439534 | 23 | 151.57 | 428632 | 19 | 148.81 |
| 414352 | 13 | 147.85 | 523328 | 55 | 141.60 | 758355 | 124 | 138.47 |
| 453344 | 32 | 134.44 | 551459 | 72 | 130.76 | 454936 | 33 | 130.42 |
| 347357 | 2 | 129.44 | 456526 | 35 | 128.23 | 452452 | 31 | 126.65 |
| 632229 | 93 | 126.48 | 13285 | 133 | 124.48 | 600608 | 77 | 121.04 |
| 507158 | 42 | 119.39 | 710736 | 111 | 119.38 | 647334 | 101 | 118.47 |
| 441757 | 24 | 118.01 | 604037 | 79 | 117.76 | 13173 | 135 | 115.67 |
| 523108 | 54 | 113.83 | 542532 | 69 | 113.82 | 530801 | 64 | 111.40 |
| 444820 | 28 | 110.62 | 708430 | 109 | 109.89 | 617220 | 87 | 108.73 |
| 635658 | 97 | 107.46 | 642540 | 99 | 107.07 | 408800 | 10 | 106.83 |
| 655650 | 105 | 105.07 | 651305 | 103 | 103.46 | 33647 | 139 | 99.79 |
| 632130 | 92 | 97.62 | 57311 | 127 | 97.36 | 519622 | 53 | 96.28 |
| 446853 | 30 | 93.02 | 457600 | 36 | 92.28 | 539357 | 66 | 90.64 |
| 346452 | 1 | 89.85 | 656621 | 107 | 86.04 | 553254 | 75 | 86.02 |
| 551621 | 73 | 85.62 | 407500 | 9 | 85.34 | 551716 | 74 | 84.93 |
| 740330 | 119 | 84.35 | 622303 | 90 | 82.72 | 33634 | 136 | 81.62 |
| 602213 | 78 | 80.62 | 413838 | 12 | 80.01 | 528518 | 62 | 79.55 |
| 610244 | 83 | 79.32 | 33657 | 140 | 78.72 | 525323 | 59 | 78.59 |
| 541154 | 67 | 78.56 | 722657 | 116 | 76.85 | 517507 | 50 | 75.23 |
| 739615 | 118 | 74.73 | 33638 | 138 | 73.97 | 719507 | 114 | 72.82 |
| 506422 | 41 | 72.51 | 406421 | 8 | 71.59 | 417530 | 15 | 68.48 |
| 622544 | 91 | 66.75 | 455200 | 34 | 66.74 | 557334 | 76 | 64.37 |
| 722205 | 115 | 64.10 | 502317 | 40 | 63.76 | 502141 | 39 | 62.02 |
| 518231 | 52 | 58.41 | 748253 | 122 | 58.01 | 605537 | 80 | 57.97 |
| 646247 | 100 | 57.00 | 13183 | 134 | 56.94 | 401321 | 7 | 56.83 |
| 703156 | 108 | 56.26 | 415816 | 14 | 55.88 | 618518 | 89 | 55.60 |
| 443639 | 25 | 55.13 | 741640 | 120 | 54.66 | 422751 | 16 | 53.23 |
| 436447 | 21 | 52.54 | 352557 | 4 | 50.07 | 617637 | 88 | 48.41 |
| 523530 | 56 | 47.89 | 711305 | 112 | 47.32 | 517545 | 51 | 46.86 |
| 751555 | 123 | 45.72 | 444127 | 26 | 45.71 | 714623 | 113 | 45.32 |
| 58300 | 129 | 43.37 | 527527 | 61 | 42.82 | 530535 | 63 | 40.62 |
| 635347 | 96 | 40.25 | 650727 | 102 | 39.69 | 359521 | 6 | 38.07 |
| 614740 | 86 | 37.11 | 500432 | 37 | 37.00 | 430608 | 20 | 35.45 |
| 511849 | 47 | 34.96 | 501252 | 38 | 33.61 | 737439 | 117 | 32.83 |
| 33658 | 137 | 30.88 | 509441 | 43 | 29.76 | 525358 | 60 | 27.34 |
| 509940 | 45 | 26.05 | 515231 | 49 | 22.78 | 64704 | 126 | 21.87 |
| 523703 | 57 | 21.33 | 73302 | 128 | 18.69 | | | |
| AVERAGE: | | 115.33 | | | | | | |

Table 4.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 523703 | 57 | 0.19 | 656555 | 106 | 0.19 | 346452 | 1 | 0.22 |
| 551621 | 73 | 0.24 | 527527 | 61 | 0.25 | 737439 | 117 | 0.26 |
| 33634 | 135 | 0.29 | 445718 | 29 | 0.30 | 525323 | 59 | 0.30 |
| 618518 | 89 | 0.30 | 622544 | 91 | 0.32 | 635347 | 96 | 0.32 |
| 646247 | 100 | 0.32 | 511349 | 46 | 0.34 | 33647 | 138 | 0.34 |

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|-----------------------------|-----|---------------------------|--------|-----|-------------------------|--------|-------------------|------|
| 73302 | 128 | 0.35 | 456526 | 35 | 0.35 | 538416 | 65 | 0.35 |
| 740330 | 119 | 0.35 | 444127 | 26 | 0.35 | 509441 | 43 | 0.36 |
| 401321 | 7 | 0.36 | 611355 | 84 | 0.36 | 443639 | 25 | 0.38 |
| 441757 | 24 | 0.38 | 422751 | 16 | 0.38 | 33658 | 136 | 0.39 |
| 541601 | 68 | 0.39 | 517507 | 50 | 0.39 | 525358 | 60 | 0.39 |
| 709352 | 110 | 0.40 | 739615 | 118 | 0.40 | 511912 | 48 | 0.40 |
| 605537 | 80 | 0.40 | 33657 | 139 | 0.40 | 33638 | 137 | 0.41 |
| 714623 | 113 | 0.41 | 634322 | 95 | 0.41 | 751555 | 123 | 0.41 |
| 711305 | 112 | 0.42 | 444417 | 27 | 0.42 | 519622 | 53 | 0.42 |
| 501252 | 38 | 0.42 | 651305 | 103 | 0.42 | 614740 | 86 | 0.42 |
| 548409 | 71 | 0.42 | 446853 | 30 | 0.43 | 352557 | 4 | 0.43 |
| 507158 | 42 | 0.43 | 551459 | 72 | 0.44 | 602213 | 78 | 0.44 |
| 525215 | 58 | 0.44 | 509940 | 45 | 0.45 | 515231 | 49 | 0.45 |
| 417530 | 15 | 0.45 | 454936 | 33 | 0.45 | 541154 | 67 | 0.45 |
| 530535 | 63 | 0.46 | 518231 | 52 | 0.46 | 719507 | 114 | 0.46 |
| 622303 | 90 | 0.46 | 542532 | 69 | 0.46 | 444820 | 28 | 0.47 |
| 650727 | 102 | 0.47 | 722657 | 116 | 0.47 | 523108 | 54 | 0.47 |
| 553254 | 75 | 0.47 | 502141 | 39 | 0.47 | 500432 | 37 | 0.47 |
| 511849 | 47 | 0.47 | 523328 | 55 | 0.47 | 539357 | 66 | 0.48 |
| 758355 | 124 | 0.48 | 406421 | 8 | 0.48 | 708430 | 109 | 0.48 |
| 551716 | 74 | 0.48 | 428307 | 18 | 0.48 | 509649 | 44 | 0.48 |
| 439534 | 23 | 0.49 | 606705 | 81 | 0.49 | 642540 | 99 | 0.50 |
| 359257 | 5 | 0.50 | 415816 | 14 | 0.50 | 455200 | 34 | 0.50 |
| 604037 | 79 | 0.50 | 600608 | 77 | 0.50 | 347357 | 2 | 0.50 |
| 425606 | 17 | 0.51 | 632229 | 93 | 0.51 | 349835 | 3 | 0.51 |
| 557334 | 76 | 0.51 | 64704 | 126 | 0.51 | 453344 | 32 | 0.52 |
| 359521 | 6 | 0.52 | 457600 | 36 | 0.52 | 632130 | 92 | 0.52 |
| 546115 | 70 | 0.52 | 656621 | 107 | 0.52 | 414352 | 13 | 0.53 |
| 617220 | 87 | 0.53 | 617637 | 88 | 0.53 | 722205 | 115 | 0.54 |
| 703156 | 108 | 0.54 | 610244 | 83 | 0.54 | 438238 | 22 | 0.54 |
| 413838 | 12 | 0.54 | 436447 | 21 | 0.55 | 747356 | 121 | 0.55 |
| 647334 | 101 | 0.55 | 430608 | 20 | 0.56 | 748253 | 122 | 0.56 |
| 632432 | 94 | 0.56 | 528518 | 62 | 0.56 | 517545 | 51 | 0.56 |
| 407500 | 9 | 0.56 | 506422 | 41 | 0.57 | 523530 | 56 | 0.57 |
| 614436 | 85 | 0.57 | 741640 | 120 | 0.57 | 13183 | 133 | 0.58 |
| 408800 | 10 | 0.58 | 412721 | 11 | 0.58 | 428632 | 19 | 0.59 |
| 655650 | 105 | 0.59 | 639744 | 98 | 0.59 | 58300 | 129 | 0.59 |
| 530801 | 64 | 0.60 | 502317 | 40 | 0.60 | 635658 | 97 | 0.60 |
| 608121 | 82 | 0.62 | 13295 | 131 | 0.62 | 57311 | 127 | 0.63 |
| 452452 | 31 | 0.63 | 66519 | 125 | 0.65 | 655522 | 104 | 0.66 |
| 710736 | 111 | 0.66 | 13285 | 132 | 0.68 | 13173 | 134 | 0.75 |
| 13174 | 130 | 0.77 | | | | | | |
| AVERAGE: | | 0.47 | | | | | | |

The Stations are the same as at Table 1.3c.

Table 4.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 43 | 43 | 57.40 | 46 | 46 | 53.55 | 14 | 14 | 46.68 |
| 49 | 49 | 44.91 | 36 | 36 | 43.32 | 29 | 29 | 42.84 |
| 44 | 44 | 41.66 | 24 | 24 | 39.70 | 50 | 50 | 39.61 |
| 40 | 40 | 38.90 | 11 | 11 | 38.65 | 39 | 39 | 36.30 |
| 3 | 3 | 36.04 | 9 | 9 | 34.84 | 52 | 52 | 33.77 |
| 20 | 20 | 33.64 | 45 | 45 | 33.17 | 27 | 27 | 31.12 |
| 51 | 51 | 30.35 | 30 | 30 | 28.31 | 26 | 26 | 28.17 |
| 16 | 16 | 26.61 | 35 | 35 | 25.56 | 48 | 48 | 24.67 |
| 19 | 19 | 24.41 | 34 | 34 | 23.78 | 7 | 7 | 23.47 |
| 33 | 33 | 23.00 | 41 | 41 | 22.91 | 38 | 38 | 22.65 |
| 23 | 23 | 22.12 | 53 | 53 | 22.06 | 47 | 47 | 20.09 |
| 32 | 32 | 19.17 | 12 | 12 | 19.01 | 18 | 18 | 18.83 |
| 15 | 15 | 18.25 | 22 | 22 | 17.62 | 37 | 37 | 17.52 |
| 25 | 25 | 17.02 | 10 | 10 | 16.28 | 1 | 1 | 16.25 |
| 17 | 17 | 15.76 | 42 | 42 | 14.84 | 5 | 5 | 14.55 |
| 2 | 2 | 14.00 | 4 | 4 | 13.86 | 6 | 6 | 13.49 |
| 28 | 28 | 13.39 | 21 | 21 | 13.29 | 31 | 31 | 11.83 |
| 8 | 8 | 8.74 | 13 | 13 | 7.26 | | | |
| AVERAGE: | | 26.32 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 51 | 51 | 422.87 | 32 | 32 | 311.89 | 20 | 20 | 298.25 |
| 26 | 26 | 231.15 | 4 | 4 | 200.54 | 48 | 48 | 200.38 |
| 13 | 13 | 199.01 | 43 | 43 | 171.75 | 33 | 33 | 170.05 |
| 27 | 27 | 164.53 | 1 | 1 | 149.03 | 9 | 9 | 140.21 |
| 50 | 50 | 130.33 | 40 | 40 | 128.78 | 16 | 16 | 124.60 |
| 21 | 21 | 118.65 | 29 | 29 | 111.92 | 14 | 14 | 108.31 |
| 45 | 45 | 102.79 | 28 | 28 | 98.41 | 17 | 17 | 94.15 |
| 19 | 19 | 85.52 | 39 | 39 | 83.22 | 36 | 36 | 83.02 |
| 3 | 3 | 82.80 | 23 | 23 | 78.56 | 25 | 25 | 78.20 |
| 52 | 52 | 77.10 | 35 | 35 | 76.29 | 22 | 22 | 72.47 |
| 11 | 11 | 69.01 | 24 | 24 | 65.38 | 49 | 49 | 61.37 |
| 2 | 2 | 57.85 | 12 | 12 | 57.84 | 44 | 44 | 53.73 |
| 46 | 46 | 52.40 | 30 | 30 | 50.24 | 5 | 5 | 49.99 |
| 15 | 15 | 49.33 | 7 | 7 | 48.20 | 38 | 38 | 47.60 |
| 53 | 53 | 43.52 | 31 | 31 | 42.31 | 6 | 6 | 42.05 |
| 18 | 18 | 37.75 | 37 | 37 | 36.65 | 41 | 41 | 33.65 |
| 34 | 34 | 33.10 | 10 | 10 | 29.44 | 42 | 42 | 28.98 |
| 47 | 47 | 19.53 | 8 | 8 | 11.13 | | | |
| AVERAGE: | | 102.19 | | | | | | |

Table 4.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 53 | 53 | 0.25 | 28 | 28 | 0.26 | 37 | 37 | 0.28 |
| 10 | 10 | 0.33 | 23 | 23 | 0.34 | 45 | 45 | 0.35 |
| 52 | 52 | 0.35 | 25 | 25 | 0.36 | 35 | 35 | 0.38 |
| 49 | 49 | 0.38 | 47 | 47 | 0.39 | 42 | 42 | 0.41 |
| 3 | 3 | 0.42 | 38 | 38 | 0.44 | 36 | 36 | 0.44 |
| 41 | 41 | 0.45 | 34 | 34 | 0.45 | 14 | 14 | 0.46 |
| 39 | 39 | 0.49 | 26 | 26 | 0.49 | 21 | 21 | 0.50 |
| 31 | 31 | 0.50 | 50 | 50 | 0.51 | 33 | 33 | 0.52 |
| 48 | 48 | 0.54 | 44 | 44 | 0.54 | 8 | 8 | 0.55 |
| 13 | 13 | 0.55 | 40 | 40 | 0.56 | 32 | 32 | 0.57 |
| 51 | 51 | 0.57 | 17 | 17 | 0.58 | 20 | 20 | 0.59 |
| 15 | 15 | 0.59 | 1 | 1 | 0.60 | 16 | 16 | 0.60 |
| 46 | 46 | 0.60 | 5 | 5 | 0.63 | 4 | 4 | 0.63 |
| 12 | 12 | 0.65 | 29 | 29 | 0.65 | 6 | 6 | 0.67 |
| 43 | 43 | 0.67 | 11 | 11 | 0.67 | 24 | 24 | 0.68 |
| 18 | 18 | 0.71 | 22 | 22 | 0.71 | 7 | 7 | 0.71 |
| 19 | 19 | 0.71 | 2 | 2 | 0.71 | 30 | 30 | 0.73 |
| 9 | 9 | 0.73 | 27 | 27 | 0.78 | | | |
| AVERAGE: | | 0.53 | | | | | | |

The Stations are the same as at Table 1.4c.

Table 4.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 6605 | 38 | 105.96 | 11782 | 44 | 54.36 | 23201 | 31 | 52.05 |
| 11993 | 22 | 52.05 | 625 | 34 | 51.55 | 660 | 36 | 46.42 |
| 11961 | 18 | 43.68 | 11803 | 1 | 40.90 | 44121 | 27 | 40.57 |
| 11868 | 8 | 39.97 | 33511 | 24 | 39.93 | 11779 | 40 | 38.88 |
| 11785 | 42 | 37.53 | 600 | 33 | 37.03 | 11819 | 4 | 36.94 |
| 11903 | 12 | 36.58 | 11910 | 13 | 35.98 | 11902 | 11 | 35.64 |
| 11813 | 3 | 35.36 | 11931 | 15 | 34.29 | 11774 | 39 | 33.43 |
| 11968 | 19 | 32.76 | 11866 | 6 | 32.06 | 650 | 35 | 30.84 |
| 11938 | 16 | 30.44 | 23703 | 28 | 30.05 | 11876 | 10 | 29.67 |
| 11867 | 7 | 29.35 | 11978 | 21 | 29.12 | 11946 | 17 | 28.20 |
| 51705 | 29 | 28.14 | 11806 | 2 | 27.42 | 33514 | 26 | 26.44 |
| 61709 | 32 | 25.90 | 11927 | 14 | 25.82 | 11858 | 5 | 23.42 |
| 11977 | 20 | 23.25 | 33634 | 23 | 21.00 | 53101 | 30 | 20.17 |
| 690 | 37 | 19.62 | 33631 | 25 | 16.65 | 11874 | 9 | 15.68 |
| 11766 | 41 | 13.36 | 11787 | 43 | 7.65 | | | |
| AVERAGE: | | 34.00 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11779 | 40 | 812.87 | 11785 | 42 | 757.21 | 6605 | 38 | 380.19 |
| 11910 | 13 | 318.06 | 11819 | 4 | 218.53 | 11993 | 22 | 159.54 |
| 11868 | 8 | 129.88 | 11803 | 1 | 122.24 | 11902 | 11 | 120.15 |
| 61709 | 32 | 116.41 | 11968 | 19 | 107.02 | 11903 | 12 | 89.95 |
| 33514 | 26 | 72.24 | 44121 | 27 | 70.48 | 625 | 34 | 62.86 |
| 11806 | 2 | 61.81 | 600 | 33 | 59.15 | 51705 | 29 | 58.55 |
| 23201 | 31 | 57.36 | 33631 | 25 | 56.39 | 11858 | 5 | 56.19 |
| 11876 | 10 | 55.64 | 11782 | 44 | 55.30 | 660 | 36 | 53.98 |
| 11961 | 18 | 53.75 | 33511 | 24 | 52.03 | 33634 | 23 | 50.44 |
| 11931 | 15 | 47.81 | 11946 | 17 | 47.31 | 23703 | 28 | 46.52 |
| 11813 | 3 | 44.73 | 650 | 35 | 44.63 | 11938 | 16 | 43.86 |
| 53101 | 30 | 43.70 | 11977 | 20 | 43.62 | 11978 | 21 | 41.01 |
| 11927 | 14 | 37.13 | 11867 | 7 | 26.87 | 11866 | 6 | 26.73 |
| 11774 | 39 | 22.43 | 690 | 37 | 21.89 | 11874 | 9 | 21.53 |
| 11766 | 41 | 14.44 | 11787 | 43 | 10.63 | | | |
| AVERAGE: | | 108.93 | | | | | | |

Table 4.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 11961 | 18 | 0.28 | 11785 | 42 | 0.31 | 11866 | 6 | 0.31 |
| 690 | 37 | 0.33 | 6605 | 38 | 0.35 | 11876 | 10 | 0.35 |
| 11868 | 8 | 0.37 | 33634 | 23 | 0.38 | 61709 | 32 | 0.39 |
| 11787 | 43 | 0.39 | 11977 | 20 | 0.41 | 11803 | 1 | 0.42 |
| 11806 | 2 | 0.42 | 33511 | 24 | 0.42 | 11779 | 40 | 0.43 |
| 11782 | 44 | 0.43 | 600 | 33 | 0.45 | 51705 | 29 | 0.45 |
| 650 | 35 | 0.46 | 11931 | 15 | 0.46 | 11774 | 39 | 0.47 |
| 23703 | 28 | 0.47 | 660 | 36 | 0.47 | 33514 | 26 | 0.50 |
| 11874 | 9 | 0.50 | 23201 | 31 | 0.51 | 11946 | 17 | 0.51 |

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|-----------------------------|---------------------------|-------------------------|-------------------|
| 625 34 0.52 | 11978 21 | 0.53 | 11927 14 0.53 |
| 11766 41 0.54 | 11903 12 | 0.54 | 11938 16 0.55 |
| 11867 7 0.56 | 44121 27 | 0.57 | 11910 13 0.58 |
| 53101 30 0.59 | 11902 11 | 0.60 | 11819 4 0.61 |
| 11968 19 0.61 | 11813 3 | 0.62 | 11858 5 0.62 |
| 33631 25 0.67 | 11993 22 | 0.68 | |
| AVERAGE: | 0.48 | | |

Table 4.5c. Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| index | lambda(x) | fi(y) | h | Station |
|-------|-------------|-------------|--------|---------|
| 1 | 18.02916667 | 48.89694449 | 209.0 | 11803 |
| 2 | 17.57805559 | 48.75055559 | 409.0 | 11806 |
| 3 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 4 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 5 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 6 | 18.77527782 | 49.43916669 | 423.0 | 11866 |
| 7 | 18.59388892 | 48.76972226 | 260.0 | 11867 |
| 8 | 19.18305556 | 49.36833335 | 780.0 | 11868 |
| 9 | 19.72527782 | 49.03916667 | 640.0 | 11874 |
| 10 | 19.91055560 | 49.14000001 | 972.0 | 11876 |
| 11 | 19.09388889 | 48.31916668 | 355.0 | 11902 |
| 12 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 13 | 19.64666670 | 48.64444448 | 1015.0 | 11910 |
| 14 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 15 | 20.23583335 | 49.18944445 | 1778.0 | 11931 |
| 16 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 17 | 20.80138893 | 48.71666670 | 575.0 | 11946 |
| 18 | 20.84583338 | 49.25972224 | 485.0 | 11961 |
| 19 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 20 | 21.91388894 | 49.25333335 | 305.0 | 11977 |
| 21 | 21.73472226 | 48.66805559 | 104.0 | 11978 |
| 22 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 23 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 24 | 23.00000000 | 49.20000001 | 594.0 | 33511 |
| 25 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 26 | 22.50000003 | 48.90000005 | 205.0 | 33514 |
| 27 | 19.02805556 | 47.06111111 | 153.0 | 44121 |
| 28 | 17.67472226 | 47.71000004 | 117.0 | 23703 |
| 29 | 20.53611114 | 48.49527780 | 309.0 | 51705 |
| 30 | 20.01666667 | 47.86666671 | 1011.0 | 53101 |
| 31 | 17.26722224 | 47.88972227 | 121.0 | 23201 |
| 32 | 21.65888892 | 48.38083335 | 100.0 | 61709 |
| 33 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 34 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 35 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 36 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 37 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 38 | 20.41833336 | 49.69361115 | 515.0 | 6605 |
| 39 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 40 | 17.70777781 | 48.90277782 | 383.0 | 11779 |
| 41 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 42 | 18.24055557 | 49.54111114 | 436.0 | 11785 |
| 43 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 44 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 4.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 3 | 3 | 73.79 | 11 | 11 | 51.67 | 10 | 10 | 49.55 |
| 31 | 31 | 49.24 | 7 | 7 | 48.36 | 8 | 8 | 44.78 |
| 18 | 18 | 43.52 | 12 | 12 | 39.72 | 29 | 29 | 38.37 |
| 14 | 14 | 37.91 | 1 | 1 | 37.66 | 26 | 26 | 37.10 |
| 6 | 6 | 35.89 | 16 | 16 | 35.13 | 28 | 28 | 33.40 |
| 27 | 27 | 29.73 | 2 | 2 | 29.02 | 5 | 5 | 25.74 |
| 9 | 9 | 25.02 | 4 | 4 | 24.35 | 24 | 24 | 21.43 |
| 22 | 22 | 20.74 | 30 | 30 | 19.68 | 23 | 23 | 18.56 |
| 19 | 19 | 17.48 | 13 | 13 | 17.06 | 21 | 21 | 16.28 |
| 25 | 25 | 14.76 | 20 | 20 | 14.03 | 15 | 15 | 12.34 |
| 17 | 17 | 9.82 | | | | | | |
| AVERAGE: | | 31.36 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11 | 11 | 222.03 | 12 | 12 | 208.20 | 10 | 10 | 161.50 |
| 1 | 1 | 127.87 | 3 | 3 | 127.51 | 24 | 24 | 118.69 |
| 31 | 31 | 105.87 | 16 | 16 | 104.72 | 4 | 4 | 79.50 |
| 26 | 26 | 70.72 | 14 | 14 | 64.25 | 7 | 7 | 63.05 |
| 18 | 18 | 60.43 | 19 | 19 | 57.90 | 28 | 28 | 51.27 |
| 13 | 13 | 50.44 | 8 | 8 | 49.72 | 5 | 5 | 49.04 |
| 27 | 27 | 48.35 | 20 | 20 | 47.04 | 2 | 2 | 47.01 |
| 29 | 29 | 44.12 | 23 | 23 | 36.44 | 6 | 6 | 35.01 |
| 25 | 25 | 32.34 | 22 | 22 | 27.09 | 9 | 9 | 25.19 |
| 21 | 21 | 24.48 | 30 | 30 | 14.29 | 15 | 15 | 13.36 |
| 17 | 17 | 6.19 | | | | | | |
| AVERAGE: | | 70.12 | | | | | | |

Table 4.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 29 | 29 | 0.23 | 25 | 25 | 0.24 | 7 | 7 | 0.28 |
| 16 | 16 | 0.31 | 21 | 21 | 0.33 | 28 | 28 | 0.35 |
| 18 | 18 | 0.37 | 22 | 22 | 0.38 | 12 | 12 | 0.38 |
| 17 | 17 | 0.38 | 14 | 14 | 0.38 | 10 | 10 | 0.39 |
| 26 | 26 | 0.39 | 27 | 27 | 0.40 | 30 | 30 | 0.40 |
| 23 | 23 | 0.42 | 24 | 24 | 0.46 | 9 | 9 | 0.48 |
| 5 | 5 | 0.49 | 8 | 8 | 0.49 | 13 | 13 | 0.49 |
| 6 | 6 | 0.51 | 15 | 15 | 0.52 | 4 | 4 | 0.53 |
| 1 | 1 | 0.53 | 31 | 31 | 0.58 | 11 | 11 | 0.61 |
| 2 | 2 | 0.62 | 20 | 20 | 0.63 | 3 | 3 | 0.63 |
| 19 | 19 | 0.68 | | | | | | |
| AVERAGE: | | 0.45 | | | | | | |

Table 4.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| | | | |
|----|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 19.09527778 | 50.08500000 | 255.0 |
| 11 | 19.95861116 | 50.06416667 | 206.0 |
| 12 | 20.41833336 | 49.69361115 | 515.0 |
| 13 | 17.57000003 | 49.32000002 | 222.0 |
| 14 | 17.71000004 | 48.90000005 | 383.0 |
| 15 | 17.54000003 | 49.78000004 | 749.0 |
| 16 | 18.24000001 | 49.54000003 | 436.0 |
| 17 | 18.45000002 | 49.55000003 | 1322.0 |
| 18 | 18.12000001 | 49.70000004 | 250.0 |
| 19 | 23.63333337 | 50.25000001 | 252.0 |
| 20 | 23.38333335 | 49.95000005 | 245.0 |
| 21 | 23.16666668 | 49.80000004 | 232.0 |
| 22 | 23.56694447 | 49.36222224 | 275.0 |
| 23 | 23.03333334 | 49.15000001 | 594.0 |
| 24 | 22.46666669 | 48.90000005 | 205.0 |
| 25 | 18.76583337 | 49.43611113 | 468.0 |
| 26 | 19.18305556 | 49.36833335 | 780.0 |
| 27 | 19.72527782 | 49.03916667 | 640.0 |
| 28 | 19.91055560 | 49.14000001 | 972.0 |
| 29 | 20.84277782 | 49.26027779 | 485.0 |
| 30 | 21.91388894 | 49.25333335 | 305.0 |
| 31 | 22.00611111 | 48.93888894 | 176.0 |

Table 4.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 14 | 14 | 88.70 | 6 | 6 | 43.06 | 9 | 9 | 42.46 |
| 7 | 7 | 40.90 | 2 | 2 | 38.88 | 16 | 16 | 37.96 |
| 15 | 15 | 33.80 | 1 | 1 | 33.43 | 12 | 12 | 32.06 |
| 11 | 11 | 27.83 | 8 | 8 | 27.42 | 4 | 4 | 26.91 |
| 10 | 10 | 24.23 | 13 | 13 | 15.19 | 3 | 3 | 14.36 |
| 5 | 5 | 9.82 | | | | | | |
| AVERAGE: | | 33.56 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 10 | 10 | 164.15 | 14 | 14 | 127.55 | 15 | 15 | 112.56 |
| 7 | 7 | 110.84 | 4 | 4 | 110.53 | 2 | 2 | 95.34 |
| 1 | 1 | 94.83 | 17 | 17 | 77.01 | 6 | 6 | 60.43 |
| 16 | 16 | 51.47 | 9 | 9 | 40.78 | 8 | 8 | 32.18 |
| 12 | 12 | 32.06 | 11 | 11 | 30.13 | 13 | 13 | 24.09 |
| 3 | 3 | 15.95 | 5 | 5 | 12.33 | | | |
| AVERAGE: | | 70.13 | | | | | | |

Table 4.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 14 | 14 | 0.30 | 4 | 4 | 0.31 | 12 | 12 | 0.31 |
| 6 | 6 | 0.37 | 5 | 5 | 0.38 | 7 | 7 | 0.42 |
| 8 | 8 | 0.42 | 2 | 2 | 0.43 | 1 | 1 | 0.47 |
| 16 | 16 | 0.47 | 15 | 15 | 0.47 | 3 | 3 | 0.53 |
| 11 | 11 | 0.54 | 13 | 13 | 0.55 | 9 | 9 | 0.59 |
| 10 | 10 | 0.59 | | | | | | |
| AVERAGE: | | 0.45 | | | | | | |

Table 4.7c. Station parameters of the series system of Czech Republic and near border series from Slovakia, Poland

| | | | |
|----|-------------|-------------|--------|
| 1 | 17.57000003 | 49.32000002 | 222.0 |
| 2 | 17.71000004 | 48.90000005 | 383.0 |
| 3 | 17.54000003 | 49.78000004 | 749.0 |
| 4 | 18.24000001 | 49.54000003 | 436.0 |
| 5 | 18.45000002 | 49.55000003 | 1322.0 |
| 6 | 18.12000001 | 49.70000004 | 250.0 |
| 7 | 18.02916667 | 48.89694449 | 209.0 |
| 8 | 17.57805559 | 48.75055559 | 409.0 |
| 9 | 17.11055556 | 48.16861112 | 287.0 |
| 10 | 17.68055559 | 48.49194447 | 178.0 |
| 11 | 18.19416668 | 47.87305560 | 115.0 |
| 12 | 18.77527782 | 49.43916669 | 423.0 |
| 13 | 18.59388892 | 48.76972226 | 260.0 |
| 14 | 19.18305556 | 49.36833335 | 780.0 |
| 15 | 18.19166668 | 50.06166667 | 206.0 |
| 16 | 19.00111111 | 49.80805560 | 398.0 |
| 17 | 18.92027783 | 49.99638894 | 270.0 |

Annex 5. Cloud Cover

Table 5.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| palic | 50 | 164.60 | uzhgo | 60 | 91.06 | 66519 | 40 | 87.59 |
| orade | 54 | 84.81 | sombo | 51 | 82.23 | lucen | 63 | 81.44 |
| arad | 53 | 80.67 | brati | 61 | 61.62 | 51705 | 28 | 53.28 |
| 44214 | 23 | 53.09 | 16203 | 5 | 51.91 | 57311 | 34 | 50.41 |
| 52819 | 29 | 47.86 | 34211 | 15 | 45.43 | bjelo | 42 | 45.19 |
| valpo | 48 | 40.42 | 47106 | 26 | 40.38 | 16414 | 6 | 39.57 |
| kikin | 52 | 37.73 | 17809 | 8 | 37.45 | 36500 | 18 | 37.30 |
| 43613 | 21 | 35.06 | 28700 | 14 | 34.02 | satu | 57 | 33.18 |
| 58113 | 35 | 32.63 | sanni | 56 | 32.45 | 73302 | 41 | 32.35 |
| 48101 | 27 | 32.35 | 15307 | 4 | 32.26 | 58300 | 36 | 31.79 |
| milho | 66 | 31.63 | 26505 | 12 | 31.25 | 25212 | 11 | 29.28 |
| 23201 | 9 | 29.21 | 36407 | 17 | 28.98 | 39113 | 20 | 28.81 |
| daruv | 43 | 27.84 | kosic | 65 | 27.62 | djurd | 44 | 27.32 |
| 14706 | 3 | 27.12 | 23703 | 10 | 26.48 | 17308 | 7 | 24.80 |
| stos | 64 | 24.10 | 36100 | 16 | 24.08 | 16601 | 1 | 23.54 |
| 63411 | 38 | 23.00 | khust | 59 | 21.35 | donji | 45 | 20.80 |
| 38605 | 19 | 20.58 | 13703 | 2 | 20.06 | backi | 49 | 19.93 |
| hurba | 62 | 19.64 | bereg | 58 | 19.16 | sacui | 55 | 17.36 |
| slavo | 47 | 16.97 | 64704 | 39 | 16.31 | 44121 | 22 | 15.61 |
| osije | 46 | 15.01 | 53101 | 30 | 14.97 | 53521 | 31 | 13.93 |
| 56300 | 33 | 13.57 | 46303 | 25 | 13.52 | 27815 | 13 | 13.48 |
| 61709 | 37 | 12.47 | 44527 | 24 | 11.16 | 55502 | 32 | 11.06 |
| AVERAGE: | | 35.94 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| 63411 | 38 | 1827.39 | milho | 66 | 1312.85 | 28700 | 14 | 1247.28 |
| 57311 | 34 | 1161.67 | 66519 | 40 | 1115.16 | 44214 | 23 | 946.20 |
| 16203 | 5 | 814.05 | arad | 53 | 790.32 | 64704 | 39 | 741.81 |
| 38605 | 19 | 738.04 | palic | 50 | 615.15 | valpo | 48 | 607.53 |
| 52819 | 29 | 573.73 | 44121 | 22 | 499.54 | 16414 | 6 | 498.19 |
| 47106 | 26 | 467.97 | 56300 | 33 | 444.95 | bjelo | 42 | 441.85 |
| 17809 | 8 | 432.18 | 34211 | 15 | 417.57 | stos | 64 | 397.40 |
| uzhgo | 60 | 370.50 | 36100 | 16 | 355.94 | 26505 | 12 | 344.15 |
| 16601 | 1 | 333.39 | lucen | 63 | 302.00 | orade | 54 | 299.92 |
| 23201 | 9 | 274.49 | 73302 | 41 | 264.86 | 27815 | 13 | 264.76 |
| 58300 | 36 | 202.05 | 53521 | 31 | 195.50 | 55502 | 32 | 172.79 |
| 17308 | 7 | 172.10 | 48101 | 27 | 151.51 | 14706 | 3 | 144.75 |
| 43613 | 21 | 144.40 | slavo | 47 | 143.83 | 51705 | 28 | 127.49 |
| daruv | 43 | 122.70 | 13703 | 2 | 119.62 | donji | 45 | 118.39 |
| 23703 | 10 | 112.87 | 36407 | 17 | 108.51 | djurd | 44 | 99.02 |
| satu | 57 | 93.04 | kikin | 52 | 91.20 | 25212 | 11 | 87.59 |
| 61709 | 37 | 85.86 | brati | 61 | 83.84 | hurba | 62 | 82.11 |
| sombo | 51 | 76.09 | osije | 46 | 70.49 | bereg | 58 | 70.05 |
| 46303 | 25 | 66.76 | 53101 | 30 | 65.62 | kosic | 65 | 63.59 |
| sanni | 56 | 62.25 | khust | 59 | 61.22 | 15307 | 4 | 59.56 |
| 44527 | 24 | 58.41 | 36500 | 18 | 53.42 | 39113 | 20 | 44.42 |
| backi | 49 | 40.56 | sacui | 55 | 36.81 | 58113 | 35 | 35.14 |
| AVERAGE: | | 339.76 | | | | | | |

Table 5.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| bereg | 58 | 0.44 | 61709 | 37 | 0.44 | 53521 | 31 | 0.55 |
| 51705 | 28 | 0.56 | 53101 | 30 | 0.57 | brati | 61 | 0.57 |
| 23201 | 9 | 0.60 | 58300 | 36 | 0.60 | 14706 | 3 | 0.62 |
| backi | 49 | 0.63 | 46303 | 25 | 0.63 | 28700 | 14 | 0.65 |
| 34211 | 15 | 0.65 | 44121 | 22 | 0.66 | slavo | 47 | 0.66 |
| 17308 | 7 | 0.66 | 47106 | 26 | 0.66 | 43613 | 21 | 0.68 |
| stos | 64 | 0.68 | lucen | 63 | 0.69 | khust | 59 | 0.69 |
| osi je | 46 | 0.69 | 36500 | 18 | 0.69 | 25212 | 11 | 0.69 |
| milho | 66 | 0.69 | 16601 | 1 | 0.70 | 13703 | 2 | 0.71 |
| 44214 | 23 | 0.71 | 57311 | 34 | 0.71 | uzhgo | 60 | 0.71 |
| 27815 | 13 | 0.72 | 56300 | 33 | 0.72 | 52819 | 29 | 0.73 |
| 73302 | 41 | 0.73 | kosic | 65 | 0.73 | 44527 | 24 | 0.73 |
| sacui | 55 | 0.74 | 55502 | 32 | 0.74 | valpo | 48 | 0.74 |
| hurba | 62 | 0.74 | orade | 54 | 0.74 | 36407 | 17 | 0.74 |
| 23703 | 10 | 0.75 | 38605 | 19 | 0.75 | arad | 53 | 0.75 |
| donji | 45 | 0.76 | sombo | 51 | 0.76 | djurd | 44 | 0.76 |
| 64704 | 39 | 0.77 | 15307 | 4 | 0.78 | 66519 | 40 | 0.78 |
| satu | 57 | 0.78 | bjelo | 42 | 0.79 | sanni | 56 | 0.79 |
| 58113 | 35 | 0.79 | kikin | 52 | 0.79 | palic | 50 | 0.80 |
| 36100 | 16 | 0.80 | daruv | 43 | 0.81 | 39113 | 20 | 0.81 |
| 48101 | 27 | 0.81 | 17809 | 8 | 0.82 | 16414 | 6 | 0.82 |
| 63411 | 38 | 0.83 | 26505 | 12 | 0.83 | 16203 | 5 | 0.84 |
| AVERAGE: | | 0.71 | | | | | | |

Table 5.1c. Station parameters of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

| index | lambda | fi | h | station | country |
|-------|-------------|-------------|-------|--------------------------------|---------|
| 1 | 16.08083333 | 47.03083333 | 269.0 | 16601 Fürstenfeld | AU |
| 2 | 16.60222222 | 47.67833333 | 233.8 | 13703 Sopron Kuruc-domb | HU |
| 3 | 16.72916666 | 47.48138888 | 198.9 | 14706 Sopronhorpács | HU |
| 4 | 16.64777777 | 47.19833333 | 201.1 | 15307 Szombathely | HU |
| 5 | 16.30944444 | 46.91027777 | 311.7 | 16203 Szentgotthárd Farkasfa | HU |
| 6 | 16.81280000 | 46.92580000 | 240.1 | 16414 Zalaegerszeg Nagyktutas | HU |
| 7 | 16.61305555 | 46.60555555 | 165.3 | 17308 Iklódbördőce | HU |
| 8 | 16.97060000 | 46.45610000 | 139.8 | 17809 Nagykanizsa | HU |
| 9 | 17.26720000 | 47.88970000 | 121.0 | 23201 Mosonmagyaróvár | HU |
| 10 | 17.67470000 | 47.71000000 | 116.7 | 23703 Győr Likócs | HU |
| 11 | 17.37220000 | 47.29220000 | 135.5 | 25212 Pápa Nyárád | HU |
| 12 | 17.23860000 | 46.73560000 | 111.7 | 26505 Keszthely Tanyakereszt | HU |
| 13 | 17.87380000 | 46.36270000 | 129.5 | 27815 Kaposvár | HU |
| 14 | 17.52690000 | 46.10330000 | 159.0 | 28700 Homokszentgyörgy | HU |
| 15 | 18.31080000 | 47.65170000 | 123.8 | 34211 Tata | HU |
| 16 | 18.04080000 | 46.91080000 | 108.2 | 36100 Siófok | HU |
| 17 | 18.95220000 | 46.95060000 | 147.7 | 36407 Dunaújváros | HU |
| 18 | 18.18360000 | 46.68560000 | 165.0 | 36500 Iregszemcse | HU |
| 19 | 18.25220000 | 46.13470000 | 395.7 | 38605 Pécs Árpádtető | HU |
| 20 | 18.23500000 | 45.99500000 | 200.2 | 39113 Pécs Pogány | HU |
| 21 | 19.28360000 | 47.79000000 | 242.9 | 43613 Penc | HU |
| 22 | 19.02810000 | 47.51110000 | 153.3 | 44121 Budapest belterület | HU |
| 23 | 19.47640000 | 47.65560000 | 162.4 | 44214 Aszód | HU |
| 24 | 19.18220000 | 47.42920000 | 139.1 | 44527 Budapest Pestszentlőrinc | HU |
| 25 | 19.74830000 | 46.91310000 | 114.0 | 46303 Kecskemét külterület | HU |
| 26 | 19.09890000 | 46.51030000 | 93.6 | 47106 Kalocsa Öregcsertő | HU |
| 27 | 19.01670000 | 46.18330000 | 113.0 | 48101 Baja Csávoly | HU |
| 28 | 20.53610000 | 48.49530000 | 308.9 | 51705 Jósavafő | HU |
| 29 | 20.77140000 | 48.09690000 | 232.8 | 52819 Miskolc Avas | HU |
| 30 | 20.01670000 | 47.86670000 | 111.3 | 53101 Kékestető | HU |
| 31 | 20.23580000 | 47.73970000 | 123.3 | 53521 Kompolt | HU |
| 32 | 20.20000000 | 47.12860000 | 90.0 | 55502 Szolnok Szandaszőlős | HU |
| 33 | 20.52780000 | 46.86940000 | 85.4 | 56300 Szarvas | HU |
| 34 | 20.68750000 | 46.54420000 | 88.8 | 57311 Orosháza | HU |

| | | | | | | |
|----|-------------|-------------|-------|-------|--------------------|----|
| 35 | 20.09030000 | 46.25610000 | 81.8 | 58113 | Szeged külterület | HU |
| 36 | 20.73670000 | 46.31720000 | 94.8 | 58300 | Pitvaros | HU |
| 37 | 21.65890000 | 48.38080000 | 100.4 | 61709 | Sátoraljaújhely | HU |
| 38 | 21.88690000 | 47.96220000 | 142.1 | 63411 | Nyíregyháza Napkor | HU |
| 39 | 21.61080000 | 47.49030000 | 107.6 | 64704 | Debrecen | HU |
| 40 | 21.16060000 | 46.67940000 | 84.0 | 66519 | Békéscsaba | HU |
| 41 | 22.62560000 | 47.86220000 | 118.3 | 73302 | Pátyod | HU |
| 42 | 16.85000000 | 45.91700000 | 141.0 | bjelo | Bjelovar | CR |
| 43 | 17.23300000 | 45.60000000 | 161.0 | daruv | Daruvar | CR |
| 44 | 17.06700000 | 46.05000000 | 121.0 | djurd | Djurdjevac | CR |
| 45 | 18.16700000 | 45.76700000 | 97.0 | donji | Donji Miholjac | CR |
| 46 | 18.63300000 | 45.53300000 | 89.0 | osije | Osijek | CR |
| 47 | 18.00000000 | 45.16600000 | 88.0 | slavo | Slavonski Brod | CR |
| 48 | 18.35000000 | 45.66700000 | 92.0 | valpo | Valpovo | CR |
| 49 | 19.67050000 | 45.33660000 | 85.0 | backi | Backi Petrovac | RS |
| 50 | 19.76410000 | 46.09720000 | 102.0 | palic | Palic | RS |
| 51 | 19.14310000 | 45.76700000 | 87.0 | sombo | Sombor | RS |
| 52 | 20.46460000 | 45.84260000 | 80.0 | kikin | Kikinda | RS |
| 53 | 21.35362152 | 46.13351640 | 117.0 | arad | Arad | RO |
| 54 | 21.89592406 | 47.03570901 | 136.0 | orade | Oradea | RO |
| 55 | 22.09450716 | 47.34415862 | 124.0 | sacui | Sacuieni | RO |
| 56 | 20.60156003 | 46.07128625 | 85.0 | sanni | Sannicolau | RO |
| 57 | 22.88714903 | 47.72148469 | 128.0 | satu | Satu Mare | RO |
| 58 | 22.60000000 | 48.20000000 | 113.0 | bereg | Bereg | UA |
| 59 | 23.30000000 | 48.20000000 | 164.0 | khust | Khust | UA |
| 60 | 22.30000000 | 48.60000000 | 115.0 | uzhgo | Uzhgorod | UA |
| 61 | 17.11060000 | 48.16860000 | 287.0 | brati | Bratislava-Koliba | SK |
| 62 | 18.19420000 | 47.87310000 | 115.0 | hurba | Hurbanovo | SK |
| 63 | 19.73600000 | 48.33900000 | 214.0 | lucen | Lucenec-Bolkovce | SK |
| 64 | 20.79750000 | 48.71810000 | 580.0 | stos | Stos | SK |
| 65 | 21.22250000 | 48.67220000 | 230.0 | kosic | Kosice-Letisko | SK |
| 66 | 21.72400000 | 48.66300000 | 105.0 | milho | Milhostov | SK |

Table 5.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| SE | 29 | 197.12 | VS | 18 | 182.24 | CA | 12 | 155.58 |
| TI | 6 | 148.21 | PA | 13 | 143.14 | NE | 27 | 136.72 |
| ZA | 38 | 116.77 | TS | 10 | 102.90 | SM | 20 | 90.69 |
| BJ | 3 | 89.59 | KI | 17 | 83.51 | ZR | 16 | 82.44 |
| BC | 31 | 76.78 | KV | 35 | 63.69 | SU | 22 | 60.23 |
| ZG | 32 | 57.23 | BN | 7 | 55.87 | CU | 37 | 54.30 |
| KG | 24 | 53.28 | VG | 26 | 51.48 | PO | 34 | 49.19 |
| LJ | 30 | 48.56 | SP | 25 | 48.16 | SO | 14 | 46.95 |
| VL | 2 | 41.71 | BG | 23 | 41.13 | BL | 11 | 39.83 |
| ZL | 33 | 38.75 | BP | 28 | 37.41 | SC | 9 | 34.35 |
| BB | 39 | 34.27 | LO | 19 | 33.96 | SN | 5 | 31.19 |
| SZ | 4 | 28.40 | OR | 8 | 23.53 | OS | 1 | 20.38 |
| NS | 15 | 19.90 | KS | 36 | 18.56 | VA | 21 | 15.23 |
| AVERAGE: | | 68.03 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| SE | 29 | 6379.88 | ZA | 38 | 574.52 | TI | 6 | 496.32 |
| VL | 2 | 484.32 | VS | 18 | 316.59 | CA | 12 | 291.31 |
| TS | 10 | 290.01 | BN | 7 | 266.98 | PA | 13 | 250.89 |
| VG | 26 | 242.35 | KI | 17 | 210.47 | SP | 25 | 170.56 |
| BJ | 3 | 155.30 | NE | 27 | 154.89 | ZG | 32 | 141.22 |
| ZR | 16 | 137.96 | BC | 31 | 137.42 | SM | 20 | 128.97 |
| OS | 1 | 128.96 | KV | 35 | 114.73 | KS | 36 | 112.00 |
| BG | 23 | 108.03 | SC | 9 | 97.71 | SU | 22 | 88.62 |
| CU | 37 | 86.14 | SO | 14 | 85.40 | BP | 28 | 81.52 |
| BB | 39 | 80.65 | LJ | 30 | 79.90 | OR | 8 | 68.84 |
| KG | 24 | 65.18 | ZL | 33 | 62.79 | SN | 5 | 57.21 |
| PO | 34 | 54.21 | NS | 15 | 51.96 | BL | 11 | 48.94 |
| SZ | 4 | 33.55 | VA | 21 | 32.96 | LO | 19 | 21.77 |
| AVERAGE: | | 317.72 | | | | | | |

Table 5.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| BB | 39 | 0.54 | SC | 9 | 0.59 | SE | 29 | 0.59 |
| ZG | 32 | 0.64 | ZL | 33 | 0.64 | BC | 31 | 0.66 |
| OS | 1 | 0.69 | BP | 28 | 0.70 | LJ | 30 | 0.71 |
| VL | 2 | 0.71 | KS | 36 | 0.72 | CA | 12 | 0.73 |
| BN | 7 | 0.75 | LO | 19 | 0.75 | PO | 34 | 0.75 |
| BL | 11 | 0.76 | ZA | 38 | 0.76 | OR | 8 | 0.76 |
| SO | 14 | 0.76 | ZR | 16 | 0.78 | KI | 17 | 0.78 |
| TS | 10 | 0.78 | SN | 5 | 0.79 | CU | 37 | 0.79 |
| BJ | 3 | 0.79 | SZ | 4 | 0.79 | NE | 27 | 0.79 |
| PA | 13 | 0.80 | VA | 21 | 0.80 | VG | 26 | 0.80 |
| BG | 23 | 0.80 | VS | 18 | 0.80 | KG | 24 | 0.81 |
| KV | 35 | 0.81 | NS | 15 | 0.82 | TI | 6 | 0.83 |
| SP | 25 | 0.83 | SM | 20 | 0.83 | SU | 22 | 0.84 |
| AVERAGE: | | 0.75 | | | | | | |

The Stations are the same as at Table 1.2c.

Table 5.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 523530 | 43 | 190.44 | 13295 | 102 | 173.34 | 517507 | 40 | 171.81 |
| 506422 | 32 | 140.95 | 642540 | 78 | 135.60 | 634322 | 75 | 122.11 |
| 438238 | 20 | 115.48 | 747356 | 93 | 110.41 | 656621 | 82 | 108.83 |
| 359257 | 5 | 97.74 | 425606 | 16 | 95.42 | 703156 | 83 | 93.21 |
| 541601 | 55 | 92.52 | 557334 | 63 | 90.67 | 509441 | 34 | 90.06 |
| 523703 | 44 | 88.02 | 525358 | 47 | 83.63 | 538416 | 52 | 81.81 |
| 546115 | 57 | 81.78 | 527527 | 48 | 81.48 | 417530 | 15 | 80.39 |
| 346452 | 1 | 79.40 | 13183 | 104 | 77.91 | 553254 | 62 | 77.05 |
| 66519 | 95 | 75.06 | 452452 | 24 | 73.03 | 412721 | 11 | 72.19 |
| 507158 | 33 | 69.25 | 600608 | 64 | 68.89 | 407500 | 9 | 68.82 |
| 710736 | 86 | 67.70 | 57311 | 97 | 67.68 | 606705 | 66 | 63.09 |
| 632432 | 74 | 62.57 | 444417 | 22 | 62.07 | 509649 | 35 | 61.93 |
| 541154 | 54 | 61.84 | 502317 | 31 | 61.30 | 401321 | 7 | 59.62 |
| 502141 | 30 | 59.11 | 2802 | 100 | 58.95 | 739615 | 90 | 56.34 |
| 414352 | 13 | 56.31 | 523108 | 41 | 55.87 | 501252 | 29 | 55.54 |
| 617637 | 71 | 55.50 | 525323 | 46 | 55.44 | 551716 | 61 | 54.88 |
| 614740 | 70 | 54.85 | 722657 | 88 | 54.62 | 33658 | 107 | 54.57 |
| 530801 | 51 | 54.23 | 639744 | 77 | 53.40 | 349835 | 3 | 52.94 |
| 428307 | 17 | 51.76 | 523328 | 42 | 50.97 | 646247 | 79 | 50.25 |
| 352557 | 4 | 50.05 | 347357 | 2 | 49.46 | 428632 | 18 | 48.74 |
| 445718 | 23 | 48.33 | 632130 | 73 | 46.70 | 635658 | 76 | 46.09 |
| 608121 | 67 | 46.04 | 530535 | 50 | 45.98 | 748253 | 94 | 45.80 |
| 614436 | 69 | 44.94 | 551459 | 59 | 43.78 | 709352 | 85 | 43.58 |
| 453344 | 25 | 42.95 | 430608 | 19 | 42.68 | 406421 | 8 | 42.47 |
| 741640 | 92 | 41.15 | 13174 | 101 | 40.46 | 711305 | 87 | 39.05 |
| 13285 | 103 | 38.06 | 525215 | 45 | 37.97 | 408800 | 10 | 37.54 |
| 511349 | 37 | 37.12 | 551621 | 60 | 36.89 | 737439 | 89 | 36.41 |
| 542532 | 56 | 36.18 | 58300 | 99 | 35.97 | 622544 | 72 | 35.94 |
| 539357 | 53 | 34.90 | 528518 | 49 | 34.24 | 740330 | 91 | 34.22 |
| 443639 | 21 | 33.69 | 456526 | 26 | 33.53 | 457600 | 27 | 33.09 |
| 611355 | 68 | 31.60 | 647334 | 80 | 31.60 | 604037 | 65 | 31.19 |
| 656555 | 81 | 31.01 | 548409 | 58 | 26.83 | 33657 | 110 | 24.67 |
| 509940 | 36 | 24.57 | 500432 | 28 | 23.50 | 33647 | 109 | 23.20 |
| 415816 | 14 | 23.11 | 33634 | 106 | 21.67 | 413838 | 12 | 20.27 |
| 515231 | 39 | 19.76 | 359521 | 6 | 19.22 | 511849 | 38 | 18.55 |
| 73302 | 98 | 18.49 | 13173 | 105 | 18.14 | 64704 | 96 | 18.01 |
| 33638 | 108 | 16.95 | 708430 | 84 | 12.05 | | | |
| AVERAGE: | | 57.63 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|---------|--------|-------|--------|--------|-------|--------|
| 642540 | 78 | 1117.23 | 517507 | 40 | 756.83 | 66519 | 95 | 742.51 |
| 425606 | 16 | 687.07 | 525358 | 47 | 591.94 | 509441 | 34 | 554.47 |
| 553254 | 62 | 510.73 | 73302 | 98 | 493.83 | 57311 | 97 | 456.22 |
| 64704 | 96 | 431.48 | 557334 | 63 | 425.31 | 13183 | 104 | 390.80 |
| 445718 | 23 | 389.62 | 506422 | 32 | 383.75 | 438238 | 20 | 360.46 |
| 456526 | 26 | 348.34 | 634322 | 75 | 346.97 | 608121 | 67 | 340.95 |
| 523530 | 43 | 324.75 | 722657 | 88 | 312.59 | 747356 | 93 | 298.73 |
| 523108 | 41 | 291.94 | 500432 | 28 | 289.54 | 541601 | 55 | 287.22 |
| 606705 | 66 | 282.49 | 407500 | 9 | 281.23 | 614740 | 70 | 266.97 |
| 656621 | 82 | 248.34 | 523703 | 44 | 247.61 | 346452 | 1 | 244.56 |

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|-----------------------------|-----|--------|---------------------------|-----|--------|-------------------------|-----|-------------------|
| 639744 | 77 | 232.46 | 703156 | 83 | 220.99 | 502141 | 30 | 219.92 |
| 417530 | 15 | 219.82 | 748253 | 94 | 216.06 | 546115 | 57 | 214.26 |
| 13285 | 103 | 206.03 | 414352 | 13 | 204.24 | 58300 | 99 | 197.76 |
| 443639 | 21 | 193.24 | 412721 | 11 | 189.18 | 525323 | 46 | 185.49 |
| 13295 | 102 | 185.00 | 527527 | 48 | 176.16 | 539357 | 53 | 176.03 |
| 401321 | 7 | 171.56 | 530535 | 50 | 171.07 | 33657 | 110 | 170.07 |
| 541154 | 54 | 168.80 | 359257 | 5 | 158.42 | 600608 | 64 | 158.02 |
| 632432 | 74 | 154.70 | 415816 | 14 | 150.47 | 622544 | 72 | 149.51 |
| 507158 | 33 | 149.34 | 444417 | 22 | 147.28 | 502317 | 31 | 142.20 |
| 349835 | 3 | 141.58 | 710736 | 86 | 132.28 | 551716 | 61 | 130.01 |
| 538416 | 52 | 127.61 | 452452 | 24 | 124.30 | 2802 | 100 | 122.10 |
| 430608 | 19 | 121.98 | 408800 | 10 | 117.19 | 530801 | 51 | 111.87 |
| 646247 | 79 | 110.55 | 635658 | 76 | 106.04 | 509649 | 35 | 99.81 |
| 501252 | 29 | 98.78 | 406421 | 8 | 94.87 | 352557 | 4 | 93.44 |
| 33647 | 109 | 93.22 | 453344 | 25 | 88.64 | 33634 | 106 | 87.29 |
| 740330 | 91 | 84.69 | 359521 | 6 | 82.28 | 739615 | 90 | 82.21 |
| 617637 | 71 | 81.57 | 523328 | 42 | 81.53 | 737439 | 89 | 79.97 |
| 548409 | 58 | 77.68 | 511349 | 37 | 77.39 | 33638 | 108 | 75.91 |
| 647334 | 80 | 72.90 | 428632 | 18 | 72.64 | 542532 | 56 | 68.57 |
| 528518 | 49 | 64.30 | 347357 | 2 | 62.97 | 611355 | 68 | 60.49 |
| 33658 | 107 | 60.48 | 709352 | 85 | 59.71 | 428307 | 17 | 59.06 |
| 711305 | 87 | 58.00 | 551459 | 59 | 57.99 | 604037 | 65 | 57.37 |
| 457600 | 27 | 55.50 | 741640 | 92 | 55.13 | 632130 | 73 | 51.54 |
| 413838 | 12 | 51.26 | 525215 | 45 | 47.60 | 13174 | 101 | 43.98 |
| 614436 | 69 | 43.98 | 13173 | 105 | 42.83 | 509940 | 36 | 39.49 |
| 551621 | 60 | 37.77 | 656555 | 81 | 36.93 | 515231 | 39 | 31.87 |
| 511849 | 38 | 22.11 | 708430 | 84 | 16.27 | | | |
| AVERAGE: | | 197.16 | | | | | | |

Table 5.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 656555 | 81 | 0.41 | 33634 | 106 | 0.44 | 737439 | 89 | 0.56 |
| 509940 | 36 | 0.58 | 527527 | 48 | 0.59 | 58300 | 99 | 0.59 |
| 515231 | 39 | 0.59 | 33658 | 107 | 0.61 | 622544 | 72 | 0.61 |
| 33657 | 110 | 0.62 | 551621 | 60 | 0.63 | 646247 | 79 | 0.64 |
| 539357 | 53 | 0.66 | 525358 | 47 | 0.66 | 2802 | 100 | 0.66 |
| 57311 | 97 | 0.66 | 349835 | 3 | 0.67 | 722657 | 88 | 0.67 |
| 709352 | 85 | 0.68 | 33647 | 109 | 0.69 | 634322 | 75 | 0.69 |
| 617637 | 71 | 0.69 | 408800 | 10 | 0.70 | 541601 | 55 | 0.70 |
| 647334 | 80 | 0.71 | 13173 | 105 | 0.71 | 352557 | 4 | 0.71 |
| 656621 | 82 | 0.71 | 553254 | 62 | 0.71 | 428632 | 18 | 0.71 |
| 413838 | 12 | 0.71 | 632130 | 73 | 0.71 | 443639 | 21 | 0.72 |
| 511849 | 38 | 0.72 | 525323 | 46 | 0.72 | 415816 | 14 | 0.72 |
| 523703 | 44 | 0.72 | 551459 | 59 | 0.73 | 73302 | 98 | 0.73 |
| 538416 | 52 | 0.74 | 642540 | 78 | 0.74 | 542532 | 56 | 0.74 |
| 551716 | 61 | 0.74 | 614740 | 70 | 0.74 | 632432 | 74 | 0.74 |
| 600608 | 64 | 0.74 | 557334 | 63 | 0.75 | 708430 | 84 | 0.75 |
| 501252 | 29 | 0.75 | 710736 | 86 | 0.75 | 739615 | 90 | 0.75 |
| 523108 | 41 | 0.75 | 511349 | 37 | 0.75 | 741640 | 92 | 0.75 |
| 523328 | 42 | 0.75 | 530535 | 50 | 0.75 | 507158 | 33 | 0.75 |
| 414352 | 13 | 0.75 | 530801 | 51 | 0.75 | 606705 | 66 | 0.75 |
| 548409 | 58 | 0.76 | 528518 | 49 | 0.76 | 509649 | 35 | 0.76 |
| 347357 | 2 | 0.76 | 64704 | 96 | 0.76 | 33638 | 108 | 0.76 |
| 711305 | 87 | 0.76 | 523530 | 43 | 0.76 | 445718 | 23 | 0.76 |
| 500432 | 28 | 0.77 | 509441 | 34 | 0.77 | 703156 | 83 | 0.77 |
| 13285 | 103 | 0.78 | 13174 | 101 | 0.78 | 359521 | 6 | 0.78 |
| 639744 | 77 | 0.78 | 417530 | 15 | 0.78 | 611355 | 68 | 0.78 |
| 430608 | 19 | 0.78 | 453344 | 25 | 0.78 | 604037 | 65 | 0.79 |
| 747356 | 93 | 0.79 | 457600 | 27 | 0.79 | 66519 | 95 | 0.79 |

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|---------------|-----|------|-------------------|----|--------------|--------|-----------|------|
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| 608121 | 67 | 0.79 | 456526 | 26 | 0.79 | 502141 | 30 | 0.79 |
| 438238 | 20 | 0.79 | 740330 | 91 | 0.79 | 517507 | 40 | 0.79 |
| 13295 | 102 | 0.80 | 541154 | 54 | 0.80 | 525215 | 45 | 0.80 |
| 13183 | 104 | 0.80 | 614436 | 69 | 0.80 | 406421 | 8 | 0.80 |
| 407500 | 9 | 0.80 | 452452 | 24 | 0.80 | 502317 | 31 | 0.80 |
| 359257 | 5 | 0.80 | 635658 | 76 | 0.81 | 412721 | 11 | 0.81 |
| 506422 | 32 | 0.81 | 401321 | 7 | 0.82 | 346452 | 1 | 0.82 |
| 428307 | 17 | 0.82 | 748253 | 94 | 0.82 | 444417 | 22 | 0.83 |
| 425606 | 16 | 0.83 | 546115 | 57 | 0.85 | | | |
| AVERAGE: | | 0.74 | | | | | | |

Table 5.3c. Station parameters of the series system of Romania and near border series from Serbia, Hungary, Ukraine

| index | lambda(x) | fi(y) | St_ID | Station_name |
|-------|-----------|-----------|--------|-----------------|
| 1 | 24.879770 | 43.760420 | 346452 | TURNU MAGURELE |
| 2 | 23.945686 | 43.790056 | 347357 | BECHET |
| 3 | 28.588980 | 43.816470 | 349835 | MANGALIA |
| 4 | 25.934221 | 43.875470 | 352557 | GIURGIU |
| 5 | 22.947569 | 43.985246 | 359257 | CALAFAT |
| 6 | 25.354370 | 43.978290 | 359521 | ALEXANDRIA |
| 7 | 23.332620 | 44.029510 | 401321 | BAILESTI |
| 8 | 24.358813 | 44.100444 | 406421 | CARACAL |
| 9 | 24.980030 | 44.107740 | 407500 | ROSIORII |
| 10 | 27.967130 | 44.088620 | 408800 | ADAMCLISI |
| 11 | 27.339860 | 44.206430 | 412721 | CALARASI |
| 12 | 28.646380 | 44.214090 | 413838 | CONSTANTA |
| 13 | 23.868460 | 44.310600 | 414352 | CRAIOVA |
| 14 | 28.252880 | 44.243560 | 415816 | MEDGIDIA |
| 15 | 25.538540 | 44.283260 | 417530 | VIDELE |
| 16 | 26.095322 | 44.412355 | 425606 | BUCURESTI |
| 17 | 23.114580 | 44.476720 | 428307 | BICLES |
| 18 | 26.525051 | 44.453228 | 428632 | FUNDULEA |
| 19 | 26.079760 | 44.510820 | 430608 | BUCURESTI |
| 20 | 22.627650 | 44.626730 | 438238 | DR. TR. SEVERIN |
| 21 | 26.658560 | 44.721950 | 443639 | URZICENI |
| 22 | 24.238708 | 44.665755 | 444417 | DRAGASANI |
| 23 | 27.295990 | 44.740960 | 445718 | GRIVITA |
| 24 | 24.867460 | 44.849290 | 452452 | PITESTI |
| 25 | 23.710236 | 44.878418 | 453344 | TG. LOGRESTI |
| 26 | 25.427260 | 44.929910 | 456526 | TIRGOVISTE |
| 27 | 25.988990 | 44.956090 | 457600 | PLOIESTI |
| 28 | 24.571790 | 45.016290 | 500432 | DEDULESTI |
| 29 | 22.861054 | 44.997136 | 501252 | PADES |
| 30 | 21.711840 | 45.038960 | 502141 | ORAVITA |
| 31 | 23.260882 | 45.040958 | 502317 | TG. JIU |
| 32 | 24.380980 | 45.089190 | 506422 | RM. VILCEA |
| 33 | 22.057120 | 45.181730 | 507158 | SEMENIC |
| 34 | 24.671280 | 45.179170 | 509441 | CURTEA DE ARGES |
| 35 | 26.853000 | 45.132910 | 509649 | BUZAU |
| 36 | 29.760449 | 45.148694 | 509940 | SULINA |
| 37 | 23.810150 | 45.165870 | 511349 | POLOVRAGI |
| 38 | 28.825690 | 45.190840 | 511849 | TULCEA |
| 39 | 22.534340 | 45.281170 | 515231 | TARCU |
| 40 | 25.038140 | 45.275150 | 517507 | CIMPULUNG |
| 41 | 21.137974 | 45.383051 | 523108 | BANLOC |
| 42 | 23.464622 | 45.387686 | 523328 | PARING |
| 43 | 25.515713 | 45.355256 | 523530 | SINAIA(1500) |
| 44 | 27.040160 | 45.390750 | 523703 | RM. SARAT |
| 45 | 22.226840 | 45.417560 | 525215 | CARANSEBES |
| 46 | 23.378254 | 45.406610 | 525323 | PETROSANI |
| 47 | 23.968553 | 45.411503 | 525358 | VOINEASA |
| 48 | 25.458260 | 45.446140 | 527527 | VF. OMU |
| 49 | 25.273270 | 45.431910 | 528518 | FUNDATA |
| 50 | 25.585100 | 45.506460 | 530535 | PREDEAL |
| 51 | 28.033930 | 45.473300 | 530801 | GALATI |
| 52 | 24.273180 | 45.653180 | 538416 | BOITA |
| 53 | 23.934000 | 45.657510 | 539357 | PALTINIS |
| 54 | 21.934630 | 45.686730 | 541154 | LUGOJ |

| | | | | |
|-----|-----------|-----------|--------|-----------------|
| 55 | 26.058304 | 45.668545 | 541601 | INT.BUZAULUI |
| 56 | 25.527720 | 45.696130 | 542532 | BRASOV |
| 57 | 21.259360 | 45.771460 | 546115 | TIMISOARA |
| 58 | 24.092940 | 45.789700 | 548409 | SIBIU |
| 59 | 24.936720 | 45.836360 | 551459 | FAGARAS |
| 60 | 26.377080 | 45.824010 | 551621 | LACAUTI |
| 61 | 27.410360 | 45.841950 | 551716 | TECUCI |
| 62 | 22.900460 | 45.865040 | 553254 | DEVA |
| 63 | 23.543090 | 45.964530 | 557334 | SEBES-ALBA |
| 64 | 26.116870 | 45.993240 | 600608 | TG.SECUIESC |
| 65 | 20.603163 | 46.071633 | 604037 | SINNICOLU MARE |
| 66 | 27.171810 | 46.105020 | 606705 | ADJUD |
| 67 | 21.355219 | 46.133851 | 608121 | ARAD |
| 68 | 23.936770 | 46.178820 | 611355 | BLAJ |
| 69 | 24.593180 | 46.228250 | 614436 | DUMBRAVENI |
| 70 | 27.645580 | 46.231360 | 614740 | BIRLAD |
| 71 | 26.642590 | 46.272960 | 617637 | TG. OCNA |
| 72 | 25.774170 | 46.371580 | 622544 | MIERCUREA CIUC |
| 73 | 21.543000 | 46.518940 | 632130 | CHISINEU CRIS |
| 74 | 24.535330 | 46.533680 | 632432 | TG.MURES |
| 75 | 23.311820 | 46.535770 | 634322 | BAISOARA |
| 76 | 26.914070 | 46.532150 | 635658 | BACAU |
| 77 | 27.715830 | 46.646240 | 639744 | VASLUI |
| 78 | 25.514170 | 46.706080 | 642540 | JOSENI |
| 79 | 22.795790 | 46.759560 | 646247 | VLADEASA 1800 |
| 80 | 23.572990 | 46.777990 | 647334 | CLUJ-NAPOCA |
| 81 | 25.951510 | 46.977760 | 656555 | CEAHLAU TOACA |
| 82 | 26.390900 | 46.934020 | 656621 | PIATRA NEAMT |
| 83 | 21.897545 | 47.036020 | 703156 | ORADEA |
| 84 | 24.515450 | 47.149420 | 708430 | BISTRITA |
| 85 | 23.900500 | 47.128260 | 709352 | DEJ |
| 86 | 27.630080 | 47.171060 | 710736 | IASI |
| 87 | 23.048360 | 47.195280 | 711305 | ZALAU |
| 88 | 26.927410 | 47.358670 | 722657 | COTNARI |
| 89 | 24.650730 | 47.602830 | 737439 | IEZER |
| 90 | 26.241960 | 47.633280 | 739615 | SUCEAVA |
| 91 | 23.493240 | 47.661210 | 740330 | BAIA-MARE |
| 92 | 26.647040 | 47.736050 | 741640 | BOTOSANI |
| 93 | 23.942140 | 47.777370 | 747356 | OC.SUGATAG |
| 94 | 22.888782 | 47.721768 | 748253 | SATU MARE |
| 95 | 21.16056 | 46.67944 | 66519 | Bekescsaba |
| 96 | 21.61083 | 47.49028 | 64704 | Debrecen |
| 97 | 20.68750 | 46.54417 | 57311 | Oroshaza |
| 98 | 22.62556 | 47.86222 | 73302 | Patyod |
| 99 | 20.73667 | 46.31722 | 58300 | Pitvaros |
| 100 | 21.32217 | 44.83615 | 2802 | BELACRKVA |
| 101 | 20.46464 | 45.84263 | 13174 | KIKINDA |
| 102 | 22.53634 | 44.23916 | 13295 | NEGOTIN |
| 103 | 21.49843 | 44.75261 | 13285 | VELIKO GRADISTE |
| 104 | 21.30552 | 45.14414 | 13183 | VRSAK |
| 105 | 20.37601 | 45.39872 | 13173 | ZRENJANIN |
| 106 | 22.65000 | 48.20000 | 33634 | Beregove |
| 107 | 25.97250 | 48.26639 | 3658 | Chernivtsi |
| 108 | 23.30000 | 48.18333 | 33638 | Khust |
| 109 | 24.19806 | 48.04750 | 33647 | Rakhiv |
| 110 | 25.21667 | 47.88333 | 33657 | Seliatyn |

Table 5.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 49 | 49 | 93.48 | 29 | 29 | 93.18 | 13 | 13 | 71.80 |
| 20 | 20 | 67.90 | 44 | 44 | 61.51 | 40 | 40 | 56.67 |
| 15 | 15 | 55.37 | 17 | 17 | 52.70 | 4 | 4 | 47.26 |
| 21 | 21 | 43.28 | 47 | 47 | 42.09 | 6 | 6 | 41.61 |
| 51 | 51 | 41.33 | 18 | 18 | 41.03 | 32 | 32 | 40.74 |
| 41 | 41 | 37.08 | 46 | 46 | 37.01 | 7 | 7 | 35.89 |
| 25 | 25 | 35.05 | 2 | 2 | 34.34 | 37 | 37 | 33.04 |
| 12 | 12 | 32.86 | 23 | 23 | 31.28 | 50 | 50 | 30.72 |
| 35 | 35 | 30.61 | 3 | 3 | 29.95 | 39 | 39 | 29.36 |
| 9 | 9 | 28.98 | 14 | 14 | 27.46 | 34 | 34 | 27.44 |
| 42 | 42 | 25.67 | 27 | 27 | 24.60 | 19 | 19 | 24.42 |
| 26 | 26 | 23.08 | 11 | 11 | 22.08 | 5 | 5 | 21.35 |
| 1 | 1 | 21.18 | 31 | 31 | 20.34 | 28 | 28 | 17.89 |
| 22 | 22 | 17.53 | 48 | 48 | 17.26 | 45 | 45 | 17.16 |
| 10 | 10 | 16.62 | 43 | 43 | 15.89 | 36 | 36 | 15.30 |
| 30 | 30 | 15.18 | 8 | 8 | 15.01 | 33 | 33 | 14.95 |
| 24 | 24 | 12.70 | 16 | 16 | 12.22 | 38 | 38 | 11.56 |
| AVERAGE: | | 33.59 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 44 | 44 | 1157.93 | 46 | 46 | 687.22 | 13 | 13 | 616.81 |
| 24 | 24 | 552.03 | 29 | 29 | 345.30 | 23 | 23 | 342.02 |
| 9 | 9 | 335.35 | 12 | 12 | 294.09 | 18 | 18 | 268.40 |
| 10 | 10 | 259.71 | 48 | 48 | 251.65 | 26 | 26 | 234.99 |
| 4 | 4 | 227.88 | 15 | 15 | 194.19 | 3 | 3 | 192.96 |
| 6 | 6 | 173.74 | 37 | 37 | 166.32 | 52 | 52 | 164.69 |
| 20 | 20 | 152.18 | 21 | 21 | 148.04 | 47 | 47 | 139.45 |
| 39 | 39 | 130.77 | 36 | 36 | 129.98 | 30 | 30 | 128.96 |
| 35 | 35 | 128.63 | 28 | 28 | 124.03 | 11 | 11 | 122.65 |
| 50 | 50 | 120.01 | 45 | 45 | 114.92 | 43 | 43 | 110.52 |
| 17 | 17 | 108.85 | 41 | 41 | 98.05 | 42 | 42 | 86.01 |
| 49 | 49 | 82.03 | 53 | 53 | 75.46 | 25 | 25 | 73.72 |
| 14 | 14 | 71.36 | 22 | 22 | 67.41 | 38 | 38 | 67.26 |
| 7 | 7 | 66.39 | 2 | 2 | 60.93 | 16 | 16 | 58.71 |
| 31 | 31 | 56.91 | 1 | 1 | 53.90 | 19 | 19 | 51.61 |
| 32 | 32 | 44.14 | 33 | 33 | 36.54 | 40 | 40 | 36.35 |
| 27 | 27 | 28.48 | 51 | 51 | 27.30 | 8 | 8 | 25.91 |
| 34 | 34 | 17.82 | 5 | 5 | 17.37 | | | |
| AVERAGE: | | 176.00 | | | | | | |

Table 5.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 45 | 45 | 0.43 | 35 | 35 | 0.47 | 42 | 42 | 0.49 |
| 33 | 33 | 0.58 | 1 | 1 | 0.59 | 51 | 51 | 0.59 |
| 17 | 17 | 0.62 | 34 | 34 | 0.63 | 19 | 19 | 0.66 |
| 39 | 39 | 0.67 | 24 | 24 | 0.67 | 44 | 44 | 0.67 |
| 41 | 41 | 0.68 | 21 | 21 | 0.68 | 7 | 7 | 0.69 |
| 10 | 10 | 0.69 | 37 | 37 | 0.70 | 12 | 12 | 0.70 |
| 11 | 11 | 0.71 | 31 | 31 | 0.71 | 27 | 27 | 0.72 |
| 40 | 40 | 0.72 | 38 | 38 | 0.72 | 16 | 16 | 0.73 |
| 22 | 22 | 0.73 | 6 | 6 | 0.73 | 47 | 47 | 0.73 |
| 32 | 32 | 0.74 | 30 | 30 | 0.74 | 29 | 29 | 0.74 |
| 3 | 3 | 0.74 | 9 | 9 | 0.74 | 23 | 23 | 0.74 |
| 20 | 20 | 0.74 | 36 | 36 | 0.75 | 43 | 43 | 0.75 |
| 28 | 28 | 0.75 | 8 | 8 | 0.75 | 4 | 4 | 0.76 |
| 14 | 14 | 0.76 | 15 | 15 | 0.77 | 13 | 13 | 0.77 |
| 5 | 5 | 0.77 | 18 | 18 | 0.77 | 46 | 46 | 0.77 |
| 25 | 25 | 0.78 | 49 | 49 | 0.78 | 26 | 26 | 0.79 |
| 50 | 50 | 0.79 | 48 | 48 | 0.80 | 2 | 2 | 0.81 |
| AVERAGE: | | 0.71 | | | | | | |

The Stations are the same as at Table 1.4c.

Table 5.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 660 | 36 | 123.43 | 11902 | 11 | 121.04 | 600 | 33 | 116.01 |
| 33511 | 24 | 114.23 | 6518 | 40 | 87.18 | 11785 | 50 | 86.23 |
| 6507 | 38 | 84.68 | 6605 | 41 | 84.05 | 11779 | 48 | 82.46 |
| 33631 | 25 | 74.01 | 6707 | 45 | 66.66 | 11766 | 49 | 63.73 |
| 690 | 37 | 60.49 | 6618 | 42 | 59.82 | 11961 | 18 | 56.49 |
| 11938 | 16 | 51.33 | 11876 | 10 | 48.06 | 11910 | 13 | 48.01 |
| 33634 | 23 | 47.28 | 6513 | 39 | 47.04 | 11782 | 52 | 46.82 |
| 11867 | 7 | 46.69 | 11927 | 14 | 45.65 | 44121 | 27 | 44.88 |
| 51705 | 29 | 44.65 | 33514 | 26 | 43.02 | 11787 | 51 | 41.18 |
| 11774 | 47 | 37.34 | 11978 | 21 | 36.07 | 6702 | 44 | 35.27 |
| 23201 | 31 | 34.77 | 11946 | 17 | 34.44 | 11858 | 5 | 33.65 |
| 6628 | 43 | 31.18 | 11931 | 15 | 30.80 | 11819 | 4 | 29.64 |
| 53101 | 30 | 29.55 | 11868 | 8 | 28.75 | 11968 | 19 | 26.83 |
| 11903 | 12 | 26.70 | 11813 | 3 | 24.29 | 23703 | 28 | 24.23 |
| 11977 | 20 | 22.63 | 11993 | 22 | 22.32 | 11806 | 2 | 18.62 |
| 11803 | 1 | 18.56 | 11874 | 9 | 17.73 | 625 | 34 | 17.23 |
| 650 | 35 | 14.50 | 61709 | 32 | 13.57 | 11866 | 6 | 12.92 |
| 6809 | 46 | 12.05 | | | | | | |
| AVERAGE: | | 47.48 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|--------|
| 11803 | 1 | 3364.76 | 11902 | 11 | 1709.43 | 6507 | 38 | 805.20 |
| 11978 | 21 | 796.22 | 11785 | 50 | 596.33 | 11961 | 18 | 418.36 |
| 11946 | 17 | 388.23 | 600 | 33 | 380.88 | 660 | 36 | 326.10 |
| 33634 | 23 | 319.78 | 23201 | 31 | 275.37 | 11874 | 9 | 260.18 |
| 11876 | 10 | 250.47 | 33511 | 24 | 241.95 | 44121 | 27 | 237.25 |
| 11868 | 8 | 233.66 | 11866 | 6 | 202.52 | 11931 | 15 | 190.76 |
| 11779 | 48 | 186.00 | 11938 | 16 | 177.14 | 11993 | 22 | 171.47 |
| 6518 | 40 | 168.08 | 11782 | 52 | 163.70 | 6605 | 41 | 161.06 |
| 6618 | 42 | 158.80 | 51705 | 29 | 157.28 | 11858 | 5 | 147.95 |
| 11968 | 19 | 132.53 | 690 | 37 | 132.02 | 33514 | 26 | 126.02 |
| 11766 | 49 | 119.58 | 61709 | 32 | 117.64 | 11819 | 4 | 109.15 |
| 33631 | 25 | 104.65 | 11910 | 13 | 101.02 | 6702 | 44 | 97.22 |
| 11806 | 2 | 86.81 | 11867 | 7 | 81.26 | 11787 | 51 | 80.99 |
| 23703 | 28 | 78.41 | 6707 | 45 | 69.82 | 6513 | 39 | 68.83 |
| 625 | 34 | 66.95 | 11774 | 47 | 66.42 | 53101 | 30 | 61.28 |
| 650 | 35 | 54.17 | 11927 | 14 | 53.90 | 11813 | 3 | 52.65 |
| 6628 | 43 | 49.79 | 11977 | 20 | 38.43 | 11903 | 12 | 31.01 |
| 6809 | 46 | 12.86 | | | | | | |
| AVERAGE: | | 278.51 | | | | | | |

Table 5.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 61709 | 32 | 0.43 | 33634 | 23 | 0.44 | 11910 | 13 | 0.47 |
| 11866 | 6 | 0.48 | 44121 | 27 | 0.51 | 6513 | 39 | 0.52 |
| 51705 | 29 | 0.55 | 33511 | 24 | 0.55 | 11977 | 20 | 0.57 |
| 53101 | 30 | 0.58 | 11803 | 1 | 0.58 | 23201 | 31 | 0.60 |
| 11961 | 18 | 0.61 | 6507 | 38 | 0.63 | 33514 | 26 | 0.64 |
| 11868 | 8 | 0.64 | 6628 | 43 | 0.64 | 11876 | 10 | 0.65 |

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|-----------------------------|----|---------------------------|-------|----|-------------------------|-------|--------------------|------|
| 11938 | 16 | 0.65 | 11787 | 51 | 0.65 | 11927 | 14 | 0.65 |
| 6605 | 41 | 0.65 | 6809 | 46 | 0.65 | 6702 | 44 | 0.65 |
| 11813 | 3 | 0.65 | 11806 | 2 | 0.66 | 6618 | 42 | 0.66 |
| 690 | 37 | 0.66 | 11785 | 50 | 0.66 | 11874 | 9 | 0.67 |
| 11779 | 48 | 0.67 | 11946 | 17 | 0.68 | 6518 | 40 | 0.68 |
| 11978 | 21 | 0.68 | 11931 | 15 | 0.69 | 23703 | 28 | 0.70 |
| 660 | 36 | 0.70 | 11766 | 49 | 0.70 | 33631 | 25 | 0.71 |
| 11903 | 12 | 0.71 | 11902 | 11 | 0.71 | 11867 | 7 | 0.72 |
| 600 | 33 | 0.73 | 625 | 34 | 0.73 | 11774 | 47 | 0.73 |
| 11993 | 22 | 0.75 | 11782 | 52 | 0.75 | 650 | 35 | 0.75 |
| 6707 | 45 | 0.76 | 11858 | 5 | 0.77 | 11819 | 4 | 0.79 |
| 11968 | 19 | 0.79 | | | | | | |
| AVERAGE: | | 0.65 | | | | | | |

Table 5.5c. Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| index | lambda | fi | h | station |
|-------|-------------|-------------|--------|---------|
| 1 | 18.02916667 | 48.89694449 | 209.0 | 11803 |
| 2 | 17.57805559 | 48.75055559 | 409.0 | 11806 |
| 3 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 4 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 5 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 6 | 18.77527782 | 49.43916669 | 423.0 | 11866 |
| 7 | 18.59388892 | 48.76972226 | 260.0 | 11867 |
| 8 | 19.18305556 | 49.36833335 | 780.0 | 11868 |
| 9 | 19.72527782 | 49.03916667 | 640.0 | 11874 |
| 10 | 19.91055560 | 49.14000001 | 972.0 | 11876 |
| 11 | 19.09388889 | 48.31916668 | 355.0 | 11902 |
| 12 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 13 | 19.64666670 | 48.64444448 | 1015.0 | 11910 |
| 14 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 15 | 20.23583335 | 49.18944445 | 1778.0 | 11931 |
| 16 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 17 | 20.80138893 | 48.71666670 | 575.0 | 11946 |
| 18 | 20.84583338 | 49.25972224 | 485.0 | 11961 |
| 19 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 20 | 21.91388894 | 49.25333335 | 305.0 | 11977 |
| 21 | 21.73472226 | 48.66805559 | 104.0 | 11978 |
| 22 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 23 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 24 | 23.00000000 | 49.20000001 | 594.0 | 33511 |
| 25 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 26 | 22.50000003 | 48.90000005 | 205.0 | 33514 |
| 27 | 19.02805556 | 47.06111111 | 153.0 | 44120 |
| 28 | 17.67472226 | 47.71000004 | 117.0 | 23702 |
| 29 | 20.53611114 | 48.49527780 | 309.0 | 51700 |
| 30 | 20.01666667 | 47.86666671 | 1011.0 | 53100 |
| 31 | 17.26722224 | 47.88972227 | 121.0 | 23212 |
| 32 | 21.65888892 | 48.38083335 | 100.0 | 62305 |
| 33 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 34 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 35 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 36 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 37 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 38 | 19.68805559 | 49.72583337 | 360.0 | 6507 |
| 39 | 19.51888892 | 49.61166670 | 697.0 | 6513 |
| 40 | 19.69583337 | 49.47194447 | 615.0 | 6518 |
| 41 | 20.41833336 | 49.69361115 | 515.0 | 6605 |
| 42 | 20.43166669 | 49.44555558 | 445.0 | 6618 |
| 43 | 20.88638894 | 49.34972224 | 445.0 | 6628 |
| 44 | 21.29583335 | 49.73527782 | 285.0 | 6702 |
| 45 | 21.17250001 | 49.43805558 | 519.0 | 6707 |
| 46 | 22.06333334 | 49.33916668 | 470.0 | 6809 |
| 47 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 48 | 17.70777781 | 48.90277782 | 383.0 | 11779 |
| 49 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 50 | 18.24055557 | 49.54111114 | 436.0 | 11785 |
| 51 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 52 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 5.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 24 | 24 | 137.07 | 13 | 13 | 84.68 | 12 | 12 | 81.33 |
| 4 | 4 | 80.55 | 25 | 25 | 76.93 | 23 | 23 | 74.03 |
| 1 | 1 | 70.13 | 5 | 5 | 69.72 | 15 | 15 | 63.32 |
| 20 | 20 | 61.61 | 3 | 3 | 61.01 | 10 | 10 | 60.75 |
| 17 | 17 | 59.82 | 8 | 8 | 59.77 | 35 | 35 | 51.29 |
| 16 | 16 | 49.39 | 39 | 39 | 47.20 | 14 | 14 | 47.04 |
| 27 | 27 | 43.38 | 9 | 9 | 42.79 | 19 | 19 | 39.85 |
| 32 | 32 | 37.64 | 11 | 11 | 34.37 | 33 | 33 | 33.06 |
| 22 | 22 | 31.38 | 7 | 7 | 31.35 | 18 | 18 | 30.77 |
| 38 | 38 | 30.34 | 36 | 36 | 30.30 | 29 | 29 | 28.72 |
| 37 | 37 | 27.58 | 34 | 34 | 25.75 | 2 | 2 | 24.49 |
| 30 | 30 | 24.37 | 26 | 26 | 24.02 | 31 | 31 | 22.10 |
| 21 | 21 | 18.86 | 6 | 6 | 17.30 | 28 | 28 | 12.72 |
| 40 | 40 | 11.75 | | | | | | |
| AVERAGE: | | 46.46 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 13 | 13 | 840.71 | 11 | 11 | 672.07 | 25 | 25 | 508.03 |
| 32 | 32 | 423.71 | 37 | 37 | 313.19 | 23 | 23 | 283.37 |
| 4 | 4 | 272.24 | 30 | 30 | 244.97 | 34 | 34 | 234.39 |
| 29 | 29 | 233.66 | 1 | 1 | 225.40 | 28 | 28 | 213.28 |
| 5 | 5 | 185.23 | 27 | 27 | 171.22 | 17 | 17 | 161.35 |
| 15 | 15 | 146.70 | 19 | 19 | 127.66 | 12 | 12 | 124.40 |
| 3 | 3 | 120.21 | 24 | 24 | 119.38 | 16 | 16 | 117.14 |
| 8 | 8 | 113.23 | 35 | 35 | 108.19 | 40 | 40 | 98.99 |
| 9 | 9 | 94.92 | 10 | 10 | 92.79 | 39 | 39 | 86.47 |
| 2 | 2 | 82.27 | 22 | 22 | 74.55 | 31 | 31 | 73.09 |
| 14 | 14 | 67.56 | 6 | 6 | 66.33 | 20 | 20 | 56.14 |
| 33 | 33 | 53.09 | 38 | 38 | 51.06 | 18 | 18 | 42.11 |
| 7 | 7 | 36.39 | 36 | 36 | 31.31 | 26 | 26 | 27.76 |
| 21 | 21 | 20.72 | | | | | | |
| AVERAGE: | | 175.38 | | | | | | |

Table 5.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 11 | 11 | 0.46 | 28 | 28 | 0.47 | 14 | 14 | 0.52 |
| 39 | 39 | 0.58 | 33 | 33 | 0.58 | 32 | 32 | 0.58 |
| 40 | 40 | 0.61 | 26 | 26 | 0.63 | 13 | 13 | 0.63 |
| 19 | 19 | 0.64 | 23 | 23 | 0.64 | 31 | 31 | 0.64 |
| 29 | 29 | 0.64 | 18 | 18 | 0.64 | 34 | 34 | 0.64 |
| 30 | 30 | 0.64 | 12 | 12 | 0.65 | 17 | 17 | 0.66 |
| 37 | 37 | 0.66 | 16 | 16 | 0.67 | 25 | 25 | 0.67 |
| 36 | 36 | 0.68 | 15 | 15 | 0.68 | 10 | 10 | 0.68 |
| 38 | 38 | 0.70 | 21 | 21 | 0.70 | 5 | 5 | 0.71 |
| 24 | 24 | 0.71 | 9 | 9 | 0.71 | 2 | 2 | 0.72 |
| 1 | 1 | 0.73 | 22 | 22 | 0.73 | 6 | 6 | 0.73 |

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|---------------|----|------|-------------------|--------------|------|----|------------|------|--|
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| 4 | 4 | 0.73 | 7 | 7 | 0.74 | 27 | 27 | 0.74 | |
| 8 | 8 | 0.75 | 3 | 3 | 0.75 | 20 | 20 | 0.76 | |
| 35 | 35 | 0.79 | | | | | | | |
| AVERAGE: | | 0.66 | | | | | | | |

Table 5.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 18.92027783 | 49.99638894 | 270.0 |
| 11 | 19.09527778 | 50.08500000 | 255.0 |
| 12 | 19.95861116 | 50.06416667 | 206.0 |
| 13 | 19.68805559 | 49.72583337 | 360.0 |
| 14 | 19.51888892 | 49.61166670 | 697.0 |
| 15 | 19.69583337 | 49.47194447 | 615.0 |
| 16 | 20.41833336 | 49.69361115 | 515.0 |
| 17 | 20.43166669 | 49.44555558 | 445.0 |
| 18 | 20.88638894 | 49.34972224 | 445.0 |
| 19 | 21.29583335 | 49.73527782 | 285.0 |
| 20 | 21.17250001 | 49.43805558 | 519.0 |
| 21 | 22.06333334 | 49.33916668 | 470.0 |
| 22 | 17.57000003 | 49.32000002 | 222.0 |
| 23 | 17.71000004 | 48.90000005 | 383.0 |
| 24 | 17.54000003 | 49.78000004 | 749.0 |
| 25 | 18.24000001 | 49.54000003 | 436.0 |
| 26 | 18.45000002 | 49.55000003 | 1322.0 |
| 27 | 18.12000001 | 49.70000004 | 250.0 |
| 28 | 18.76583337 | 49.43611113 | 468.0 |
| 29 | 19.18305556 | 49.36833335 | 780.0 |
| 30 | 19.72527782 | 49.03916667 | 640.0 |
| 31 | 19.91055560 | 49.14000001 | 972.0 |
| 32 | 20.84277782 | 49.26027779 | 485.0 |
| 33 | 21.91388894 | 49.25333335 | 305.0 |
| 34 | 22.00611111 | 48.93888894 | 176.0 |
| 35 | 23.63333337 | 50.25000001 | 252.0 |
| 36 | 23.38333335 | 49.95000005 | 245.0 |
| 37 | 23.16666668 | 49.80000004 | 232.0 |
| 38 | 23.56694447 | 49.36222224 | 275.0 |
| 39 | 23.03333334 | 49.15000001 | 594.0 |
| 40 | 22.46666669 | 48.90000005 | 205.0 |

Table 5.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| 3 | 3 | 137.07 | 16 | 16 | 112.94 | 2 | 2 | 87.06 |
| 4 | 4 | 76.93 | 17 | 17 | 75.91 | 15 | 15 | 70.13 |
| 13 | 13 | 50.97 | 14 | 14 | 49.01 | 6 | 6 | 43.12 |
| 1 | 1 | 34.84 | 7 | 7 | 33.10 | 11 | 11 | 24.74 |
| 5 | 5 | 24.02 | 9 | 9 | 23.60 | 8 | 8 | 16.00 |
| 10 | 10 | 15.21 | 12 | 12 | 12.62 | | | |
| AVERAGE: | | 52.19 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 7 | 7 | 4577.17 | 4 | 4 | 508.01 | 14 | 14 | 285.37 |
| 15 | 15 | 229.84 | 16 | 16 | 227.52 | 2 | 2 | 205.80 |
| 12 | 12 | 176.67 | 6 | 6 | 173.00 | 13 | 13 | 131.98 |
| 3 | 3 | 119.38 | 17 | 17 | 115.16 | 10 | 10 | 112.65 |
| 11 | 11 | 87.46 | 8 | 8 | 80.47 | 1 | 1 | 66.44 |
| 9 | 9 | 65.93 | 5 | 5 | 27.76 | | | |
| AVERAGE: | | 422.98 | | | | | | |

Table 5.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 12 | 12 | 0.48 | 7 | 7 | 0.58 | 14 | 14 | 0.62 |
| 5 | 5 | 0.63 | 17 | 17 | 0.63 | 9 | 9 | 0.63 |
| 8 | 8 | 0.66 | 4 | 4 | 0.67 | 2 | 2 | 0.67 |
| 11 | 11 | 0.69 | 13 | 13 | 0.69 | 3 | 3 | 0.71 |
| 15 | 15 | 0.73 | 1 | 1 | 0.73 | 16 | 16 | 0.73 |
| 6 | 6 | 0.75 | 10 | 10 | 0.79 | | | |
| AVERAGE: | | 0.67 | | | | | | |

The Stations are the same as at Table 4.7c.

Annex 6. Surface vapour pressure

Table 6.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| sanni | 58 | 61.13 | kosic | 67 | 52.11 | stos | 66 | 49.22 |
| kikin | 54 | 46.18 | brati | 63 | 45.19 | palic | 52 | 43.02 |
| arad | 55 | 41.63 | 39113 | 20 | 38.06 | 53521 | 31 | 36.65 |
| 53101 | 30 | 35.39 | milho | 68 | 34.70 | khust | 61 | 34.65 |
| bereg | 60 | 34.61 | slavo | 49 | 31.70 | sacui | 57 | 30.40 |
| 26505 | 12 | 30.33 | donji | 47 | 29.09 | 56300 | 35 | 27.92 |
| 15310 | 4 | 26.98 | 54306 | 32 | 26.73 | 55706 | 34 | 26.23 |
| valpo | 50 | 25.79 | 36500 | 18 | 24.88 | 16414 | 6 | 24.42 |
| 13704 | 2 | 24.06 | 16601 | 1 | 23.35 | 73302 | 43 | 23.33 |
| 52819 | 29 | 23.29 | daruv | 45 | 22.50 | 38605 | 19 | 22.33 |
| 16204 | 5 | 21.94 | orade | 56 | 21.23 | 58113 | 37 | 21.14 |
| backi | 51 | 21.07 | hurba | 64 | 20.94 | uzhgo | 62 | 20.78 |
| 64704 | 41 | 20.00 | 27815 | 13 | 19.89 | 34211 | 15 | 19.63 |
| 36407 | 17 | 19.60 | satu | 59 | 18.75 | 44121 | 22 | 18.68 |
| 57311 | 36 | 18.62 | 44527 | 24 | 18.47 | 55502 | 33 | 18.43 |
| 63411 | 40 | 18.06 | 48101 | 27 | 17.97 | 44214 | 23 | 17.93 |
| 46303 | 25 | 17.72 | 58300 | 38 | 17.20 | 61709 | 39 | 16.24 |
| 23703 | 10 | 16.15 | 28700 | 14 | 16.10 | 17306 | 7 | 15.92 |
| lucen | 65 | 15.68 | djurd | 46 | 15.66 | sombo | 53 | 14.93 |
| 14706 | 3 | 13.74 | 25212 | 11 | 12.78 | 51705 | 28 | 11.96 |
| 47106 | 26 | 11.66 | 66519 | 42 | 11.48 | bjelo | 44 | 11.32 |
| 17809 | 8 | 11.13 | 36100 | 16 | 11.07 | 23201 | 9 | 9.92 |
| 43613 | 21 | 9.89 | osije | 48 | 8.37 | | | |
| AVERAGE: | | 23.79 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| backi | 51 | 737.19 | bjelo | 44 | 590.33 | osije | 48 | 421.85 |
| sombo | 53 | 361.74 | djurd | 46 | 303.50 | kikin | 54 | 234.09 |
| hurba | 64 | 232.98 | 27815 | 13 | 211.41 | 43613 | 21 | 194.50 |
| 16601 | 1 | 189.57 | daruv | 45 | 183.46 | 46303 | 25 | 173.85 |
| slavo | 49 | 169.82 | 56300 | 35 | 168.77 | 17306 | 7 | 160.19 |
| valpo | 50 | 157.76 | 25212 | 11 | 147.75 | palic | 52 | 146.62 |
| 53521 | 31 | 133.38 | 51705 | 28 | 120.75 | 54306 | 32 | 119.96 |
| 44121 | 22 | 114.03 | 58300 | 38 | 112.43 | 17809 | 8 | 110.69 |
| 52819 | 29 | 110.23 | 26505 | 12 | 105.54 | 38605 | 19 | 103.44 |
| donji | 47 | 100.14 | 39113 | 20 | 95.93 | 36500 | 18 | 86.00 |
| 16414 | 6 | 85.02 | 14706 | 3 | 83.86 | khust | 61 | 83.13 |
| 73302 | 43 | 80.02 | 16204 | 5 | 78.99 | brati | 63 | 75.10 |
| lucen | 65 | 74.93 | 34211 | 15 | 70.65 | 57311 | 36 | 69.63 |
| kosic | 67 | 67.74 | 61709 | 39 | 66.59 | 55502 | 33 | 65.90 |
| 13704 | 2 | 65.12 | stos | 66 | 61.93 | sanni | 58 | 61.35 |
| 15310 | 4 | 59.38 | 55706 | 34 | 57.94 | 44214 | 23 | 55.79 |
| 23201 | 9 | 48.62 | arad | 55 | 47.80 | 28700 | 14 | 47.07 |
| 63411 | 40 | 44.76 | 36100 | 16 | 41.26 | milho | 68 | 38.08 |
| 36407 | 17 | 36.94 | 53101 | 30 | 35.60 | uzhgo | 62 | 34.56 |
| 66519 | 42 | 33.50 | 64704 | 41 | 32.37 | 58113 | 37 | 30.61 |
| sacui | 57 | 28.64 | satu | 59 | 27.79 | 48101 | 27 | 23.04 |
| orade | 56 | 20.23 | 47106 | 26 | 15.78 | 23703 | 10 | 15.63 |
| 44527 | 24 | 13.13 | bereg | 60 | 11.83 | | | |
| AVERAGE: | | 117.47 | | | | | | |

Table 6.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 47106 | 26 | 0.25 | 36407 | 17 | 0.32 | bereg | 60 | 0.33 |
| 17306 | 7 | 0.34 | 36100 | 16 | 0.35 | valpo | 50 | 0.39 |
| 61709 | 39 | 0.40 | 28700 | 14 | 0.42 | 16601 | 1 | 0.44 |
| 39113 | 20 | 0.46 | 38605 | 19 | 0.46 | 64704 | 41 | 0.47 |
| 53521 | 31 | 0.47 | 73302 | 43 | 0.48 | 44214 | 23 | 0.49 |
| 52819 | 29 | 0.51 | 25212 | 11 | 0.53 | 51705 | 28 | 0.53 |
| 13704 | 2 | 0.54 | 23201 | 9 | 0.55 | 23703 | 10 | 0.55 |
| 34211 | 15 | 0.55 | slavo | 49 | 0.56 | lucen | 65 | 0.58 |
| 43613 | 21 | 0.58 | 57311 | 36 | 0.58 | osije | 48 | 0.58 |
| 36500 | 18 | 0.59 | stos | 66 | 0.59 | 27815 | 13 | 0.60 |
| milho | 68 | 0.60 | 53101 | 30 | 0.61 | bjelo | 44 | 0.61 |
| 44527 | 24 | 0.61 | 63411 | 40 | 0.61 | 58300 | 38 | 0.62 |
| 66519 | 42 | 0.62 | 16204 | 5 | 0.62 | sombo | 53 | 0.63 |
| khust | 61 | 0.63 | 55502 | 33 | 0.64 | 48101 | 27 | 0.64 |
| 15310 | 4 | 0.64 | 26505 | 12 | 0.65 | 16414 | 6 | 0.65 |
| donji | 47 | 0.66 | 14706 | 3 | 0.66 | brati | 63 | 0.66 |
| 54306 | 32 | 0.67 | 44121 | 22 | 0.68 | backi | 51 | 0.68 |
| djurd | 46 | 0.68 | daruv | 45 | 0.68 | 17809 | 8 | 0.69 |
| kikin | 54 | 0.69 | kosic | 67 | 0.70 | 58113 | 37 | 0.71 |
| palic | 52 | 0.72 | 46303 | 25 | 0.73 | hurba | 64 | 0.75 |
| uzhgo | 62 | 0.77 | 56300 | 35 | 0.78 | 55706 | 34 | 0.80 |
| satu | 59 | 0.80 | orade | 56 | 0.85 | sanni | 58 | 0.85 |
| arad | 55 | 0.86 | sacui | 57 | 0.87 | | | |
| AVERAGE: | | 0.60 | | | | | | |

The Stations are the same as at Table 1.1c.

Table 6.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| NS | 15 | 104.96 | LO | 19 | 58.43 | ZR | 16 | 56.44 |
| ZG | 29 | 50.22 | SN | 5 | 49.63 | CA | 12 | 48.10 |
| TI | 6 | 45.81 | ZA | 35 | 45.09 | VG | 26 | 43.92 |
| PA | 13 | 41.22 | KI | 17 | 39.42 | CU | 34 | 35.69 |
| ZL | 30 | 33.92 | PO | 31 | 33.38 | SZ | 4 | 32.65 |
| SE | 28 | 31.07 | KS | 33 | 30.83 | SC | 9 | 30.57 |
| NE | 27 | 28.90 | VS | 18 | 28.83 | VL | 2 | 28.30 |
| BL | 11 | 27.04 | OS | 1 | 24.49 | KV | 32 | 23.04 |
| BG | 23 | 21.95 | SM | 20 | 18.53 | SU | 22 | 18.05 |
| OR | 8 | 16.58 | BJ | 3 | 15.85 | SP | 25 | 15.17 |
| BN | 7 | 14.24 | KG | 24 | 13.66 | VA | 21 | 13.53 |
| TS | 10 | 12.31 | SO | 14 | 10.83 | | | |
| AVERAGE: | | 32.65 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| SE | 28 | 614.68 | VL | 2 | 391.85 | ZG | 29 | 287.56 |
| NS | 15 | 270.29 | ZR | 16 | 222.71 | OS | 1 | 222.16 |
| SU | 22 | 213.32 | TI | 6 | 205.24 | SO | 14 | 193.56 |
| CU | 34 | 181.50 | LO | 19 | 161.81 | SM | 20 | 151.58 |
| KI | 17 | 147.90 | VG | 26 | 127.86 | ZA | 35 | 123.61 |
| NE | 27 | 105.71 | CA | 12 | 80.41 | PO | 31 | 79.61 |
| VS | 18 | 74.77 | SZ | 4 | 73.01 | PA | 13 | 70.11 |
| KS | 33 | 58.77 | BG | 23 | 50.79 | BL | 11 | 43.33 |
| KV | 32 | 42.15 | BJ | 3 | 42.12 | ZL | 30 | 35.92 |
| BN | 7 | 32.78 | SP | 25 | 24.47 | VA | 21 | 24.11 |
| TS | 10 | 21.51 | SN | 5 | 19.25 | KG | 24 | 18.45 |
| OR | 8 | 18.44 | SC | 9 | 12.32 | | | |
| AVERAGE: | | 126.96 | | | | | | |

Table 6.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| VL | 2 | 0.36 | KS | 33 | 0.47 | ZG | 29 | 0.47 |
| OS | 1 | 0.49 | SE | 28 | 0.54 | ZL | 30 | 0.60 |
| VA | 21 | 0.60 | BJ | 3 | 0.60 | SO | 14 | 0.60 |
| VS | 18 | 0.62 | KG | 24 | 0.63 | SM | 20 | 0.64 |
| NE | 27 | 0.66 | LO | 19 | 0.66 | SZ | 4 | 0.66 |
| ZA | 35 | 0.67 | BN | 7 | 0.67 | PA | 13 | 0.70 |
| CU | 34 | 0.70 | PO | 31 | 0.71 | SP | 25 | 0.75 |
| KV | 32 | 0.75 | SU | 22 | 0.75 | VG | 26 | 0.75 |
| OR | 8 | 0.77 | KI | 17 | 0.77 | ZR | 16 | 0.79 |
| SC | 9 | 0.80 | BG | 23 | 0.81 | NS | 15 | 0.83 |
| TS | 10 | 0.83 | CA | 12 | 0.84 | SN | 5 | 0.86 |
| BL | 11 | 0.87 | TI | 6 | 0.89 | | | |
| AVERAGE: | | 0.69 | | | | | | |

The Stations are the same as at Table 4.2c.

Table 6.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 634322 | 95 | 117.06 | 538416 | 65 | 114.54 | 455200 | 34 | 114.19 |
| 548409 | 71 | 106.95 | 523108 | 54 | 96.32 | 751555 | 123 | 92.23 |
| 546115 | 70 | 90.59 | 708430 | 109 | 88.02 | 655522 | 104 | 83.16 |
| 413838 | 12 | 80.10 | 714623 | 113 | 75.24 | 530801 | 64 | 73.24 |
| 349835 | 3 | 73.14 | 635658 | 97 | 70.87 | 446853 | 30 | 69.29 |
| 639744 | 98 | 67.52 | 352557 | 4 | 66.65 | 642540 | 99 | 66.43 |
| 622544 | 91 | 65.78 | 506422 | 41 | 64.55 | 500432 | 37 | 62.48 |
| 415816 | 14 | 61.33 | 444417 | 27 | 61.15 | 417530 | 15 | 60.71 |
| 539357 | 66 | 60.52 | 530535 | 63 | 58.32 | 454936 | 33 | 57.50 |
| 13173 | 135 | 56.86 | 758355 | 124 | 55.42 | 452452 | 31 | 55.36 |
| 605537 | 80 | 52.17 | 443639 | 25 | 51.78 | 632432 | 94 | 51.72 |
| 632229 | 93 | 51.33 | 748253 | 122 | 50.83 | 655650 | 105 | 50.30 |
| 551459 | 72 | 49.38 | 617220 | 87 | 49.21 | 346452 | 1 | 48.29 |
| 608121 | 82 | 48.21 | 407500 | 9 | 47.98 | 709352 | 110 | 47.53 |
| 430608 | 20 | 47.10 | 610244 | 83 | 46.82 | 445718 | 29 | 46.26 |
| 502317 | 40 | 45.81 | 618518 | 89 | 45.69 | 13285 | 133 | 45.61 |
| 622303 | 90 | 45.56 | 553254 | 75 | 45.21 | 441757 | 24 | 45.20 |
| 511849 | 47 | 44.84 | 57311 | 127 | 44.51 | 541154 | 67 | 43.99 |
| 551716 | 74 | 43.88 | 406421 | 8 | 43.00 | 711305 | 112 | 42.82 |
| 557334 | 76 | 42.40 | 456526 | 35 | 41.67 | 656555 | 106 | 40.57 |
| 719507 | 114 | 40.44 | 359521 | 6 | 40.23 | 511912 | 48 | 40.08 |
| 528518 | 62 | 39.62 | 453344 | 32 | 39.29 | 542532 | 69 | 39.11 |
| 602213 | 78 | 38.58 | 517507 | 50 | 38.35 | 614740 | 86 | 38.01 |
| 444820 | 28 | 36.79 | 33657 | 140 | 35.66 | 509441 | 43 | 35.62 |
| 525323 | 59 | 35.41 | 604037 | 79 | 35.03 | 722205 | 115 | 32.41 |
| 519622 | 53 | 32.27 | 13174 | 131 | 31.92 | 33658 | 137 | 31.85 |
| 511349 | 46 | 31.61 | 66519 | 125 | 31.52 | 436447 | 21 | 31.50 |
| 656621 | 107 | 31.22 | 647334 | 101 | 30.66 | 646247 | 100 | 29.44 |
| 33638 | 138 | 29.34 | 509649 | 44 | 29.04 | 651305 | 103 | 28.84 |
| 347357 | 2 | 28.07 | 525215 | 58 | 27.97 | 401321 | 7 | 27.93 |
| 722657 | 116 | 27.86 | 414352 | 13 | 27.58 | 438238 | 22 | 27.45 |
| 551621 | 73 | 27.26 | 502141 | 39 | 27.14 | 422751 | 16 | 27.07 |
| 439534 | 23 | 26.61 | 2802 | 130 | 26.27 | 518231 | 52 | 26.20 |
| 457600 | 36 | 25.09 | 523530 | 56 | 24.81 | 740330 | 119 | 24.38 |
| 517545 | 51 | 24.35 | 73302 | 128 | 24.08 | 606705 | 81 | 24.01 |
| 501252 | 38 | 23.97 | 632130 | 92 | 22.99 | 507158 | 42 | 22.25 |
| 710736 | 111 | 22.19 | 13295 | 132 | 22.19 | 58300 | 129 | 22.06 |
| 611355 | 84 | 21.53 | 614436 | 85 | 21.12 | 359257 | 5 | 21.09 |
| 635347 | 96 | 20.99 | 425606 | 17 | 20.92 | 523328 | 55 | 20.87 |
| 412721 | 11 | 20.68 | 525358 | 60 | 20.13 | 428307 | 18 | 20.11 |
| 13183 | 134 | 20.10 | 64704 | 126 | 20.05 | 739615 | 118 | 19.85 |
| 747356 | 121 | 19.71 | 515231 | 49 | 19.69 | 408800 | 10 | 18.97 |
| 527527 | 61 | 18.49 | 33634 | 136 | 18.39 | 617637 | 88 | 17.31 |
| 741640 | 120 | 16.88 | 444127 | 26 | 16.74 | 600608 | 77 | 15.47 |
| 428632 | 19 | 14.81 | 33647 | 139 | 14.73 | 737439 | 117 | 13.89 |
| 703156 | 108 | 13.59 | 523703 | 57 | 12.80 | 650727 | 102 | 12.67 |
| 541601 | 68 | 12.05 | 509940 | 45 | 9.54 | | | |
| AVERAGE: | | 40.87 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 430608 | 20 | 611.17 | 642540 | 99 | 444.34 | 2802 | 130 | 425.28 |
| 634322 | 95 | 407.00 | 708430 | 109 | 387.85 | 622544 | 91 | 367.45 |
| 456526 | 35 | 336.25 | 635658 | 97 | 326.34 | 511349 | 46 | 324.59 |
| 656621 | 107 | 320.79 | 548409 | 71 | 269.34 | 538416 | 65 | 264.46 |
| 443639 | 25 | 222.12 | 655522 | 104 | 220.84 | 13285 | 133 | 218.08 |
| 58300 | 129 | 174.68 | 617220 | 87 | 171.68 | 414352 | 13 | 171.23 |
| 446853 | 30 | 164.80 | 530801 | 64 | 163.53 | 413838 | 12 | 160.80 |
| 452452 | 31 | 151.95 | 457600 | 36 | 150.36 | 13174 | 131 | 148.23 |
| 417530 | 15 | 142.41 | 605537 | 80 | 142.05 | 632432 | 94 | 141.31 |
| 352557 | 4 | 139.82 | 66519 | 125 | 137.13 | 714623 | 113 | 136.75 |
| 758355 | 124 | 135.67 | 709352 | 110 | 132.08 | 349835 | 3 | 126.37 |
| 539357 | 66 | 120.15 | 455200 | 34 | 119.19 | 13173 | 135 | 118.56 |
| 610244 | 83 | 111.52 | 453344 | 32 | 109.97 | 57311 | 127 | 105.57 |
| 647334 | 101 | 104.87 | 436447 | 21 | 103.41 | 506422 | 41 | 103.04 |
| 523108 | 54 | 101.90 | 502317 | 40 | 99.88 | 509649 | 44 | 97.12 |
| 511849 | 47 | 94.73 | 519622 | 53 | 92.67 | 546115 | 70 | 91.26 |
| 553254 | 75 | 88.54 | 557334 | 76 | 85.33 | 73302 | 128 | 84.98 |
| 602213 | 78 | 83.45 | 441757 | 24 | 80.84 | 425606 | 17 | 78.74 |
| 618518 | 89 | 78.24 | 415816 | 14 | 75.74 | 656555 | 106 | 75.38 |
| 33657 | 140 | 75.37 | 542532 | 69 | 75.26 | 551716 | 74 | 75.17 |
| 606705 | 81 | 74.54 | 517507 | 50 | 73.67 | 617637 | 88 | 72.98 |
| 622303 | 90 | 72.43 | 722657 | 116 | 72.16 | 632229 | 93 | 71.70 |
| 359521 | 6 | 71.64 | 500432 | 37 | 70.50 | 655650 | 105 | 69.82 |
| 646247 | 100 | 67.41 | 530535 | 63 | 67.39 | 454936 | 33 | 66.82 |
| 651305 | 103 | 66.65 | 33638 | 138 | 65.02 | 422751 | 16 | 64.20 |
| 639744 | 98 | 62.97 | 445718 | 29 | 62.44 | 551459 | 72 | 60.99 |
| 748253 | 122 | 60.79 | 608121 | 82 | 59.73 | 406421 | 8 | 56.43 |
| 346452 | 1 | 55.81 | 511912 | 48 | 55.20 | 347357 | 2 | 54.61 |
| 741640 | 120 | 53.78 | 614740 | 86 | 50.78 | 541154 | 67 | 48.87 |
| 444820 | 28 | 47.56 | 528518 | 62 | 45.92 | 359257 | 5 | 44.92 |
| 407500 | 9 | 44.22 | 711305 | 112 | 42.92 | 751555 | 123 | 42.74 |
| 444417 | 27 | 42.72 | 614436 | 85 | 42.14 | 551621 | 73 | 42.09 |
| 428307 | 18 | 41.98 | 719507 | 114 | 40.60 | 722205 | 115 | 40.30 |
| 509441 | 43 | 38.17 | 33658 | 137 | 38.16 | 518231 | 52 | 37.01 |
| 604037 | 79 | 36.99 | 13183 | 134 | 35.70 | 439534 | 23 | 35.08 |
| 64704 | 126 | 34.52 | 525215 | 58 | 34.17 | 740330 | 119 | 34.08 |
| 517545 | 51 | 34.00 | 525323 | 59 | 32.43 | 515231 | 49 | 32.31 |
| 523328 | 55 | 31.53 | 401321 | 7 | 28.66 | 747356 | 121 | 28.49 |
| 611355 | 84 | 28.45 | 33647 | 139 | 28.00 | 502141 | 39 | 27.90 |
| 632130 | 92 | 27.81 | 650727 | 102 | 27.55 | 635347 | 96 | 27.36 |
| 523530 | 56 | 26.15 | 408800 | 10 | 25.07 | 501252 | 38 | 24.99 |
| 438238 | 22 | 24.45 | 525358 | 60 | 24.38 | 739615 | 118 | 23.13 |
| 412721 | 11 | 22.98 | 13295 | 132 | 22.53 | 428632 | 19 | 20.60 |
| 444127 | 26 | 20.50 | 33634 | 136 | 20.32 | 710736 | 111 | 20.20 |
| 507158 | 42 | 19.41 | 527527 | 61 | 18.94 | 523703 | 57 | 17.99 |
| 600608 | 77 | 17.46 | 737439 | 117 | 17.32 | 541601 | 68 | 16.32 |
| 509940 | 45 | 14.74 | 703156 | 108 | 14.63 | | | |
| AVERAGE: | | 97.90 | | | | | | |

Table 6.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 33634 | 136 | 0.29 | 527527 | 61 | 0.33 | 64704 | 126 | 0.40 |
| 73302 | 128 | 0.41 | 13295 | 132 | 0.51 | 57311 | 127 | 0.54 |
| 58300 | 129 | 0.57 | 33657 | 140 | 0.57 | 33658 | 137 | 0.58 |
| 515231 | 49 | 0.59 | 656555 | 106 | 0.61 | 13183 | 134 | 0.61 |
| 13285 | 133 | 0.65 | 66519 | 125 | 0.67 | 33647 | 139 | 0.67 |
| 2802 | 130 | 0.68 | 33638 | 138 | 0.69 | 737439 | 117 | 0.72 |
| 646247 | 100 | 0.75 | 525358 | 60 | 0.76 | 13173 | 135 | 0.76 |
| 622303 | 90 | 0.76 | 519622 | 53 | 0.76 | 551621 | 73 | 0.77 |
| 13174 | 131 | 0.78 | 511349 | 46 | 0.78 | 642540 | 99 | 0.78 |
| 610244 | 83 | 0.79 | 455200 | 34 | 0.80 | 502141 | 39 | 0.80 |
| 553254 | 75 | 0.81 | 614436 | 85 | 0.82 | 541601 | 68 | 0.82 |
| 438238 | 22 | 0.82 | 507158 | 42 | 0.83 | 501252 | 38 | 0.83 |
| 542532 | 69 | 0.83 | 444127 | 26 | 0.83 | 622544 | 91 | 0.83 |
| 509940 | 45 | 0.84 | 517545 | 51 | 0.84 | 709352 | 110 | 0.84 |
| 347357 | 2 | 0.84 | 523530 | 56 | 0.85 | 502317 | 40 | 0.85 |
| 453344 | 32 | 0.85 | 523328 | 55 | 0.85 | 523703 | 57 | 0.85 |
| 454936 | 33 | 0.85 | 722657 | 116 | 0.85 | 740330 | 119 | 0.85 |
| 525323 | 59 | 0.85 | 436447 | 21 | 0.85 | 509441 | 43 | 0.85 |
| 359257 | 5 | 0.85 | 430608 | 20 | 0.85 | 614740 | 86 | 0.85 |
| 446853 | 30 | 0.86 | 719507 | 114 | 0.86 | 511849 | 47 | 0.86 |
| 602213 | 78 | 0.86 | 557334 | 76 | 0.86 | 349835 | 3 | 0.86 |
| 346452 | 1 | 0.86 | 444820 | 28 | 0.86 | 605537 | 80 | 0.86 |
| 632432 | 94 | 0.86 | 748253 | 122 | 0.86 | 538416 | 65 | 0.86 |
| 647334 | 101 | 0.86 | 539357 | 66 | 0.86 | 444417 | 27 | 0.87 |
| 528518 | 62 | 0.87 | 608121 | 82 | 0.87 | 518231 | 52 | 0.87 |
| 401321 | 7 | 0.87 | 414352 | 13 | 0.87 | 655522 | 104 | 0.87 |
| 604037 | 79 | 0.87 | 747356 | 121 | 0.87 | 703156 | 108 | 0.87 |
| 551716 | 74 | 0.87 | 618518 | 89 | 0.87 | 635347 | 96 | 0.87 |
| 551459 | 72 | 0.87 | 600608 | 77 | 0.87 | 359521 | 6 | 0.87 |
| 617637 | 88 | 0.87 | 352557 | 4 | 0.88 | 412721 | 11 | 0.88 |
| 530535 | 63 | 0.88 | 606705 | 81 | 0.88 | 741640 | 120 | 0.88 |
| 406421 | 8 | 0.88 | 408800 | 10 | 0.88 | 425606 | 17 | 0.88 |
| 651305 | 103 | 0.88 | 611355 | 84 | 0.88 | 517507 | 50 | 0.88 |
| 639744 | 98 | 0.88 | 739615 | 118 | 0.88 | 634322 | 95 | 0.88 |
| 632130 | 92 | 0.88 | 428307 | 18 | 0.88 | 722205 | 115 | 0.88 |
| 428632 | 19 | 0.88 | 456526 | 35 | 0.88 | 710736 | 111 | 0.88 |
| 506422 | 41 | 0.89 | 541154 | 67 | 0.89 | 548409 | 71 | 0.89 |
| 422751 | 16 | 0.89 | 417530 | 15 | 0.89 | 758355 | 124 | 0.89 |
| 530801 | 64 | 0.89 | 439534 | 23 | 0.89 | 714623 | 113 | 0.89 |
| 708430 | 109 | 0.89 | 509649 | 44 | 0.89 | 650727 | 102 | 0.90 |
| 523108 | 54 | 0.90 | 407500 | 9 | 0.90 | 511912 | 48 | 0.90 |
| 457600 | 36 | 0.90 | 500432 | 37 | 0.90 | 655650 | 105 | 0.90 |
| 525215 | 58 | 0.90 | 443639 | 25 | 0.90 | 415816 | 14 | 0.90 |
| 452452 | 31 | 0.90 | 546115 | 70 | 0.90 | 413838 | 12 | 0.90 |
| 711305 | 112 | 0.91 | 441757 | 24 | 0.91 | 445718 | 29 | 0.91 |
| 656621 | 107 | 0.91 | 751555 | 123 | 0.91 | 617220 | 87 | 0.91 |
| 632229 | 93 | 0.92 | 635658 | 97 | 0.92 | | | |
| AVERAGE: | | 0.82 | | | | | | |

The Stations are the same as at Table 1.3c.

Table 6.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 11 | 11 | 80.32 | 48 | 48 | 77.71 | 26 | 26 | 66.27 |
| 32 | 32 | 61.86 | 7 | 7 | 55.47 | 41 | 41 | 54.80 |
| 9 | 9 | 51.64 | 6 | 6 | 50.24 | 28 | 28 | 50.05 |
| 16 | 16 | 48.96 | 17 | 17 | 48.62 | 36 | 36 | 45.27 |
| 50 | 50 | 45.01 | 5 | 5 | 41.24 | 3 | 3 | 40.27 |
| 27 | 27 | 38.69 | 23 | 23 | 37.83 | 19 | 19 | 36.35 |
| 35 | 35 | 36.23 | 30 | 30 | 35.56 | 4 | 4 | 35.42 |
| 1 | 1 | 35.23 | 8 | 8 | 34.30 | 33 | 33 | 34.26 |
| 42 | 42 | 33.81 | 34 | 34 | 31.66 | 15 | 15 | 31.51 |
| 40 | 40 | 30.06 | 10 | 10 | 29.85 | 13 | 13 | 29.80 |
| 49 | 49 | 29.26 | 45 | 45 | 28.76 | 44 | 44 | 28.46 |
| 14 | 14 | 28.34 | 2 | 2 | 27.46 | 22 | 22 | 25.90 |
| 20 | 20 | 25.78 | 51 | 51 | 25.68 | 39 | 39 | 25.50 |
| 52 | 52 | 25.32 | 25 | 25 | 24.93 | 43 | 43 | 24.43 |
| 31 | 31 | 23.71 | 47 | 47 | 23.33 | 46 | 46 | 23.22 |
| 37 | 37 | 21.76 | 21 | 21 | 20.35 | 38 | 38 | 18.08 |
| 24 | 24 | 17.46 | 53 | 53 | 17.21 | 18 | 18 | 17.19 |
| 29 | 29 | 13.83 | 12 | 12 | 13.18 | | | |
| AVERAGE: | | 35.05 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 32 | 32 | 224.59 | 13 | 13 | 222.03 | 9 | 9 | 199.83 |
| 14 | 14 | 160.06 | 23 | 23 | 157.83 | 30 | 30 | 125.03 |
| 27 | 27 | 123.37 | 25 | 25 | 106.98 | 34 | 34 | 106.52 |
| 15 | 15 | 97.52 | 7 | 7 | 94.99 | 48 | 48 | 94.18 |
| 16 | 16 | 90.46 | 41 | 41 | 89.02 | 11 | 11 | 86.63 |
| 45 | 45 | 85.43 | 33 | 33 | 85.16 | 47 | 47 | 84.95 |
| 6 | 6 | 84.40 | 36 | 36 | 82.46 | 12 | 12 | 80.74 |
| 1 | 1 | 67.80 | 26 | 26 | 64.35 | 43 | 43 | 62.85 |
| 4 | 4 | 61.96 | 50 | 50 | 60.54 | 17 | 17 | 56.48 |
| 5 | 5 | 52.84 | 28 | 28 | 51.65 | 37 | 37 | 51.46 |
| 8 | 8 | 51.39 | 2 | 2 | 47.36 | 3 | 3 | 45.45 |
| 29 | 29 | 45.09 | 19 | 19 | 45.07 | 20 | 20 | 41.08 |
| 21 | 21 | 40.64 | 49 | 49 | 40.36 | 31 | 31 | 40.23 |
| 46 | 46 | 39.16 | 39 | 39 | 38.47 | 40 | 40 | 35.24 |
| 10 | 10 | 33.46 | 38 | 38 | 33.31 | 51 | 51 | 29.57 |
| 52 | 52 | 28.29 | 44 | 44 | 28.21 | 22 | 22 | 27.85 |
| 35 | 35 | 25.05 | 42 | 42 | 24.08 | 24 | 24 | 18.16 |
| 18 | 18 | 17.21 | 53 | 53 | 14.36 | | | |
| AVERAGE: | | 71.72 | | | | | | |

Table 6.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 35 | 35 | 0.34 | 45 | 45 | 0.37 | 37 | 37 | 0.45 |
| 47 | 47 | 0.48 | 10 | 10 | 0.54 | 46 | 46 | 0.58 |
| 44 | 44 | 0.62 | 33 | 33 | 0.63 | 49 | 49 | 0.63 |
| 40 | 40 | 0.65 | 39 | 39 | 0.66 | 3 | 3 | 0.66 |
| 36 | 36 | 0.66 | 42 | 42 | 0.68 | 28 | 28 | 0.68 |
| 34 | 34 | 0.69 | 25 | 25 | 0.69 | 41 | 41 | 0.70 |
| 21 | 21 | 0.71 | 38 | 38 | 0.72 | 53 | 53 | 0.73 |
| 14 | 14 | 0.77 | 31 | 31 | 0.77 | 16 | 16 | 0.77 |
| 23 | 23 | 0.77 | 12 | 12 | 0.78 | 32 | 32 | 0.78 |
| 29 | 29 | 0.79 | 13 | 13 | 0.79 | 8 | 8 | 0.79 |
| 20 | 20 | 0.80 | 43 | 43 | 0.80 | 15 | 15 | 0.80 |
| 18 | 18 | 0.81 | 1 | 1 | 0.82 | 5 | 5 | 0.82 |
| 26 | 26 | 0.83 | 52 | 52 | 0.83 | 6 | 6 | 0.83 |
| 50 | 50 | 0.83 | 17 | 17 | 0.83 | 9 | 9 | 0.84 |
| 30 | 30 | 0.84 | 4 | 4 | 0.84 | 7 | 7 | 0.84 |
| 24 | 24 | 0.84 | 27 | 27 | 0.85 | 22 | 22 | 0.85 |
| 2 | 2 | 0.85 | 11 | 11 | 0.86 | 19 | 19 | 0.87 |
| 51 | 51 | 0.87 | 48 | 48 | 0.90 | | | |
| AVERAGE: | | 0.74 | | | | | | |

The Stations are the same as at Table 1.4c.

Table 6.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 11774 | 47 | 84.70 | 6507 | 38 | 57.72 | 6518 | 40 | 55.04 |
| 6513 | 39 | 51.65 | 11866 | 6 | 47.22 | 11785 | 50 | 47.12 |
| 6605 | 41 | 46.13 | 6618 | 42 | 45.80 | 600 | 33 | 43.79 |
| 11867 | 7 | 36.93 | 33511 | 24 | 36.70 | 6707 | 45 | 35.93 |
| 660 | 36 | 34.96 | 33634 | 23 | 34.92 | 11931 | 15 | 34.41 |
| 53101 | 31 | 34.40 | 690 | 37 | 33.64 | 11779 | 48 | 32.66 |
| 11782 | 52 | 32.05 | 625 | 34 | 29.01 | 11961 | 18 | 27.86 |
| 11813 | 3 | 26.87 | 11868 | 8 | 26.76 | 61709 | 32 | 25.15 |
| 11766 | 49 | 25.02 | 33514 | 26 | 24.98 | 11876 | 10 | 24.64 |
| 6702 | 44 | 24.35 | 11968 | 19 | 23.90 | 11993 | 22 | 22.95 |
| 11946 | 17 | 21.37 | 11874 | 9 | 20.22 | 11902 | 11 | 19.64 |
| 650 | 35 | 19.61 | 6628 | 43 | 18.73 | 11927 | 14 | 18.60 |
| 11803 | 1 | 18.55 | 11819 | 4 | 18.46 | 23201 | 27 | 18.44 |
| 11910 | 13 | 18.38 | 11787 | 51 | 17.94 | 44121 | 29 | 17.58 |
| 11938 | 16 | 15.56 | 6809 | 46 | 15.20 | 11903 | 12 | 15.08 |
| 11806 | 2 | 13.30 | 33631 | 25 | 12.87 | 11977 | 20 | 12.45 |
| 11978 | 21 | 11.97 | 23703 | 28 | 11.94 | 11858 | 5 | 10.83 |
| 51705 | 30 | 9.88 | | | | | | |
| AVERAGE: | | 28.15 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 6518 | 40 | 229.42 | 6618 | 42 | 226.89 | 11785 | 50 | 157.14 |
| 6605 | 41 | 146.03 | 11774 | 47 | 135.76 | 11779 | 48 | 100.11 |
| 51705 | 30 | 91.40 | 11858 | 5 | 91.15 | 11968 | 19 | 87.44 |
| 11993 | 22 | 86.90 | 6507 | 38 | 83.92 | 11931 | 15 | 80.00 |
| 11866 | 6 | 77.49 | 6707 | 45 | 77.05 | 600 | 33 | 76.70 |
| 11874 | 9 | 76.14 | 11867 | 7 | 75.99 | 11902 | 11 | 74.86 |
| 11910 | 13 | 71.46 | 11819 | 4 | 69.69 | 61709 | 32 | 68.74 |
| 11946 | 17 | 65.15 | 11868 | 8 | 64.16 | 11782 | 52 | 63.68 |
| 690 | 37 | 63.23 | 44121 | 29 | 55.44 | 33511 | 24 | 55.44 |
| 11978 | 21 | 55.37 | 11803 | 1 | 55.09 | 11903 | 12 | 52.73 |
| 11927 | 14 | 51.90 | 33514 | 26 | 49.83 | 6702 | 44 | 47.94 |
| 53101 | 31 | 46.34 | 11766 | 49 | 45.68 | 625 | 34 | 43.61 |
| 33631 | 25 | 43.16 | 11813 | 3 | 41.71 | 23201 | 27 | 39.59 |
| 6628 | 43 | 37.82 | 6513 | 39 | 35.85 | 660 | 36 | 35.03 |
| 11806 | 2 | 33.90 | 11977 | 20 | 33.18 | 11961 | 18 | 32.23 |
| 11787 | 51 | 30.73 | 11876 | 10 | 29.23 | 23703 | 28 | 26.92 |
| 650 | 35 | 26.85 | 11938 | 16 | 18.49 | 33634 | 23 | 17.40 |
| 6809 | 46 | 13.53 | | | | | | |
| AVERAGE: | | 67.22 | | | | | | |

Table 6.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 33634 | 23 | 0.34 | 61709 | 32 | 0.38 | 23201 | 27 | 0.44 |
| 11961 | 18 | 0.49 | 11910 | 13 | 0.52 | 11803 | 1 | 0.53 |
| 11785 | 50 | 0.53 | 11902 | 11 | 0.54 | 51705 | 30 | 0.55 |
| 23703 | 28 | 0.55 | 44121 | 29 | 0.55 | 11876 | 10 | 0.55 |
| 11927 | 14 | 0.58 | 53101 | 31 | 0.58 | 11946 | 17 | 0.61 |
| 11978 | 21 | 0.61 | 11806 | 2 | 0.65 | 600 | 33 | 0.65 |
| 690 | 37 | 0.65 | 11903 | 12 | 0.66 | 11938 | 16 | 0.67 |
| 11779 | 48 | 0.67 | 660 | 36 | 0.68 | 11866 | 6 | 0.69 |
| 11858 | 5 | 0.69 | 11977 | 20 | 0.69 | 11819 | 4 | 0.70 |
| 11813 | 3 | 0.70 | 33514 | 26 | 0.70 | 11787 | 51 | 0.70 |
| 11968 | 19 | 0.71 | 11931 | 15 | 0.72 | 650 | 35 | 0.75 |
| 11874 | 9 | 0.75 | 11868 | 8 | 0.75 | 11774 | 47 | 0.76 |
| 11782 | 52 | 0.77 | 33511 | 24 | 0.78 | 11766 | 49 | 0.78 |
| 11867 | 7 | 0.79 | 33631 | 25 | 0.80 | 625 | 34 | 0.80 |
| 11993 | 22 | 0.80 | 6628 | 43 | 0.87 | 6809 | 46 | 0.87 |
| 6605 | 41 | 0.87 | 6702 | 44 | 0.88 | 6707 | 45 | 0.88 |
| 6618 | 42 | 0.89 | 6513 | 39 | 0.89 | 6507 | 38 | 0.90 |
| 6518 | 40 | 0.91 | | | | | | |
| AVERAGE: | | 0.69 | | | | | | |

The Stations are the same as at Table 5.5c.

Table 6.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 22 | 22 | 84.70 | 14 | 14 | 74.65 | 30 | 30 | 72.69 |
| 13 | 13 | 66.44 | 15 | 15 | 55.04 | 25 | 25 | 47.12 |
| 17 | 17 | 43.92 | 4 | 4 | 38.59 | 31 | 31 | 38.03 |
| 8 | 8 | 37.67 | 16 | 16 | 37.65 | 38 | 38 | 36.74 |
| 23 | 23 | 36.21 | 9 | 9 | 36.02 | 20 | 20 | 35.93 |
| 12 | 12 | 34.75 | 40 | 40 | 34.37 | 36 | 36 | 34.06 |
| 11 | 11 | 33.75 | 27 | 27 | 32.05 | 3 | 3 | 31.56 |
| 5 | 5 | 31.32 | 2 | 2 | 30.86 | 29 | 29 | 29.85 |
| 1 | 1 | 28.06 | 26 | 26 | 27.14 | 35 | 35 | 26.76 |
| 6 | 6 | 25.61 | 32 | 32 | 25.21 | 19 | 19 | 24.98 |
| 10 | 10 | 24.62 | 7 | 7 | 24.42 | 28 | 28 | 23.45 |
| 37 | 37 | 22.34 | 34 | 34 | 21.09 | 24 | 24 | 20.46 |
| 18 | 18 | 19.00 | 21 | 21 | 16.24 | 39 | 39 | 12.43 |
| 33 | 33 | 11.42 | | | | | | |
| AVERAGE: | | 34.68 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 31 | 31 | 186.60 | 17 | 17 | 180.52 | 25 | 25 | 176.93 |
| 16 | 16 | 171.66 | 15 | 15 | 154.68 | 13 | 13 | 141.90 |
| 22 | 22 | 135.73 | 30 | 30 | 109.84 | 39 | 39 | 108.26 |
| 14 | 14 | 98.57 | 19 | 19 | 87.99 | 35 | 35 | 85.80 |
| 20 | 20 | 77.05 | 1 | 1 | 72.03 | 26 | 26 | 67.91 |
| 34 | 34 | 64.12 | 27 | 27 | 63.68 | 9 | 9 | 62.61 |
| 28 | 28 | 57.31 | 40 | 40 | 55.39 | 37 | 37 | 52.33 |
| 24 | 24 | 49.38 | 23 | 23 | 49.21 | 5 | 5 | 47.30 |
| 11 | 11 | 47.21 | 32 | 32 | 46.50 | 4 | 4 | 45.17 |
| 8 | 8 | 41.34 | 18 | 18 | 37.82 | 29 | 29 | 37.77 |
| 12 | 12 | 37.19 | 2 | 2 | 35.39 | 6 | 6 | 34.12 |
| 38 | 38 | 32.89 | 33 | 33 | 32.69 | 3 | 3 | 31.15 |
| 36 | 36 | 30.41 | 10 | 10 | 29.23 | 7 | 7 | 20.50 |
| 21 | 21 | 14.54 | | | | | | |
| AVERAGE: | | 72.77 | | | | | | |

Table 6.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 38 | 38 | 0.50 | 25 | 25 | 0.53 | 29 | 29 | 0.54 |
| 37 | 37 | 0.57 | 5 | 5 | 0.60 | 34 | 34 | 0.65 |
| 23 | 23 | 0.65 | 7 | 7 | 0.65 | 33 | 33 | 0.66 |
| 2 | 2 | 0.66 | 4 | 4 | 0.66 | 26 | 26 | 0.69 |
| 9 | 9 | 0.69 | 39 | 39 | 0.69 | 40 | 40 | 0.70 |
| 8 | 8 | 0.70 | 36 | 36 | 0.71 | 1 | 1 | 0.72 |
| 3 | 3 | 0.74 | 35 | 35 | 0.75 | 22 | 22 | 0.76 |
| 31 | 31 | 0.76 | 27 | 27 | 0.77 | 24 | 24 | 0.78 |
| 6 | 6 | 0.80 | 28 | 28 | 0.81 | 32 | 32 | 0.81 |
| 30 | 30 | 0.82 | 18 | 18 | 0.87 | 19 | 19 | 0.88 |
| 21 | 21 | 0.88 | 20 | 20 | 0.88 | 10 | 10 | 0.88 |

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| 16 | 16 | 0.89 | 17 | 17 | 0.89 | 14 | 14 | 0.89 |
| 12 | 12 | 0.90 | 11 | 11 | 0.90 | 13 | 13 | 0.90 |
| 15 | 15 | 0.91 | | | | | | |
| AVERAGE: | | 0.75 | | | | | | |

Table 6.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 18.92027783 | 49.99638894 | 270.0 |
| 11 | 19.09527778 | 50.08500000 | 255.0 |
| 12 | 19.95861116 | 50.06416667 | 206.0 |
| 13 | 19.68805559 | 49.72583337 | 360.0 |
| 14 | 19.51888892 | 49.61166670 | 697.0 |
| 15 | 19.69583337 | 49.47194447 | 615.0 |
| 16 | 20.41833336 | 49.69361115 | 515.0 |
| 17 | 20.43166669 | 49.44555558 | 445.0 |
| 18 | 20.88638894 | 49.34972224 | 445.0 |
| 19 | 21.29583335 | 49.73527782 | 285.0 |
| 20 | 21.17250001 | 49.43805558 | 519.0 |
| 21 | 22.06333334 | 49.33916668 | 470.0 |
| 22 | 17.57000003 | 49.32000002 | 222.0 |
| 23 | 17.71000004 | 48.90000005 | 383.0 |
| 24 | 17.54000003 | 49.78000004 | 749.0 |
| 25 | 18.24000001 | 49.54000003 | 436.0 |
| 26 | 18.45000002 | 49.55000003 | 1322.0 |
| 27 | 18.12000001 | 49.70000004 | 250.0 |
| 28 | 23.63333337 | 50.25000001 | 252.0 |
| 29 | 23.16666668 | 49.80000004 | 232.0 |
| 30 | 23.38333335 | 49.95000005 | 245.0 |
| 31 | 23.56694447 | 49.36222224 | 275.0 |
| 32 | 23.03333334 | 49.15000001 | 594.0 |
| 33 | 22.46666669 | 48.90000005 | 205.0 |
| 34 | 19.18305556 | 49.36833335 | 780.0 |
| 35 | 19.72527782 | 49.03916667 | 640.0 |
| 36 | 19.91055560 | 49.14000001 | 972.0 |
| 37 | 20.84277782 | 49.26027779 | 485.0 |
| 38 | 21.91388894 | 49.25333335 | 305.0 |
| 39 | 22.00611111 | 48.93888894 | 176.0 |
| 40 | 18.76583337 | 49.43611113 | 468.0 |

Table 6.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 1 | 1 | 84.70 | 16 | 16 | 54.26 | 12 | 12 | 47.22 |
| 4 | 4 | 47.12 | 17 | 17 | 42.97 | 2 | 2 | 32.66 |
| 6 | 6 | 32.05 | 15 | 15 | 28.30 | 5 | 5 | 27.14 |
| 14 | 14 | 23.71 | 11 | 11 | 22.57 | 3 | 3 | 20.46 |
| 9 | 9 | 18.58 | 7 | 7 | 18.55 | 13 | 13 | 13.56 |
| 8 | 8 | 13.30 | 10 | 10 | 12.15 | | | |
| AVERAGE: | | 31.72 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 4 | 4 | 176.93 | 1 | 1 | 135.95 | 2 | 2 | 108.98 |
| 16 | 16 | 94.09 | 15 | 15 | 82.63 | 14 | 14 | 76.30 |
| 12 | 12 | 75.15 | 5 | 5 | 67.95 | 6 | 6 | 63.68 |
| 7 | 7 | 62.44 | 17 | 17 | 50.70 | 3 | 3 | 49.32 |
| 11 | 11 | 41.52 | 10 | 10 | 37.71 | 9 | 9 | 36.33 |
| 13 | 13 | 32.21 | 8 | 8 | 30.73 | | | |
| AVERAGE: | | 71.92 | | | | | | |

Table 6.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 7 | 7 | 0.53 | 4 | 4 | 0.53 | 17 | 17 | 0.54 |
| 16 | 16 | 0.65 | 8 | 8 | 0.65 | 11 | 11 | 0.66 |
| 2 | 2 | 0.67 | 5 | 5 | 0.69 | 12 | 12 | 0.69 |
| 10 | 10 | 0.69 | 9 | 9 | 0.69 | 15 | 15 | 0.72 |
| 14 | 14 | 0.73 | 13 | 13 | 0.74 | 1 | 1 | 0.76 |
| 6 | 6 | 0.77 | 3 | 3 | 0.78 | | | |
| AVERAGE: | | 0.67 | | | | | | |

The Stations are the same as at Table 4.7c.

Annex 7. Surface air pressure

Table 7.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 26505 | 9 | 247.04 | orade | 31 | 127.20 | 13703 | 1 | 125.06 |
| 48101 | 15 | 72.99 | 15307 | 2 | 50.26 | bereg | 35 | 49.44 |
| lucen | 40 | 48.64 | sacui | 32 | 45.70 | sanni | 33 | 42.39 |
| palic | 27 | 41.65 | hurba | 39 | 37.43 | 55502 | 18 | 33.90 |
| 44527 | 13 | 33.88 | 16414 | 4 | 33.51 | kosic | 41 | 32.57 |
| sombo | 28 | 32.16 | 63411 | 20 | 31.23 | khust | 36 | 29.89 |
| kikin | 29 | 29.80 | brati | 38 | 29.17 | satu | 34 | 28.17 |
| 44121 | 12 | 27.44 | slavo | 26 | 27.30 | uzhgo | 37 | 26.50 |
| arad | 30 | 25.07 | 17809 | 5 | 25.05 | 46303 | 14 | 23.97 |
| bjelo | 23 | 23.56 | daruv | 24 | 22.68 | 23201 | 6 | 22.26 |
| 23703 | 7 | 21.21 | 39113 | 11 | 20.35 | 25212 | 8 | 19.54 |
| 58113 | 19 | 18.34 | 66519 | 22 | 17.98 | 52819 | 16 | 17.94 |
| 36100 | 10 | 17.16 | 16203 | 3 | 16.37 | 64704 | 21 | 12.72 |
| 53101 | 17 | 11.18 | osije | 25 | 7.81 | | | |
| AVERAGE: | | 39.18 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|----------|--------|-------|---------|--------|-------|---------|
| 16203 | 3 | 27152.90 | 63411 | 20 | 9967.20 | 13703 | 1 | 8719.17 |
| arad | 30 | 6086.53 | 16414 | 4 | 4707.32 | 44121 | 12 | 3573.51 |
| brati | 38 | 3326.29 | 39113 | 11 | 3042.08 | 48101 | 15 | 2297.53 |
| osije | 25 | 2040.52 | palic | 27 | 2001.38 | 25212 | 8 | 1857.95 |
| 15307 | 2 | 1742.18 | 26505 | 9 | 1662.77 | 52819 | 16 | 1441.66 |
| uzhgo | 37 | 1103.15 | orade | 31 | 928.86 | bereg | 35 | 802.99 |
| slavo | 26 | 669.58 | 55502 | 18 | 633.25 | kikin | 29 | 602.56 |
| 17809 | 5 | 601.72 | 64704 | 21 | 586.28 | 23703 | 7 | 521.87 |
| satu | 34 | 515.39 | 66519 | 22 | 358.02 | 36100 | 10 | 292.15 |
| 23201 | 6 | 250.84 | 44527 | 13 | 233.37 | sacui | 32 | 225.00 |
| 58113 | 19 | 222.06 | lucen | 40 | 202.18 | hurba | 39 | 160.07 |
| daruv | 24 | 148.29 | khust | 36 | 142.72 | 53101 | 17 | 110.24 |
| sanni | 33 | 88.96 | bjelo | 23 | 86.94 | sombo | 28 | 61.51 |
| kosic | 41 | 55.29 | 46303 | 14 | 51.81 | | | |
| AVERAGE: | | 2177.42 | | | | | | |

Table 7.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 53101 | 17 | 0.77 | 26505 | 9 | 0.88 | 13703 | 1 | 0.90 |
| 52819 | 16 | 0.90 | 46303 | 14 | 0.90 | bjelo | 23 | 0.90 |
| 44527 | 13 | 0.91 | 55502 | 18 | 0.91 | 25212 | 8 | 0.91 |
| 44121 | 12 | 0.91 | 36100 | 10 | 0.92 | daruv | 24 | 0.92 |
| sanni | 33 | 0.92 | khust | 36 | 0.92 | arad | 30 | 0.92 |
| 23201 | 6 | 0.93 | uzhgo | 37 | 0.93 | 66519 | 22 | 0.93 |
| 23703 | 7 | 0.93 | brati | 38 | 0.93 | sacui | 32 | 0.93 |
| 39113 | 11 | 0.93 | slavo | 26 | 0.93 | 48101 | 15 | 0.94 |
| hurba | 39 | 0.94 | bereg | 35 | 0.94 | 17809 | 5 | 0.94 |
| 63411 | 20 | 0.94 | orade | 31 | 0.94 | 16203 | 3 | 0.94 |
| osije | 25 | 0.94 | kosic | 41 | 0.94 | lucen | 40 | 0.94 |
| 58113 | 19 | 0.94 | sombo | 28 | 0.95 | 15307 | 2 | 0.95 |

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|---|---------------------------|-------------------------|--------------------|
| palic 27 0.95 16414 4 0.95 satu 34 0.95 | | | |
| 64704 21 0.95 kikin 29 0.96 | | | |
| AVERAGE: 0.93 | | | |

Table 7.1c. Station parameters of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

| index | lambda(x) | fi(y) | h | stno | stna | country |
|-------|-------------|-------------|-------|--------|-------------------------------------|---------|
| 1 | 16.60222222 | 47.67833333 | 233.8 | 13703 | Sopron Kuruc-domb | HU |
| 2 | 16.64777777 | 47.19833333 | 201.1 | 15307 | Szombathely | HU |
| 3 | 16.30944444 | 46.91027777 | 311.7 | 16203 | Szentgotthárd Farkasfa | HU |
| 4 | 16.81280000 | 46.92580000 | 240.1 | 16414 | Zalaegerszeg Nagyutas | HU |
| 5 | 16.97060000 | 46.45610000 | 139.8 | 17809 | Nagykanizsa | HU |
| 6 | 17.26720000 | 47.88970000 | 121.0 | 23201 | Mosonmagyaróvár | HU |
| 7 | 17.67470000 | 47.71000000 | 116.7 | 23703 | Győr Likócs | HU |
| 8 | 17.37220000 | 47.29220000 | 135.5 | 25212 | Pápa Nyárád | HU |
| 9 | 17.23860000 | 46.73560000 | 111.7 | 26505 | Keszthely Tanyakereszt | HU |
| 10 | 18.04080000 | 46.91080000 | 108.2 | 36100 | Siófok | HU |
| 11 | 18.23500000 | 45.99500000 | 200.2 | 39113 | Pécs Pogány | HU |
| 12 | 19.02810000 | 47.51110000 | 153.3 | 44121 | Budapest belterület | HU |
| 13 | 19.18220000 | 47.42920000 | 139.1 | 44527 | Budapest Pestszentlőrinc-külterület | HU |
| 14 | 19.74830000 | 46.91310000 | 114.0 | 46303 | Kecskemét külterület | HU |
| 15 | 19.01670000 | 46.18330000 | 113.0 | 48101 | Baja Csávoly | HU |
| 16 | 20.77140000 | 48.09690000 | 232.8 | 52819 | Miskolc Avas | HU |
| 17 | 20.01670000 | 47.86670000 | 111.3 | 53101 | Kékestető | HU |
| 18 | 20.20000000 | 47.12860000 | 90.0 | 55502 | Szolnok Szandaszőlős | HU |
| 19 | 20.09030000 | 46.25610000 | 81.8 | 58113 | Szeged külterület | HU |
| 20 | 21.88690000 | 47.96220000 | 142.1 | 63411 | Nyíregyháza Napkor | HU |
| 21 | 21.61080000 | 47.49030000 | 107.6 | 64704 | Debrecen | HU |
| 22 | 21.16060000 | 46.67940000 | 84.0 | 66519 | Békéscsaba | HU |
| 23 | 16.85000000 | 45.91700000 | 141.0 | bjelo | Bjelovar | CR |
| 24 | 17.23300000 | 45.60000000 | 161.0 | daruv | Daruvar | CR |
| 25 | 18.63300000 | 45.53300000 | 89.0 | osije | Osijek | CR |
| 26 | 18.00000000 | 45.16600000 | 88.0 | slavo | Slavonski Brod | CR |
| 27 | 19.76410000 | 46.09720000 | 102.0 | palic | Palic | RS |
| 28 | 19.14310000 | 45.76700000 | 87.0 | sombo | Sombor | RS |
| 29 | 20.46460000 | 45.84260000 | 80.0 | kikin | Kikinda | RS |
| 30 | 21.35362152 | 46.13351640 | | arad | Arad | RO |
| 31 | 21.89592406 | 47.03570901 | | oradea | Oradea | RO |
| 32 | 22.09450716 | 47.34415862 | | sacui | Sacuieni | RO |
| 33 | 20.60156003 | 46.07128625 | | sanni | Sannicolau | RO |
| 34 | 22.88714903 | 47.72148469 | | satu | Satu Mare | RO |
| 35 | 22.60000000 | 48.20000000 | 113.0 | bereg | Bereg | UA |
| 36 | 23.30000000 | 48.20000000 | 164.0 | khust | Khust | UA |
| 37 | 22.30000000 | 48.60000000 | 115.0 | uzhgo | Uzhgorod | UA |
| 38 | 17.11060000 | 48.16860000 | 287.0 | brati | Bratislava-Koliba | SK |
| 39 | 18.19420000 | 47.87310000 | 115.0 | hurba | Hurbanovo | SK |
| 40 | 19.73600000 | 48.33900000 | 214.0 | lucen | Lucenec-Bolkovce | SK |
| 41 | 21.22250000 | 48.67220000 | 230.0 | kosic | Kosice-Letisko | SK |

Table 7.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| VGR | 21 | 132.90 | LOZ | 16 | 124.07 | SUR | 18 | 94.66 |
| ORA | 8 | 63.91 | POZ | 24 | 58.90 | CUP | 26 | 55.10 |
| SLB | 2 | 54.07 | SEM | 9 | 53.86 | BCL | 11 | 52.75 |
| NSA | 14 | 50.58 | BGD | 19 | 49.14 | CAL | 12 | 48.68 |
| BAN | 7 | 47.94 | NEG | 22 | 42.78 | SNM | 5 | 40.93 |
| BAJ | 3 | 37.06 | SZE | 4 | 36.61 | TIM | 6 | 36.06 |
| OSI | 1 | 33.43 | PAL | 13 | 29.19 | VLJ | 17 | 27.40 |
| ZLA | 23 | 25.81 | SPL | 20 | 21.33 | DTS | 10 | 18.78 |
| KRV | 25 | 17.34 | VRS | 15 | 10.52 | | | |
| AVERAGE: | | 48.61 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| NSA | 14 | 2432.87 | KRV | 25 | 2246.41 | BGD | 19 | 2154.06 |
| PAL | 13 | 1934.73 | LOZ | 16 | 1821.19 | OSI | 1 | 1623.32 |
| BAJ | 3 | 1383.88 | VGR | 21 | 1159.59 | SPL | 20 | 1098.89 |
| NEG | 22 | 969.12 | CAL | 12 | 780.73 | CUP | 26 | 403.08 |
| ORA | 8 | 382.88 | SLB | 2 | 378.75 | BAN | 7 | 284.30 |
| SUR | 18 | 284.18 | VLJ | 17 | 274.63 | SEM | 9 | 257.77 |
| SZE | 4 | 244.50 | VRS | 15 | 212.28 | BCL | 11 | 172.46 |
| POZ | 24 | 151.72 | TIM | 6 | 132.02 | DTS | 10 | 118.71 |
| SNM | 5 | 77.38 | ZLA | 23 | 43.93 | | | |
| AVERAGE: | | 808.59 | | | | | | |

Table 7.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| BAN | 7 | 0.72 | ZLA | 23 | 0.84 | BCL | 11 | 0.88 |
| DTS | 10 | 0.90 | SEM | 9 | 0.91 | TIM | 6 | 0.91 |
| NEG | 22 | 0.92 | ORA | 8 | 0.92 | CAL | 12 | 0.92 |
| SLB | 2 | 0.93 | SZE | 4 | 0.93 | VLJ | 17 | 0.93 |
| POZ | 24 | 0.93 | VRS | 15 | 0.94 | OSI | 1 | 0.94 |
| BAJ | 3 | 0.94 | KRV | 25 | 0.94 | SPL | 20 | 0.95 |
| LOZ | 16 | 0.95 | VGR | 21 | 0.95 | SNM | 5 | 0.95 |
| PAL | 13 | 0.95 | NSA | 14 | 0.95 | BGD | 19 | 0.95 |
| CUP | 26 | 0.96 | SUR | 18 | 0.96 | | | |
| AVERAGE: | | 0.92 | | | | | | |

Table 7.2c. Station parameters of the series system of Serbia and near border series from Croatia, Hungary, Romania

| index | lambda(x) | fi(y) | station |
|-------|-------------|-------------|-----------------------|
| 1 | 18.63300000 | 45.53300000 | Osijek |
| 2 | 18.00000000 | 45.16600000 | Slavonski Brod |
| 3 | 19.01666667 | 46.18333334 | Baja |
| 4 | 20.09027778 | 46.25611112 | Szeged |
| 5 | 20.60156002 | 46.07128625 | Sannicolau Mare |
| 6 | 21.25807108 | 45.77105643 | Timisoara |
| 7 | 21.13639857 | 45.38270108 | Banloc |
| 8 | 21.71048271 | 45.03871153 | Oravita |
| 9 | 22.05580461 | 45.18139466 | Semenic |
| 10 | 22.62607371 | 44.62645870 | Drobeta Turnu Severin |
| 11 | 23.11307189 | 44.47618111 | Bacles |
| 12 | 22.94605240 | 43.98489980 | Calafat |
| 13 | 19.76402300 | 46.09721800 | Palic |
| 14 | 19.83000300 | 45.32221500 | Novi Sad |
| 15 | 21.30552400 | 45.14413700 | Vrsac |
| 16 | 19.22693300 | 44.54109900 | Loznica |
| 17 | 19.91247300 | 44.27546400 | Valjevo |
| 18 | 20.29106300 | 44.82423700 | Surcin |
| 19 | 20.46482200 | 44.79845700 | Beograd |
| 20 | 20.94214600 | 44.36960000 | Smederevska Palanka |
| 21 | 21.49843000 | 44.75261400 | Veliko Gradise |
| 22 | 22.53634000 | 44.23915700 | Negotin |
| 23 | 19.71302300 | 43.73780700 | Zlatibor |
| 24 | 20.02952100 | 43.84307000 | Pozega |
| 25 | 20.69983600 | 43.70888400 | Kraljevo |
| 26 | 21.38063600 | 43.94061600 | Cuprija |

Table 7.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 13183 | 133 | 229.11 | 634322 | 95 | 213.55 | 507158 | 42 | 186.72 |
| 622544 | 91 | 154.32 | 714623 | 113 | 146.90 | 523328 | 55 | 144.31 |
| 33657 | 139 | 142.89 | 515231 | 49 | 134.86 | 546115 | 70 | 111.42 |
| 656621 | 107 | 107.27 | 600608 | 77 | 104.60 | 646247 | 100 | 104.00 |
| 501252 | 38 | 103.46 | 455200 | 34 | 102.52 | 553254 | 75 | 97.57 |
| 528518 | 62 | 95.26 | 66519 | 125 | 95.09 | 502317 | 40 | 87.14 |
| 441757 | 24 | 82.49 | 415816 | 14 | 81.91 | 445718 | 29 | 80.87 |
| 527527 | 61 | 80.36 | 611355 | 84 | 71.62 | 13285 | 132 | 67.95 |
| 509649 | 44 | 65.06 | 444417 | 27 | 64.54 | 509940 | 45 | 63.86 |
| 413838 | 12 | 62.71 | 604037 | 79 | 61.29 | 635347 | 96 | 59.79 |
| 446853 | 30 | 58.27 | 438238 | 22 | 57.99 | 359521 | 6 | 57.54 |
| 414352 | 13 | 55.81 | 708430 | 109 | 55.75 | 541154 | 67 | 54.58 |
| 511349 | 46 | 54.00 | 747356 | 121 | 53.94 | 349835 | 3 | 53.16 |
| 622303 | 90 | 52.84 | 542532 | 69 | 51.92 | 614740 | 86 | 51.73 |
| 439534 | 23 | 51.53 | 632130 | 92 | 51.39 | 359257 | 5 | 50.89 |
| 709352 | 110 | 50.58 | 58113 | 128 | 50.32 | 525215 | 58 | 50.00 |
| 656555 | 106 | 48.64 | 525323 | 59 | 48.31 | 518231 | 52 | 48.24 |
| 453344 | 32 | 47.71 | 530535 | 63 | 47.60 | 457600 | 36 | 47.03 |
| 557334 | 76 | 46.43 | 417530 | 15 | 46.32 | 739615 | 118 | 45.88 |
| 737439 | 117 | 45.66 | 55502 | 127 | 44.87 | 651305 | 103 | 44.80 |
| 13174 | 130 | 44.21 | 33647 | 138 | 43.25 | 711305 | 112 | 42.23 |
| 548409 | 71 | 42.16 | 425606 | 17 | 40.49 | 539357 | 66 | 40.33 |
| 13295 | 131 | 40.28 | 33634 | 135 | 39.73 | 500432 | 37 | 39.66 |
| 551621 | 73 | 39.52 | 538416 | 65 | 39.39 | 347357 | 2 | 39.29 |
| 608121 | 82 | 39.09 | 655522 | 104 | 38.44 | 444127 | 26 | 38.32 |
| 346452 | 1 | 37.18 | 647334 | 101 | 36.54 | 428632 | 19 | 36.09 |
| 551716 | 74 | 36.04 | 606705 | 81 | 34.31 | 63411 | 129 | 34.19 |
| 551459 | 72 | 34.15 | 33658 | 136 | 33.94 | 412721 | 11 | 33.92 |
| 523530 | 56 | 33.74 | 602213 | 78 | 33.68 | 722657 | 116 | 33.63 |
| 642540 | 99 | 33.24 | 719507 | 114 | 33.11 | 33638 | 137 | 32.91 |
| 639744 | 98 | 32.12 | 408800 | 10 | 31.76 | 511849 | 47 | 30.89 |
| 525358 | 60 | 30.88 | 454936 | 33 | 29.47 | 517507 | 50 | 29.23 |
| 655650 | 105 | 29.17 | 452452 | 31 | 28.95 | 741640 | 120 | 28.87 |
| 430608 | 20 | 28.43 | 523108 | 54 | 28.38 | 64704 | 126 | 27.76 |
| 632229 | 93 | 27.53 | 519622 | 53 | 27.38 | 422751 | 16 | 27.35 |
| 530801 | 64 | 26.54 | 502141 | 39 | 26.53 | 758355 | 124 | 26.36 |
| 517545 | 51 | 26.08 | 632432 | 94 | 25.63 | 710736 | 111 | 24.82 |
| 635658 | 97 | 24.58 | 722205 | 115 | 24.13 | 610244 | 83 | 23.73 |
| 352557 | 4 | 23.31 | 407500 | 9 | 23.13 | 748253 | 122 | 22.48 |
| 740330 | 119 | 22.38 | 443639 | 25 | 22.08 | 13173 | 134 | 21.59 |
| 506422 | 41 | 21.01 | 509441 | 43 | 20.58 | 511912 | 48 | 20.07 |
| 650727 | 102 | 19.74 | 703156 | 108 | 19.33 | 401321 | 7 | 18.12 |
| 605537 | 80 | 18.07 | 617637 | 88 | 17.74 | 406421 | 8 | 17.61 |
| 617220 | 87 | 17.53 | 541601 | 68 | 17.44 | 428307 | 18 | 16.97 |
| 618518 | 89 | 16.94 | 456526 | 35 | 16.75 | 523703 | 57 | 16.53 |
| 614436 | 85 | 15.73 | 751555 | 123 | 15.11 | 444820 | 28 | 14.91 |
| 436447 | 21 | 13.69 | | | | | | |
| AVERAGE: | | 50.26 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|----------|--------|-------|----------|--------|-------|----------|
| 647334 | 101 | 93928.69 | 414352 | 13 | 28622.34 | 553254 | 75 | 27068.42 |
| 656621 | 107 | 23776.97 | 614436 | 85 | 12698.99 | 617220 | 87 | 12695.62 |
| 446853 | 30 | 12162.44 | 608121 | 82 | 11088.78 | 622544 | 91 | 10929.27 |
| 614740 | 86 | 8642.94 | 722657 | 116 | 8092.31 | 740330 | 119 | 6925.44 |
| 655650 | 105 | 5118.80 | 622303 | 90 | 4734.94 | 618518 | 89 | 4685.44 |
| 413838 | 12 | 4319.96 | 63411 | 129 | 4237.25 | 452452 | 31 | 3915.62 |
| 635347 | 96 | 3377.19 | 739615 | 118 | 3234.42 | 502141 | 39 | 3228.97 |
| 523703 | 57 | 2972.74 | 639744 | 98 | 2911.04 | 546115 | 70 | 2807.48 |
| 527527 | 61 | 2744.44 | 501252 | 38 | 2721.71 | 605537 | 80 | 2485.51 |
| 747356 | 121 | 2405.21 | 517507 | 50 | 2397.44 | 456526 | 35 | 2122.26 |
| 557334 | 76 | 2103.30 | 13295 | 131 | 1961.83 | 511849 | 47 | 1925.10 |
| 359257 | 5 | 1872.03 | 352557 | 4 | 1871.77 | 634322 | 95 | 1795.74 |
| 610244 | 83 | 1677.66 | 454936 | 33 | 1542.91 | 602213 | 78 | 1525.86 |
| 525358 | 60 | 1454.88 | 611355 | 84 | 1418.59 | 741640 | 120 | 1384.80 |
| 444127 | 26 | 1322.08 | 523328 | 55 | 1309.48 | 444417 | 27 | 1298.98 |
| 13174 | 130 | 1210.89 | 541601 | 68 | 1196.75 | 455200 | 34 | 1098.56 |
| 439534 | 23 | 1058.46 | 443639 | 25 | 964.56 | 651305 | 103 | 954.62 |
| 632432 | 94 | 905.93 | 430608 | 20 | 898.02 | 33658 | 136 | 891.37 |
| 617637 | 88 | 875.91 | 650727 | 102 | 874.81 | 417530 | 15 | 860.16 |
| 506422 | 41 | 853.01 | 748253 | 122 | 813.72 | 422751 | 16 | 789.39 |
| 415816 | 14 | 700.49 | 517545 | 51 | 683.95 | 711305 | 112 | 674.22 |
| 606705 | 81 | 662.10 | 346452 | 1 | 648.33 | 408800 | 10 | 646.82 |
| 509441 | 43 | 633.06 | 519622 | 53 | 614.68 | 708430 | 109 | 609.46 |
| 635658 | 97 | 596.90 | 632130 | 92 | 581.89 | 428632 | 19 | 570.91 |
| 703156 | 108 | 563.49 | 530535 | 63 | 549.17 | 511912 | 48 | 546.98 |
| 530801 | 64 | 535.62 | 13285 | 132 | 532.93 | 359521 | 6 | 517.30 |
| 445718 | 29 | 511.23 | 542532 | 69 | 507.21 | 401321 | 7 | 503.59 |
| 406421 | 8 | 466.40 | 33657 | 139 | 457.55 | 655522 | 104 | 456.07 |
| 548409 | 71 | 452.14 | 438238 | 22 | 443.14 | 33638 | 137 | 432.27 |
| 642540 | 99 | 414.58 | 714623 | 113 | 385.34 | 551459 | 72 | 383.91 |
| 719507 | 114 | 374.64 | 66519 | 125 | 371.49 | 55502 | 127 | 358.29 |
| 525323 | 59 | 348.03 | 758355 | 124 | 346.22 | 523530 | 56 | 332.94 |
| 33634 | 135 | 327.40 | 502317 | 40 | 326.31 | 646247 | 100 | 320.63 |
| 347357 | 2 | 315.90 | 709352 | 110 | 314.92 | 453344 | 32 | 310.62 |
| 600608 | 77 | 291.93 | 528518 | 62 | 288.08 | 523108 | 54 | 284.30 |
| 412721 | 11 | 277.48 | 525215 | 58 | 277.11 | 509940 | 45 | 269.36 |
| 541154 | 67 | 265.72 | 33647 | 138 | 260.41 | 507158 | 42 | 257.77 |
| 441757 | 24 | 253.69 | 64704 | 126 | 251.14 | 515231 | 49 | 248.21 |
| 425606 | 17 | 240.69 | 710736 | 111 | 239.44 | 511349 | 46 | 219.77 |
| 436447 | 21 | 214.37 | 428307 | 18 | 213.00 | 722205 | 115 | 205.79 |
| 509649 | 44 | 196.44 | 13173 | 134 | 190.27 | 13183 | 133 | 176.22 |
| 518231 | 52 | 161.38 | 444820 | 28 | 160.00 | 407500 | 9 | 148.68 |
| 457600 | 36 | 137.61 | 656555 | 106 | 120.28 | 551716 | 74 | 117.79 |
| 500432 | 37 | 107.56 | 751555 | 123 | 104.53 | 632229 | 93 | 103.92 |
| 538416 | 65 | 97.97 | 551621 | 73 | 96.59 | 58113 | 128 | 94.87 |
| 604037 | 79 | 94.29 | 349835 | 3 | 67.45 | 737439 | 117 | 46.68 |
| 539357 | 66 | 30.37 | | | | | | |
| AVERAGE: | | 2754.71 | | | | | | |

Table 7.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 519622 | 53 | 0.55 | 656555 | 106 | 0.71 | 551621 | 73 | 0.75 |
| 737439 | 117 | 0.76 | 527527 | 61 | 0.76 | 523328 | 55 | 0.80 |
| 646247 | 100 | 0.81 | 515231 | 49 | 0.81 | 539357 | 66 | 0.83 |
| 523530 | 56 | 0.83 | 618518 | 89 | 0.84 | 346452 | 1 | 0.84 |
| 634322 | 95 | 0.84 | 525358 | 60 | 0.85 | 719507 | 114 | 0.85 |
| 518231 | 52 | 0.86 | 441757 | 24 | 0.87 | 632229 | 93 | 0.88 |

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|-----------------------------|-----|---------------------------|--------|-------------------------|------|--------------------|-----|------|
| 747356 | 121 | 0.88 | 541601 | 68 | 0.89 | 55502 | 127 | 0.89 |
| 507158 | 42 | 0.89 | 501252 | 38 | 0.89 | 525215 | 58 | 0.90 |
| 635347 | 96 | 0.90 | 408800 | 10 | 0.90 | 525323 | 59 | 0.90 |
| 415816 | 14 | 0.90 | 610244 | 83 | 0.90 | 438238 | 22 | 0.91 |
| 511849 | 47 | 0.91 | 430608 | 20 | 0.91 | 452452 | 31 | 0.91 |
| 511349 | 46 | 0.91 | 551459 | 72 | 0.91 | 622303 | 90 | 0.91 |
| 456526 | 35 | 0.91 | 739615 | 118 | 0.91 | 63411 | 129 | 0.91 |
| 64704 | 126 | 0.91 | 509940 | 45 | 0.91 | 528518 | 62 | 0.91 |
| 557334 | 76 | 0.91 | 523703 | 57 | 0.91 | 722657 | 116 | 0.91 |
| 530801 | 64 | 0.92 | 66519 | 125 | 0.92 | 455200 | 34 | 0.92 |
| 605537 | 80 | 0.92 | 425606 | 17 | 0.92 | 33658 | 136 | 0.92 |
| 349835 | 3 | 0.92 | 740330 | 119 | 0.92 | 642540 | 99 | 0.92 |
| 33657 | 139 | 0.92 | 523108 | 54 | 0.92 | 511912 | 48 | 0.92 |
| 443639 | 25 | 0.92 | 650727 | 102 | 0.92 | 436447 | 21 | 0.92 |
| 428307 | 18 | 0.92 | 551716 | 74 | 0.92 | 614740 | 86 | 0.92 |
| 751555 | 123 | 0.92 | 506422 | 41 | 0.92 | 444820 | 28 | 0.92 |
| 722205 | 115 | 0.92 | 454936 | 33 | 0.92 | 33634 | 135 | 0.92 |
| 500432 | 37 | 0.93 | 709352 | 110 | 0.93 | 517545 | 51 | 0.93 |
| 741640 | 120 | 0.93 | 428632 | 19 | 0.93 | 13183 | 133 | 0.93 |
| 414352 | 13 | 0.93 | 517507 | 50 | 0.93 | 406421 | 8 | 0.93 |
| 509649 | 44 | 0.93 | 439534 | 23 | 0.93 | 33647 | 138 | 0.93 |
| 651305 | 103 | 0.93 | 606705 | 81 | 0.93 | 352557 | 4 | 0.93 |
| 710736 | 111 | 0.93 | 422751 | 16 | 0.93 | 604037 | 79 | 0.93 |
| 502317 | 40 | 0.93 | 617637 | 88 | 0.93 | 703156 | 108 | 0.93 |
| 541154 | 67 | 0.93 | 530535 | 63 | 0.93 | 13295 | 131 | 0.93 |
| 622544 | 91 | 0.93 | 359257 | 5 | 0.93 | 542532 | 69 | 0.93 |
| 33638 | 137 | 0.93 | 347357 | 2 | 0.93 | 502141 | 39 | 0.93 |
| 548409 | 71 | 0.94 | 453344 | 32 | 0.94 | 509441 | 43 | 0.94 |
| 538416 | 65 | 0.94 | 58113 | 128 | 0.94 | 446853 | 30 | 0.94 |
| 614436 | 85 | 0.94 | 639744 | 98 | 0.94 | 444127 | 26 | 0.94 |
| 13174 | 130 | 0.94 | 611355 | 84 | 0.94 | 407500 | 9 | 0.94 |
| 359521 | 6 | 0.94 | 617220 | 87 | 0.94 | 758355 | 124 | 0.94 |
| 647334 | 101 | 0.94 | 655522 | 104 | 0.94 | 412721 | 11 | 0.94 |
| 608121 | 82 | 0.94 | 13285 | 132 | 0.94 | 655650 | 105 | 0.94 |
| 748253 | 122 | 0.94 | 635658 | 97 | 0.94 | 602213 | 78 | 0.94 |
| 445718 | 29 | 0.94 | 553254 | 75 | 0.94 | 13173 | 134 | 0.94 |
| 413838 | 12 | 0.94 | 600608 | 77 | 0.94 | 401321 | 7 | 0.94 |
| 708430 | 109 | 0.94 | 714623 | 113 | 0.95 | 417530 | 15 | 0.95 |
| 632130 | 92 | 0.95 | 632432 | 94 | 0.95 | 457600 | 36 | 0.95 |
| 444417 | 27 | 0.95 | 656621 | 107 | 0.95 | 711305 | 112 | 0.95 |
| 546115 | 70 | 0.96 | | | | | | |

Table 7.3c. Station parameters of the series system of Romania and near border series from Serbia, Hungary, Ukraine

| index | lambda(x) | fi(y) | stno | stna | country |
|-------|-----------|-----------|--------|-------------|---------|
| 1 | 24.879770 | 43.760420 | 346452 | TURNU MAGU | RO |
| 2 | 23.945686 | 43.790056 | 347357 | BECHET | RO |
| 3 | 28.588980 | 43.816470 | 349835 | MANGALIA | RO |
| 4 | 25.934221 | 43.875470 | 352557 | GIURGIU | RO |
| 5 | 22.947569 | 43.985246 | 359257 | CALAFAT | RO |
| 6 | 25.354370 | 43.978290 | 359521 | ALEXANDRIA | RO |
| 7 | 23.332620 | 44.029510 | 401321 | BAILABLESTI | RO |
| 8 | 24.358813 | 44.100444 | 406421 | CARACAL | RO |
| 9 | 24.980030 | 44.107740 | 407500 | ROSIORII D | RO |
| 10 | 27.967130 | 44.088620 | 408800 | ADAMCLISI | RO |
| 11 | 27.339860 | 44.206430 | 412721 | CALARASI | RO |
| 12 | 28.646380 | 44.214090 | 413838 | CONSTANTA | RO |
| 13 | 23.868460 | 44.310600 | 414352 | CRAIOVA | RO |
| 14 | 28.252880 | 44.243560 | 415816 | MEDGDIA | RO |
| 15 | 25.538540 | 44.283260 | 417530 | VIDELE | RO |
| 16 | 27.840478 | 44.391784 | 422751 | FETESTI | RO |
| 17 | 26.095322 | 44.412355 | 425606 | BUCURESTI | RO |
| 18 | 23.114580 | 44.476720 | 428307 | BICLES | RO |
| 19 | 26.525051 | 44.453228 | 428632 | FUNDULEA | RO |
| 20 | 26.079760 | 44.510820 | 430608 | BUCURESTI | RO |
| 21 | 24.791530 | 44.562880 | 436447 | STOLNICI | RO |

| | | | | | | |
|-----|-----------|-----------|--------|-------|------------|----|
| 22 | 22.627650 | 44.626730 | 438238 | 73 | DR.TR.SEVE | RO |
| 23 | 25.580740 | 44.653200 | 439534 | 155 | TITU | RO |
| 24 | 27.965080 | 44.692000 | 441757 | 33 | HIRSOVA | RO |
| 25 | 26.658560 | 44.721950 | 443639 | 57 | URZICENI | RO |
| 26 | 21.634610 | 44.722850 | 444127 | 79 | MOLDOVA VE | RO |
| 27 | 24.238708 | 44.665755 | 444417 | 274 | DRAGASANI | RO |
| 28 | 28.343580 | 44.734700 | 444820 | 221 | CORUGEA | RO |
| 29 | 27.295990 | 44.740960 | 445718 | 43 | GRIVITA | RO |
| 30 | 28.877930 | 44.766410 | 446853 | 37 | JURILLOVCA | RO |
| 31 | 24.867460 | 44.849290 | 452452 | 322 | PITESTI | RO |
| 32 | 23.710236 | 44.878418 | 453344 | 267 | TG.LOGREST | RO |
| 33 | 29.600520 | 44.896870 | 454936 | 1 | SF. GH. DE | RO |
| 34 | 22.007738 | 44.918651 | 455200 | 251 | BOZOVICI | RO |
| 35 | 25.427260 | 44.929910 | 456526 | 297 | TIRGOVISTE | RO |
| 36 | 25.988990 | 44.956090 | 457600 | 181 | PLOIESTI | RO |
| 37 | 24.571790 | 45.016290 | 500432 | 552 | DEDULESTI | RO |
| 38 | 22.861054 | 44.997136 | 501252 | 261 | PADES(APA | RO |
| 39 | 21.711840 | 45.038960 | 502141 | 303 | ORAVITA | RO |
| 40 | 23.260882 | 45.040958 | 502317 | 203 | TG.JIU | RO |
| 41 | 24.380980 | 45.089190 | 506422 | 229 | RM. VILCEA | RO |
| 42 | 22.057120 | 45.181730 | 507158 | 1432 | SEMENIC | RO |
| 43 | 24.671280 | 45.179170 | 509441 | 455 | CURTEA DE | RO |
| 44 | 26.853000 | 45.132910 | 509649 | 90 | BUZAU | RO |
| 45 | 29.760449 | 45.148694 | 509940 | -9999 | SULINA | RO |
| 46 | 23.810150 | 45.165870 | 511349 | 531 | POLOVRAGI | RO |
| 47 | 28.825690 | 45.190840 | 511849 | 2 | TULCEA | RO |
| 48 | 29.158274 | 45.177107 | 511912 | 1 | GORGOVA | RO |
| 49 | 22.534340 | 45.281170 | 515231 | 2184 | TARCU | RO |
| 50 | 25.038140 | 45.275150 | 517507 | 684 | CIMPULUNG | RO |
| 51 | 25.753950 | 45.144480 | 517545 | 486 | CIMPINA | RO |
| 52 | 22.503050 | 45.300810 | 518231 | 1478 | CUNTU | RO |
| 53 | 26.370800 | 45.324960 | 519622 | 285 | PATIRLAGEL | RO |
| 54 | 21.137974 | 45.383051 | 523108 | 80 | BANLOC | RO |
| 55 | 23.464622 | 45.387686 | 523328 | 1560 | PARING | RO |
| 56 | 25.515713 | 45.355256 | 523530 | 1511 | SINAIA(150 | RO |
| 57 | 27.040160 | 45.390750 | 523703 | 145 | RM. SARAT | RO |
| 58 | 22.226840 | 45.417560 | 525215 | 210 | CARANSEBES | RO |
| 59 | 23.378254 | 45.406610 | 525323 | 610 | PETROSANI | RO |
| 60 | 23.968553 | 45.411503 | 525358 | 579 | VOINEASA | RO |
| 61 | 25.458260 | 45.446140 | 527527 | 2514 | VF. OMU | RO |
| 62 | 25.273270 | 45.431910 | 528518 | 1372 | FUNDATA | RO |
| 63 | 25.585100 | 45.506460 | 530535 | 1101 | PREDEAL | RO |
| 64 | 28.033930 | 45.473300 | 530801 | 68 | GALATI | RO |
| 65 | 24.273180 | 45.653180 | 538416 | 506 | BOITA | RO |
| 66 | 23.934000 | 45.657510 | 539357 | 1466 | PALTINIS | RO |
| 67 | 21.934630 | 45.686730 | 541154 | 122 | LUGOJ | RO |
| 68 | 26.058304 | 45.668545 | 541601 | 697 | INT.BUZAUL | RO |
| 69 | 25.527720 | 45.696130 | 542532 | 537 | BRASOV | RO |
| 70 | 21.259360 | 45.771460 | 546115 | 87 | TIMIISOARA | RO |
| 71 | 24.092940 | 45.789700 | 548409 | 446 | SIBIU | RO |
| 72 | 24.936720 | 45.836360 | 551459 | 428 | FAGARAS | RO |
| 73 | 26.377080 | 45.824010 | 551621 | 1783 | LACAUTI | RO |
| 74 | 27.410360 | 45.841950 | 551716 | 58 | TECUCI | RO |
| 75 | 22.900460 | 45.865040 | 553254 | 236 | DEVA | RO |
| 76 | 23.543090 | 45.964530 | 557334 | 254 | SEBES-ALBA | RO |
| 77 | 26.116870 | 45.993240 | 600608 | 570 | TG.SECUIES | RO |
| 78 | 22.152420 | 46.019490 | 602213 | 152 | VARADIA DE | RO |
| 79 | 20.603163 | 46.071633 | 604037 | 82 | SINNICOLU | RO |
| 80 | 25.597400 | 46.081040 | 605537 | 508 | BARAOLT | RO |
| 81 | 27.171810 | 46.105020 | 606705 | 103 | ADJUD | RO |
| 82 | 21.355219 | 46.133851 | 608121 | 115 | ARAD | RO |
| 83 | 22.727700 | 46.169760 | 610244 | 268 | TEBEA | RO |
| 84 | 23.936770 | 46.178820 | 611355 | 327 | BLAJ | RO |
| 85 | 24.593180 | 46.228250 | 614436 | 320 | DUMBRAVENI | RO |
| 86 | 27.645580 | 46.231360 | 614740 | 167 | BIRLAD | RO |
| 87 | 22.334897 | 46.279508 | 617220 | 175 | GURAHONT | RO |
| 88 | 26.642590 | 46.272960 | 617637 | 245 | TG. OCNA | RO |
| 89 | 25.293340 | 46.297090 | 618518 | 522 | ODORHEIUL | RO |
| 90 | 23.041950 | 46.364100 | 622303 | 618 | CIMPENI(BI | RO |
| 91 | 25.774170 | 46.371580 | 622544 | 665 | MIERCUREA | RO |
| 92 | 21.543000 | 46.518940 | 632130 | 93 | CHISINEU C | RO |
| 93 | 22.468092 | 46.528317 | 632229 | 282 | STEI | RO |
| 94 | 24.535330 | 46.533680 | 632432 | 306 | TG.MURES | RO |
| 95 | 23.311820 | 46.535770 | 634322 | 1355 | BAISOARA | RO |
| 96 | 23.792840 | 46.583390 | 635347 | 424 | TURDA | RO |
| 97 | 26.914070 | 46.532150 | 635658 | 184 | BACAU | RO |
| 98 | 27.715830 | 46.646240 | 639744 | 117 | VASLUI | RO |
| 99 | 25.514170 | 46.706080 | 642540 | 752 | JOSENI | RO |
| 100 | 22.795790 | 46.759560 | 646247 | 1843 | VLADEASA 1 | RO |
| 101 | 23.572990 | 46.777990 | 647334 | 407 | CLUJ-NAPOC | RO |
| 102 | 27.443695 | 46.838328 | 650727 | 132 | NEGRESTI(V | RO |

| | | | | | | |
|-----|-----------|-----------|--------|------|------------|----|
| 103 | 23.034120 | 46.857650 | 651305 | 560 | HUEDIN | RO |
| 104 | 25.361530 | 46.926640 | 655522 | 675 | TOPLITA | RO |
| 105 | 26.913390 | 46.969460 | 655650 | 220 | ROMAN | RO |
| 106 | 25.951510 | 46.977760 | 656555 | 1873 | CEAHLAU TO | RO |
| 107 | 26.390900 | 46.934020 | 656621 | 360 | PIATRA NEA | RO |
| 108 | 21.897545 | 47.036020 | 703156 | 134 | ORADEA | RO |
| 109 | 24.515450 | 47.149420 | 708430 | 370 | BISTRITA | RO |
| 110 | 23.900500 | 47.128260 | 709352 | 236 | DEJ | RO |
| 111 | 27.630080 | 47.171060 | 710736 | 100 | IASI | RO |
| 112 | 23.048360 | 47.195280 | 711305 | 294 | ZALAU | RO |
| 113 | 26.380590 | 47.212430 | 714623 | 386 | TG. NEAMT | RO |
| 114 | 25.136044 | 47.324920 | 719507 | 922 | POIANA STA | RO |
| 115 | 22.095800 | 47.344470 | 722205 | 119 | SACUIENI | RO |
| 116 | 26.927410 | 47.358670 | 722657 | 286 | COTNARI | RO |
| 117 | 24.650730 | 47.602830 | 737439 | 1789 | IEZER | RO |
| 118 | 26.241960 | 47.633280 | 739615 | 360 | SUCEAVA | RO |
| 119 | 23.493240 | 47.661210 | 740330 | 211 | BAIA-MARE | RO |
| 120 | 26.647040 | 47.736050 | 741640 | 152 | BOTOSANI | RO |
| 121 | 23.942140 | 47.777370 | 747356 | 503 | OC.SUGATAG | RO |
| 122 | 22.888782 | 47.721768 | 748253 | 121 | SATU MARE | RO |
| 123 | 25.891850 | 47.838010 | 751555 | 385 | RADAUTI | RO |
| 124 | 23.905880 | 47.939570 | 758355 | 272 | SIGHETUL M | RO |
| 125 | 21.160556 | 46.679444 | 66519 | | Békéscsaba | HU |
| 126 | 21.610833 | 47.490278 | 64704 | | Debrecen | HU |
| 127 | 20.200000 | 47.128600 | 55502 | | Szolnok Sz | HU |
| 128 | 20.090300 | 46.256100 | 58113 | | Szeged kül | HU |
| 129 | 21.886900 | 47.962200 | 63411 | | Nyíregyház | HU |
| 130 | 20.464640 | 45.842634 | 13174 | | KIKINDA | SR |
| 131 | 22.536340 | 44.239157 | 13295 | | NEGOTIN | SR |
| 132 | 21.498430 | 44.752614 | 13285 | | VELIKO GRA | SR |
| 133 | 21.305524 | 45.144137 | 13183 | | VRSAC-kont | SR |
| 134 | 20.376008 | 45.398724 | 13173 | | ZRENJANIN | SR |
| 135 | 22.650000 | 48.200000 | 33634 | | Beregove | UA |
| 136 | 25.972500 | 48.266389 | 33658 | | Chernivtsi | UA |
| 137 | 23.300000 | 48.183330 | 33638 | | Khust | UA |
| 138 | 24.198056 | 48.047500 | 33647 | | Rakhiv | UA |
| 139 | 25.216667 | 47.883333 | 33657 | | Seliatyn | UA |

Table 7.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 16 | 16 | 418.13 | 45 | 45 | 250.30 | 11 | 11 | 184.05 |
| 40 | 40 | 166.38 | 24 | 24 | 78.09 | 47 | 47 | 71.38 |
| 1 | 1 | 63.20 | 19 | 19 | 51.32 | 41 | 41 | 46.49 |
| 37 | 37 | 44.53 | 43 | 43 | 44.46 | 4 | 4 | 39.21 |
| 26 | 26 | 39.12 | 6 | 6 | 35.67 | 35 | 35 | 35.05 |
| 20 | 20 | 34.66 | 36 | 36 | 34.65 | 39 | 39 | 33.05 |
| 46 | 46 | 31.03 | 38 | 38 | 30.82 | 32 | 32 | 30.26 |
| 27 | 27 | 30.21 | 49 | 49 | 27.21 | 17 | 17 | 27.08 |
| 10 | 10 | 26.62 | 7 | 7 | 26.05 | 3 | 3 | 24.02 |
| 25 | 25 | 23.78 | 29 | 29 | 23.71 | 28 | 28 | 23.67 |
| 23 | 23 | 22.84 | 42 | 42 | 21.37 | 5 | 5 | 21.33 |
| 8 | 8 | 20.34 | 44 | 44 | 19.97 | 21 | 21 | 19.32 |
| 30 | 30 | 19.08 | 22 | 22 | 18.83 | 15 | 15 | 17.99 |
| 12 | 12 | 16.36 | 31 | 31 | 15.25 | 33 | 33 | 14.73 |
| 13 | 13 | 14.17 | 18 | 18 | 12.81 | 9 | 9 | 12.80 |
| 2 | 2 | 12.69 | 48 | 48 | 12.38 | 34 | 34 | 11.07 |
| 14 | 14 | 10.20 | | | | | | |
| AVERAGE: | | 47.10 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|----------|--------|-------|----------|--------|-------|----------|
| 15 | 15 | 36335.42 | 41 | 41 | 23243.24 | 33 | 33 | 17726.84 |
| 18 | 18 | 12048.89 | 4 | 4 | 8335.93 | 48 | 48 | 7293.49 |
| 37 | 37 | 5926.54 | 8 | 8 | 5655.97 | 19 | 19 | 4457.74 |
| 26 | 26 | 4380.33 | 32 | 32 | 3177.25 | 9 | 9 | 3147.50 |
| 25 | 25 | 2963.71 | 22 | 22 | 2917.03 | 47 | 47 | 2293.80 |
| 12 | 12 | 2265.06 | 7 | 7 | 2238.49 | 24 | 24 | 1899.86 |
| 40 | 40 | 1603.50 | 35 | 35 | 1073.11 | 49 | 49 | 1015.60 |
| 14 | 14 | 788.02 | 34 | 34 | 756.58 | 29 | 29 | 743.22 |
| 46 | 46 | 687.48 | 43 | 43 | 430.00 | 21 | 21 | 395.20 |
| 36 | 36 | 344.11 | 1 | 1 | 316.69 | 39 | 39 | 288.94 |
| 2 | 2 | 283.46 | 31 | 31 | 283.04 | 17 | 17 | 282.52 |
| 44 | 44 | 280.53 | 30 | 30 | 267.44 | 6 | 6 | 265.69 |
| 38 | 38 | 251.72 | 45 | 45 | 249.11 | 13 | 13 | 242.79 |
| 20 | 20 | 177.20 | 16 | 16 | 145.89 | 28 | 28 | 136.27 |
| 3 | 3 | 121.96 | 11 | 11 | 96.99 | 42 | 42 | 93.69 |
| 27 | 27 | 90.18 | 10 | 10 | 87.28 | 5 | 5 | 74.42 |
| 23 | 23 | 44.47 | | | | | | |
| AVERAGE: | | 3229.06 | | | | | | |

Table 7.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 49 | 49 | 0.83 | 28 | 28 | 0.83 | 37 | 37 | 0.86 |
| 47 | 47 | 0.88 | 16 | 16 | 0.88 | 33 | 33 | 0.89 |
| 40 | 40 | 0.90 | 1 | 1 | 0.91 | 19 | 19 | 0.91 |
| 4 | 4 | 0.91 | 42 | 42 | 0.92 | 22 | 22 | 0.92 |
| 3 | 3 | 0.92 | 48 | 48 | 0.92 | 15 | 15 | 0.92 |
| 9 | 9 | 0.92 | 34 | 34 | 0.92 | 8 | 8 | 0.92 |

| CARPATCLIM | | Date | | Version | | Page | | |
|---------------|----|-------------------|----|--------------|------|------------|----|------|
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| 11 | 11 | 0.93 | 43 | 43 | 0.93 | 39 | 39 | 0.93 |
| 5 | 5 | 0.93 | 45 | 45 | 0.93 | 29 | 29 | 0.93 |
| 27 | 27 | 0.93 | 36 | 36 | 0.93 | 30 | 30 | 0.93 |
| 10 | 10 | 0.94 | 6 | 6 | 0.94 | 35 | 35 | 0.94 |
| 32 | 32 | 0.94 | 20 | 20 | 0.94 | 26 | 26 | 0.94 |
| 21 | 21 | 0.94 | 14 | 14 | 0.94 | 24 | 24 | 0.94 |
| 2 | 2 | 0.94 | 12 | 12 | 0.94 | 44 | 44 | 0.94 |
| 18 | 18 | 0.94 | 25 | 25 | 0.95 | 17 | 17 | 0.95 |
| 46 | 46 | 0.95 | 38 | 38 | 0.95 | 41 | 41 | 0.95 |
| 7 | 7 | 0.95 | 13 | 13 | 0.95 | 31 | 31 | 0.95 |
| 23 | 23 | 0.96 | | | | | | |
| AVERAGE: | | 0.92 | | | | | | |

Table 7.4c. Station parameters of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 24.75000004 | 50.90000005 | 198.0 |
| 2 | 23.63333337 | 50.25000001 | 252.0 |
| 3 | 27.04027778 | 50.16194445 | 277.0 |
| 4 | 25.73333337 | 50.13333334 | 259.0 |
| 5 | 24.35000002 | 50.11666667 | 212.0 |
| 6 | 25.15000001 | 50.08333334 | 227.0 |
| 7 | 23.38333335 | 49.95000005 | 245.0 |
| 8 | 26.20500001 | 49.94805560 | 274.0 |
| 9 | 23.96527783 | 49.80750004 | 319.0 |
| 10 | 23.16666668 | 49.80000004 | 232.0 |
| 11 | 27.93333338 | 49.56666670 | 284.0 |
| 12 | 25.68333337 | 49.53333336 | 327.0 |
| 13 | 24.95000005 | 49.43333336 | 303.0 |
| 14 | 23.56694447 | 49.36222224 | 275.0 |
| 15 | 26.93750005 | 49.35361113 | 350.0 |
| 16 | 23.81666671 | 49.25000001 | 302.0 |
| 17 | 23.03333334 | 49.15000001 | 594.0 |
| 18 | 25.76666671 | 49.01666667 | 320.0 |
| 19 | 28.13333334 | 49.01666667 | 313.0 |
| 20 | 24.00000000 | 48.96666672 | 470.0 |
| 21 | 22.46666669 | 48.90000005 | 205.0 |
| 22 | 24.68888892 | 48.88944449 | 275.0 |
| 23 | 23.45000002 | 48.85000004 | 592.0 |
| 24 | 27.26666668 | 48.85000004 | 292.0 |
| 25 | 23.10000001 | 48.76666671 | 496.0 |
| 26 | 23.36666669 | 48.70000004 | 615.0 |
| 27 | 26.60861114 | 48.69333337 | 217.0 |
| 28 | 23.20694446 | 48.65888892 | 1330.0 |
| 29 | 22.26666668 | 48.63333337 | 113.0 |
| 30 | 25.03333334 | 48.53333336 | 295.0 |
| 31 | 23.50444447 | 48.52666669 | 456.0 |
| 32 | 24.55000003 | 48.45000002 | 531.0 |
| 33 | 27.78333337 | 48.45000002 | 77.0 |
| 34 | 25.97250005 | 48.26638890 | 242.0 |
| 35 | 22.65000003 | 48.20000001 | 113.0 |
| 36 | 23.30000002 | 48.18333334 | 164.0 |
| 37 | 24.53333336 | 48.15000001 | 1451.0 |
| 38 | 24.19805557 | 48.04750000 | 430.0 |
| 39 | 25.21666668 | 47.88333338 | 762.0 |
| 40 | 22.05000000 | 50.10000001 | 212.0 |
| 41 | 22.33333335 | 49.46666669 | 420.0 |
| 42 | 22.00583333 | 48.93888894 | 176.0 |
| 43 | 21.61083336 | 47.49027780 | 107.6 |
| 44 | 23.90416671 | 47.93916672 | 276.0 |
| 45 | 25.89027782 | 47.83777782 | 100.0 |
| 46 | 22.88722227 | 47.72138893 | 124.0 |
| 47 | 23.94055560 | 47.77694448 | 100.0 |
| 48 | 23.49138891 | 47.66083337 | 100.0 |
| 49 | 24.64888892 | 47.60277781 | 100.0 |

Table 7.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11774 | 24 | 165.75 | 11993 | 8 | 165.27 | 11787 | 25 | 114.87 |
| 11938 | 6 | 93.65 | 660 | 22 | 82.46 | 33511 | 10 | 79.13 |
| 53101 | 17 | 72.27 | 23201 | 13 | 63.84 | 44121 | 15 | 63.04 |
| 650 | 21 | 54.34 | 690 | 23 | 52.91 | 11968 | 7 | 48.62 |
| 11782 | 26 | 43.35 | 63411 | 18 | 37.83 | 11927 | 5 | 36.94 |
| 11813 | 1 | 34.90 | 11819 | 2 | 30.77 | 52819 | 16 | 29.30 |
| 33514 | 12 | 28.93 | 11903 | 4 | 25.72 | 625 | 20 | 24.20 |
| 11858 | 3 | 22.27 | 600 | 19 | 16.80 | 23703 | 14 | 15.56 |
| 33631 | 11 | 14.02 | 33634 | 9 | 12.88 | | | |
| AVERAGE: | | 54.99 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|----------|--------|-------|---------|--------|-------|---------|
| 690 | 23 | 32413.02 | 625 | 20 | 3741.77 | 44121 | 15 | 2954.99 |
| 52819 | 16 | 2466.74 | 11813 | 1 | 2443.66 | 600 | 19 | 1146.41 |
| 11819 | 2 | 1121.22 | 63411 | 18 | 1042.76 | 11858 | 3 | 816.99 |
| 33631 | 11 | 626.83 | 11774 | 24 | 613.83 | 660 | 22 | 466.88 |
| 23703 | 14 | 460.07 | 33514 | 12 | 416.19 | 53101 | 17 | 308.82 |
| 11787 | 25 | 290.27 | 23201 | 13 | 259.38 | 11938 | 6 | 237.47 |
| 11903 | 4 | 218.53 | 11927 | 5 | 197.25 | 11993 | 8 | 186.20 |
| 11782 | 26 | 182.32 | 33511 | 10 | 181.42 | 11968 | 7 | 132.62 |
| 33634 | 9 | 74.69 | 650 | 21 | 49.40 | | | |
| AVERAGE: | | 2040.37 | | | | | | |

Table 7.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 650 | 21 | 0.84 | 53101 | 17 | 0.84 | 11782 | 26 | 0.89 |
| 52819 | 16 | 0.89 | 44121 | 15 | 0.90 | 11787 | 25 | 0.91 |
| 23201 | 13 | 0.92 | 33634 | 9 | 0.92 | 11938 | 6 | 0.92 |
| 23703 | 14 | 0.93 | 33511 | 10 | 0.93 | 11774 | 24 | 0.93 |
| 33631 | 11 | 0.93 | 600 | 19 | 0.93 | 11858 | 3 | 0.93 |
| 63411 | 18 | 0.94 | 660 | 22 | 0.94 | 690 | 23 | 0.94 |
| 11819 | 2 | 0.94 | 11813 | 1 | 0.94 | 11993 | 8 | 0.94 |
| 11903 | 4 | 0.94 | 11927 | 5 | 0.94 | 625 | 20 | 0.94 |
| 33514 | 12 | 0.94 | 11968 | 7 | 0.95 | | | |
| AVERAGE: | | 0.92 | | | | | | |

Table 7.5c. Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| index | lambda | fi | h | station |
|-------|-------------|-------------|--------|---------|
| 1 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 2 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 3 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 4 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 5 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 6 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 7 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 8 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 9 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 10 | 23.00000000 | 49.20000001 | 594.0 | 33511 |
| 11 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 12 | 22.50000003 | 48.90000005 | 205.0 | 33514 |
| 13 | 19.02805556 | 47.06111111 | 153.0 | 44121 |
| 14 | 17.67472226 | 47.71000004 | 117.0 | 23703 |
| 15 | 20.01666667 | 47.86666671 | 111.3 | 53101 |
| 16 | 17.26722224 | 47.88972227 | 121.0 | 23201 |
| 17 | 20.77140000 | 48.09690000 | 232.8 | 52819 |
| 18 | 21.88690000 | 47.96220000 | 142.1 | 63411 |
| 19 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 20 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 21 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 22 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 23 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 24 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 25 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 26 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 7.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 10 | 10 | 139.18 | 11 | 11 | 114.87 | 4 | 4 | 107.72 |
| 2 | 2 | 67.21 | 24 | 24 | 56.21 | 9 | 9 | 55.86 |
| 12 | 12 | 55.69 | 8 | 8 | 53.55 | 25 | 25 | 48.26 |
| 1 | 1 | 40.14 | 23 | 23 | 39.68 | 17 | 17 | 38.76 |
| 3 | 3 | 30.99 | 5 | 5 | 30.87 | 7 | 7 | 29.94 |
| 6 | 6 | 25.03 | 19 | 19 | 24.52 | 14 | 14 | 23.79 |
| 22 | 22 | 23.66 | 15 | 15 | 22.47 | 18 | 18 | 17.27 |
| 20 | 20 | 17.22 | 21 | 21 | 12.57 | 16 | 16 | 9.73 |
| 13 | 13 | 4.62 | | | | | | |
| AVERAGE: | | 43.59 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| 9 | 9 | 7147.35 | 6 | 6 | 7013.77 | 4 | 4 | 2714.53 |
| 19 | 19 | 2443.66 | 2 | 2 | 2382.81 | 1 | 1 | 1659.08 |
| 5 | 5 | 1516.44 | 15 | 15 | 1498.04 | 21 | 21 | 927.17 |
| 10 | 10 | 757.46 | 16 | 16 | 746.58 | 20 | 20 | 565.76 |
| 12 | 12 | 361.76 | 11 | 11 | 290.27 | 8 | 8 | 240.58 |
| 22 | 22 | 218.53 | 13 | 13 | 213.63 | 18 | 18 | 212.51 |
| 23 | 23 | 197.25 | 26 | 26 | 175.99 | 24 | 24 | 172.11 |
| 7 | 7 | 162.22 | 25 | 25 | 121.13 | 17 | 17 | 102.79 |
| 14 | 14 | 90.31 | 3 | 3 | 83.37 | | | |
| AVERAGE: | | 1231.35 | | | | | | |

Table 7.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 7 | 7 | 0.83 | 12 | 12 | 0.90 | 13 | 13 | 0.90 |
| 1 | 1 | 0.90 | 11 | 11 | 0.91 | 24 | 24 | 0.92 |
| 23 | 23 | 0.92 | 20 | 20 | 0.92 | 2 | 2 | 0.92 |
| 17 | 17 | 0.92 | 18 | 18 | 0.93 | 14 | 14 | 0.93 |
| 19 | 19 | 0.93 | 4 | 4 | 0.93 | 10 | 10 | 0.93 |
| 3 | 3 | 0.93 | 21 | 21 | 0.94 | 5 | 5 | 0.94 |
| 22 | 22 | 0.94 | 16 | 16 | 0.94 | 6 | 6 | 0.94 |
| 8 | 8 | 0.94 | 25 | 25 | 0.94 | 15 | 15 | 0.95 |
| 9 | 9 | 0.95 | | | | | | |
| AVERAGE: | | 0.92 | | | | | | |

Table 7.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 17.57000003 | 49.32000002 | 222.0 |
| 11 | 18.45000002 | 49.55000003 | 1322.0 |
| 12 | 18.12000001 | 49.70000004 | 250.0 |
| 13 | 23.63333337 | 50.25000001 | 252.0 |
| 14 | 23.16666668 | 49.80000004 | 232.0 |
| 15 | 23.38333335 | 49.95000005 | 245.0 |
| 16 | 23.56694447 | 49.36222224 | 275.0 |
| 17 | 23.03333334 | 49.15000001 | 594.0 |
| 18 | 22.46666669 | 48.90000005 | 205.0 |
| 19 | 17.11055556 | 48.16861112 | 287.0 |
| 20 | 17.68055559 | 48.49194447 | 178.0 |
| 21 | 18.19416668 | 47.87305560 | 115.0 |
| 22 | 19.14194445 | 48.64250003 | 313.0 |
| 23 | 19.66666670 | 48.32916668 | 187.0 |
| 24 | 20.18916668 | 48.84861115 | 901.0 |
| 25 | 21.22250001 | 48.67222226 | 230.0 |
| 26 | 22.00611111 | 48.93888894 | 176.0 |

Table 7.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 1 | 1 | 158.60 | 3 | 3 | 55.69 | 4 | 4 | 44.95 |
| 7 | 7 | 34.70 | 8 | 8 | 31.63 | 2 | 2 | 30.27 |
| 5 | 5 | 21.99 | 6 | 6 | 18.22 | | | |
| AVERAGE: | | 49.51 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| 4 | 4 | 2443.66 | 6 | 6 | 1795.17 | 7 | 7 | 1294.64 |
| 1 | 1 | 757.46 | 8 | 8 | 715.39 | 5 | 5 | 565.76 |
| 3 | 3 | 332.43 | 2 | 2 | 136.63 | | | |
| AVERAGE: | | 1005.14 | | | | | | |

Table 7.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 2 | 2 | 0.78 | 7 | 7 | 0.89 | 3 | 3 | 0.90 |
| 6 | 6 | 0.92 | 8 | 8 | 0.92 | 4 | 4 | 0.93 |
| 1 | 1 | 0.93 | 5 | 5 | 0.94 | | | |
| AVERAGE: | | 0.90 | | | | | | |

Table 7.7c. Station parameters of the series system of Czech Republic and near border series from Slovakia, Poland

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 17.57000003 | 49.32000002 | 222.0 |
| 2 | 18.45000002 | 49.55000003 | 1322.0 |
| 3 | 18.12000001 | 49.70000004 | 250.0 |
| 4 | 17.11055556 | 48.16861112 | 287.0 |
| 5 | 17.68055559 | 48.49194447 | 178.0 |
| 6 | 18.19416668 | 47.87305560 | 115.0 |
| 7 | 18.19166668 | 50.06166667 | 206.0 |
| 8 | 19.00111111 | 49.80805560 | 398.0 |

Annex 8. Sunshine duration

Table 8.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| arad | 37 | 96.28 | sombo | 35 | 96.18 | sanni | 40 | 87.09 |
| 61709 | 27 | 78.53 | 53101 | 21 | 70.84 | satu | 41 | 64.68 |
| stos | 48 | 59.63 | osije | 32 | 56.11 | 48101 | 18 | 51.64 |
| 44527 | 15 | 49.22 | khust | 43 | 47.43 | 66519 | 30 | 46.60 |
| lucen | 47 | 36.75 | sacui | 39 | 36.23 | palic | 34 | 35.48 |
| hurba | 46 | 35.36 | kosic | 49 | 35.12 | 16203 | 4 | 33.57 |
| bereg | 42 | 32.47 | 26505 | 9 | 32.43 | kikin | 36 | 29.92 |
| 47106 | 17 | 27.32 | 44214 | 14 | 26.85 | daruv | 31 | 26.34 |
| 36100 | 10 | 25.64 | 17809 | 5 | 25.14 | 51705 | 19 | 24.23 |
| 25212 | 8 | 24.16 | 55706 | 24 | 24.13 | 52819 | 20 | 23.53 |
| 36500 | 11 | 22.35 | milho | 50 | 21.80 | 39113 | 12 | 21.32 |
| 13703 | 1 | 21.14 | 55502 | 23 | 20.48 | 23703 | 7 | 19.72 |
| 23201 | 6 | 18.86 | orade | 38 | 18.62 | 46303 | 16 | 17.74 |
| 15307 | 3 | 17.51 | 63411 | 28 | 15.43 | 14706 | 2 | 15.39 |
| uzhgo | 44 | 15.37 | 44121 | 13 | 14.89 | brati | 45 | 13.81 |
| 58113 | 26 | 13.44 | slavo | 33 | 12.38 | 56300 | 25 | 11.62 |
| 64704 | 29 | 11.56 | 53521 | 22 | 10.01 | | | |
| AVERAGE: | | 33.45 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| satu | 41 | 1535.49 | 44527 | 15 | 612.06 | 61709 | 27 | 491.34 |
| 13703 | 1 | 463.93 | 58113 | 26 | 442.50 | arad | 37 | 432.26 |
| stos | 48 | 370.80 | 47106 | 17 | 329.94 | 17809 | 5 | 316.62 |
| 46303 | 16 | 306.33 | khust | 43 | 302.48 | 53101 | 21 | 269.39 |
| milho | 50 | 202.02 | 39113 | 12 | 183.76 | 66519 | 30 | 174.57 |
| 63411 | 28 | 166.75 | 44214 | 14 | 161.37 | 23201 | 6 | 159.21 |
| kosic | 49 | 149.19 | sombo | 35 | 142.41 | 52819 | 20 | 140.13 |
| 26505 | 9 | 131.65 | 55706 | 24 | 129.23 | sanni | 40 | 129.13 |
| 64704 | 29 | 129.04 | 44121 | 13 | 125.03 | 55502 | 23 | 118.16 |
| 56300 | 25 | 107.37 | 36500 | 11 | 106.39 | 23703 | 7 | 103.42 |
| palic | 34 | 102.36 | daruv | 31 | 95.37 | 48101 | 18 | 92.10 |
| 14706 | 2 | 87.78 | osije | 32 | 85.51 | 15307 | 3 | 82.32 |
| 16203 | 4 | 76.13 | kikin | 36 | 73.72 | lucen | 47 | 64.88 |
| bereg | 42 | 60.08 | sacui | 39 | 56.45 | orade | 38 | 54.69 |
| 51705 | 19 | 44.35 | 25212 | 8 | 41.06 | slavo | 33 | 39.06 |
| 36100 | 10 | 37.24 | brati | 45 | 35.76 | hurba | 46 | 29.29 |
| uzhgo | 44 | 27.38 | 53521 | 22 | 26.28 | | | |
| AVERAGE: | | 192.88 | | | | | | |

Table 8.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| lucen | 47 | 0.65 | 61709 | 27 | 0.67 | satu | 41 | 0.68 |
| 55502 | 23 | 0.69 | 56300 | 25 | 0.69 | stos | 48 | 0.70 |
| 63411 | 28 | 0.70 | milho | 50 | 0.71 | 13703 | 1 | 0.72 |
| hurba | 46 | 0.72 | 44214 | 14 | 0.72 | 44121 | 13 | 0.74 |
| khust | 43 | 0.74 | brati | 45 | 0.74 | sanni | 40 | 0.75 |
| 53101 | 21 | 0.75 | arad | 37 | 0.75 | 64704 | 29 | 0.76 |
| palic | 34 | 0.76 | bereg | 42 | 0.76 | 58113 | 26 | 0.77 |

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|-----------------------------|----|---------------------------|-------|-------------------------|------|--------------------|----|------|
| 52819 | 20 | 0.77 | 53521 | 22 | 0.77 | 26505 | 9 | 0.77 |
| orade | 38 | 0.78 | 55706 | 24 | 0.78 | 48101 | 18 | 0.78 |
| 16203 | 4 | 0.78 | 14706 | 2 | 0.78 | 36100 | 10 | 0.78 |
| uzhgo | 44 | 0.78 | 15307 | 3 | 0.78 | 39113 | 12 | 0.79 |
| 25212 | 8 | 0.79 | 23703 | 7 | 0.80 | sacui | 39 | 0.80 |
| 66519 | 30 | 0.80 | 47106 | 17 | 0.80 | 51705 | 19 | 0.81 |
| kosic | 49 | 0.81 | 36500 | 11 | 0.81 | 23201 | 6 | 0.82 |
| osije | 32 | 0.82 | kikin | 36 | 0.82 | sombo | 35 | 0.82 |
| 17809 | 5 | 0.83 | 46303 | 16 | 0.83 | 44527 | 15 | 0.83 |
| slavo | 33 | 0.85 | daruv | 31 | 0.86 | | | |
| AVERAGE: | | 0.77 | | | | | | |

Table 8.1c. Station parameters of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

| index | lambda(x) | fi(y) | h | stno | stna | country |
|-------|-------------|-------------|-------|-------|--------------------------|---------|
| 1 | 16.60222222 | 47.67833333 | 233.8 | 13703 | Sopron Kuruc-domb | HU |
| 2 | 16.72916666 | 47.48138888 | 198.9 | 14706 | Sopronhorpács | HU |
| 3 | 16.64777777 | 47.19833333 | 201.1 | 15307 | Szombathely | HU |
| 4 | 16.30944444 | 46.91027777 | 311.7 | 16203 | Szentgotthárd Farkasfa | HU |
| 5 | 16.97060000 | 46.45610000 | 139.8 | 17809 | Nagykanizsa | HU |
| 6 | 17.26720000 | 47.88970000 | 121.0 | 23201 | Mosonmagyaróvár | HU |
| 7 | 17.67470000 | 47.71000000 | 116.7 | 23703 | Győr Likócs | HU |
| 8 | 17.37220000 | 47.29220000 | 135.5 | 25212 | Pápa Nyárád | HU |
| 9 | 17.23860000 | 46.73560000 | 111.7 | 26505 | Keszthely Tanyakereszt | HU |
| 10 | 18.04080000 | 46.91080000 | 108.2 | 36100 | Siófok | HU |
| 11 | 18.18360000 | 46.68560000 | 165.0 | 36500 | Iregszemcse | HU |
| 12 | 18.23500000 | 45.99500000 | 200.2 | 39113 | Pécs Pogány | HU |
| 13 | 19.02810000 | 47.51110000 | 153.3 | 44121 | Budapest belterület | HU |
| 14 | 19.47640000 | 47.65560000 | 162.4 | 44214 | Aszód | HU |
| 15 | 19.18220000 | 47.42920000 | 139.1 | 44527 | Budapest Pestszentlőrinc | HU |
| 16 | 19.74830000 | 46.91310000 | 114.0 | 46303 | Kecskemét külterület | HU |
| 17 | 19.09890000 | 46.51030000 | 93.6 | 47106 | Kalocsa Öregcsertő | HU |
| 18 | 19.01670000 | 46.18330000 | 113.0 | 48101 | Baja Csávoly | HU |
| 19 | 20.53610000 | 48.49530000 | 308.9 | 51705 | Jósvafő | HU |
| 20 | 20.77140000 | 48.09690000 | 232.8 | 52819 | Miskolc Avas | HU |
| 21 | 20.01670000 | 47.86670000 | 111.3 | 53101 | Kékestető | HU |
| 22 | 20.23580000 | 47.73970000 | 123.3 | 53521 | Kompolt | HU |
| 23 | 20.20000000 | 47.12860000 | 90.0 | 55502 | Szolnok Szandaszőlős | HU |
| 24 | 20.74000000 | 47.10640000 | 85.9 | 55706 | Túrkeve | HU |
| 25 | 20.52780000 | 46.86940000 | 85.4 | 56300 | Szarvas | HU |
| 26 | 20.09030000 | 46.25610000 | 81.8 | 58113 | Szeged külterület | HU |
| 27 | 21.65890000 | 48.38080000 | 100.4 | 61709 | Sátoraljaújhely | HU |
| 28 | 21.88690000 | 47.96220000 | 142.1 | 63411 | Nyíregyháza Napkor | HU |
| 29 | 21.61080000 | 47.49030000 | 107.6 | 64704 | Debrecen | HU |
| 30 | 21.16060000 | 46.67940000 | 84.0 | 66519 | Békéscsaba | HU |
| 31 | 17.23300000 | 45.60000000 | 161.0 | daruv | Daruvar | CR |
| 32 | 18.63300000 | 45.53300000 | 89.0 | osije | Osijek | CR |
| 33 | 18.00000000 | 45.16600000 | 88.0 | slavo | Slavonski Brod | CR |
| 34 | 19.76410000 | 46.09720000 | 102.0 | palic | Palic | RS |
| 35 | 19.14310000 | 45.76700000 | 87.0 | sombo | Sombor | RS |
| 36 | 20.46460000 | 45.84260000 | 80.0 | kikin | Kikinda | RS |
| 37 | 21.35362152 | 46.13351640 | | arad | Arad | RO |
| 38 | 21.89592406 | 47.03570901 | | orade | Oradea | RO |
| 39 | 22.09450716 | 47.34415862 | | sacui | Sacuieni | RO |
| 40 | 20.60156003 | 46.07128625 | | sanni | Sannicolau | RO |
| 41 | 22.88714903 | 47.72148469 | | satu | Satu Mare | RO |
| 42 | 22.60000000 | 48.20000000 | 113.0 | bereg | Bereg | UA |
| 43 | 23.30000000 | 48.20000000 | 164.0 | khust | Khust | UA |
| 44 | 22.30000000 | 48.60000000 | 115.0 | uzhgo | Uzhgorod | UA |
| 45 | 17.11060000 | 48.16860000 | 287.0 | brati | Bratislava-Koliba | SK |
| 46 | 18.19420000 | 47.87310000 | 115.0 | hurba | Hurbanovo | SK |
| 47 | 19.73600000 | 48.33900000 | 214.0 | lucen | Lucenec-Bolkovce | SK |
| 48 | 20.79750000 | 48.71810000 | 580.0 | stos | Stos | SK |
| 49 | 21.22250000 | 48.67220000 | 230.0 | kosic | Kosice-Letisko | SK |
| 50 | 21.72400000 | 48.66300000 | 105.0 | milho | Milhostov | SK |

Table 8.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| ZAJ | 20 | 257.21 | VRS | 8 | 95.04 | DTS | 24 | 88.10 |
| KRV | 17 | 84.18 | SOM | 4 | 81.29 | POZ | 16 | 79.66 |
| ZLA | 15 | 75.91 | TIM | 28 | 69.34 | KRG | 12 | 67.03 |
| BGD | 11 | 59.93 | ZRE | 6 | 58.55 | PAL | 3 | 57.34 |
| NEG | 14 | 55.61 | ORA | 25 | 51.43 | KIK | 7 | 50.06 |
| NSA | 5 | 48.96 | SEM | 27 | 44.52 | LOZ | 9 | 43.74 |
| CAL | 23 | 43.14 | BAN | 22 | 42.79 | VLJ | 10 | 39.19 |
| SNM | 26 | 36.93 | SPA | 13 | 30.30 | BAC | 21 | 29.82 |
| KRS | 18 | 29.50 | SZE | 1 | 27.92 | CUP | 19 | 23.57 |
| OSI | 2 | 20.56 | | | | | | |
| AVERAGE: | | 60.42 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| ZAJ | 20 | 423.69 | TIM | 28 | 252.28 | PAL | 3 | 245.81 |
| BAC | 21 | 234.47 | POZ | 16 | 177.62 | KRV | 17 | 176.74 |
| SZE | 1 | 163.54 | ZRE | 6 | 148.35 | SOM | 4 | 147.73 |
| KIK | 7 | 141.41 | NEG | 14 | 138.58 | CAL | 23 | 111.67 |
| OSI | 2 | 104.00 | KRS | 18 | 88.86 | BGD | 11 | 87.60 |
| NSA | 5 | 80.40 | KRG | 12 | 74.94 | VRS | 8 | 61.86 |
| CUP | 19 | 59.83 | SEM | 27 | 52.15 | ZLA | 15 | 49.94 |
| SNM | 26 | 40.76 | VLJ | 10 | 36.87 | BAN | 22 | 34.93 |
| LOZ | 9 | 32.85 | ORA | 25 | 27.43 | SPA | 13 | 22.38 |
| DTS | 24 | 8.47 | | | | | | |
| AVERAGE: | | 108.94 | | | | | | |

Table 8.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| SEM | 27 | 0.59 | POZ | 16 | 0.62 | SZE | 1 | 0.70 |
| BAC | 21 | 0.70 | KRS | 18 | 0.71 | ZLA | 15 | 0.72 |
| SNM | 26 | 0.73 | CUP | 19 | 0.73 | LOZ | 9 | 0.76 |
| PAL | 3 | 0.76 | OSI | 2 | 0.76 | CAL | 23 | 0.76 |
| TIM | 28 | 0.77 | ORA | 25 | 0.77 | VRS | 8 | 0.77 |
| ZAJ | 20 | 0.78 | VLJ | 10 | 0.79 | BGD | 11 | 0.79 |
| NEG | 14 | 0.80 | BAN | 22 | 0.80 | DTS | 24 | 0.81 |
| KRV | 17 | 0.81 | KRG | 12 | 0.82 | SPA | 13 | 0.82 |
| SOM | 4 | 0.84 | ZRE | 6 | 0.84 | NSA | 5 | 0.86 |
| KIK | 7 | 0.86 | | | | | | |
| AVERAGE: | | 0.77 | | | | | | |

Table 8.2c. Station parameters of the series system of Serbia and near border series from Croatia, Hungary, Romania

| index | lambda(x) | fi(y) | |
|-------|------------|------------|-----------------------|
| 1 | 20.0902778 | 46.2561111 | Szeged |
| 2 | 18.5614167 | 45.4998889 | Osijek |
| 3 | 19.7640230 | 46.0972180 | Palic |
| 4 | 19.1431350 | 45.7670000 | Sombor |
| 5 | 19.8300030 | 45.3222150 | Novi Sad |
| 6 | 20.3760080 | 45.3987240 | Zrenjanin |
| 7 | 20.4646400 | 45.8426340 | Kikinda |
| 8 | 21.3055240 | 45.1441370 | Vrsac |
| 9 | 19.2269330 | 44.5410990 | Loznica |
| 10 | 19.9124730 | 44.2754640 | Valjevo |
| 11 | 20.4648220 | 44.7984570 | Beograd |
| 12 | 20.9277710 | 44.0272220 | Kragujevac |
| 13 | 20.9421460 | 44.3696000 | Smederevska Palanka |
| 14 | 22.5363400 | 44.2391570 | Negotin |
| 15 | 19.7130230 | 43.7378070 | Zlatibor |
| 16 | 20.0295210 | 43.8430700 | Pozega |
| 17 | 20.6998360 | 43.7088840 | Kraljevo |
| 18 | 21.3399540 | 43.5640540 | Krusevac |
| 19 | 21.3806360 | 43.9406160 | Cuprija |
| 20 | 22.2885650 | 43.8831280 | Zajecar |
| 21 | 23.1130719 | 44.4761811 | Bacles |
| 22 | 21.1363986 | 45.3827011 | Banloc |
| 23 | 22.9460524 | 43.9848998 | Calafat |
| 24 | 22.6260737 | 44.6264587 | Drobeta Turnu Severin |
| 25 | 21.7104827 | 45.0387115 | Oravita |
| 26 | 20.6015600 | 46.0712863 | Sannicolau Mare |
| 27 | 22.0558046 | 45.1813947 | Semenic |
| 28 | 21.2580711 | 45.7710564 | Timisoara |

Table 8.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 457600 | 30 | 235.91 | 539357 | 51 | 169.43 | 611355 | 66 | 162.96 |
| 401321 | 6 | 149.87 | 441757 | 20 | 138.66 | 13183 | 107 | 125.57 |
| 33658 | 110 | 123.56 | 525215 | 44 | 118.87 | 740330 | 96 | 118.38 |
| 515231 | 40 | 105.43 | 655650 | 83 | 100.54 | 507158 | 35 | 98.76 |
| 439534 | 19 | 94.98 | 408800 | 9 | 92.33 | 553254 | 58 | 90.14 |
| 454936 | 28 | 89.69 | 530535 | 48 | 89.15 | 608121 | 64 | 88.34 |
| 617637 | 69 | 87.83 | 359521 | 5 | 87.51 | 711305 | 90 | 87.15 |
| 604037 | 62 | 87.09 | 428632 | 15 | 82.19 | 444820 | 23 | 81.25 |
| 352557 | 3 | 80.60 | 655522 | 82 | 76.39 | 517507 | 41 | 75.82 |
| 748253 | 98 | 74.57 | 635347 | 75 | 71.74 | 436447 | 17 | 69.77 |
| 751555 | 99 | 69.43 | 542532 | 52 | 68.69 | 614740 | 68 | 68.21 |
| 530801 | 49 | 66.76 | 412721 | 10 | 65.19 | 656621 | 85 | 65.05 |
| 722657 | 94 | 64.53 | 557334 | 59 | 64.35 | 13295 | 106 | 63.29 |
| 632130 | 71 | 62.44 | 33638 | 111 | 62.09 | 538416 | 50 | 61.30 |
| 523703 | 43 | 60.39 | 509649 | 37 | 60.23 | 551459 | 55 | 59.19 |
| 639744 | 77 | 58.76 | 741640 | 97 | 58.62 | 647334 | 80 | 58.41 |
| 443639 | 21 | 53.91 | 546115 | 53 | 53.70 | 438238 | 18 | 53.66 |
| 551716 | 57 | 53.53 | 635658 | 76 | 52.41 | 511912 | 39 | 50.77 |
| 430608 | 16 | 49.98 | 605537 | 63 | 49.13 | 528518 | 47 | 48.55 |
| 551621 | 56 | 48.22 | 656555 | 84 | 45.44 | 509441 | 36 | 45.21 |
| 502141 | 32 | 45.19 | 347357 | 2 | 43.53 | 523108 | 42 | 42.79 |
| 758355 | 100 | 42.70 | 428307 | 14 | 42.10 | 359257 | 4 | 41.62 |
| 444417 | 22 | 38.52 | 708430 | 87 | 37.03 | 445718 | 24 | 37.03 |
| 710736 | 89 | 35.83 | 456526 | 29 | 34.99 | 527527 | 46 | 34.14 |
| 739615 | 95 | 34.13 | 719507 | 92 | 33.52 | 548409 | 54 | 33.14 |
| 406421 | 7 | 32.54 | 614436 | 67 | 32.41 | 414352 | 11 | 32.16 |
| 722205 | 93 | 31.98 | 634322 | 74 | 31.89 | 709352 | 88 | 30.89 |
| 417530 | 13 | 30.53 | 415816 | 12 | 30.40 | 632229 | 72 | 30.25 |
| 33634 | 109 | 30.23 | 602213 | 61 | 30.07 | 650727 | 81 | 29.71 |
| 714623 | 91 | 29.57 | 600608 | 60 | 28.81 | 511349 | 38 | 28.71 |
| 13173 | 108 | 28.55 | 13174 | 105 | 27.59 | 66519 | 101 | 26.60 |
| 407500 | 8 | 25.53 | 63411 | 103 | 24.70 | 622544 | 70 | 21.24 |
| 506422 | 34 | 21.24 | 452452 | 26 | 20.80 | 642540 | 78 | 20.12 |
| 453344 | 27 | 19.22 | 500432 | 31 | 19.06 | 632432 | 73 | 19.04 |
| 502317 | 33 | 17.97 | 58113 | 104 | 17.95 | 703156 | 86 | 16.67 |
| 33548 | 112 | 15.47 | 446853 | 25 | 15.19 | 610244 | 65 | 12.04 |
| 646247 | 79 | 11.77 | 525323 | 45 | 11.73 | 64704 | 102 | 11.29 |
| 346452 | 1 | 7.38 | | | | | | |
| AVERAGE: | | 56.64 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|---------|--------|-------|---------|--------|-------|---------|
| 441757 | 20 | 3807.34 | 509441 | 36 | 2370.05 | 611355 | 66 | 1869.92 |
| 748253 | 98 | 1535.49 | 523703 | 43 | 1508.17 | 401321 | 6 | 1372.15 |
| 457600 | 30 | 1321.41 | 33638 | 112 | 903.13 | 655650 | 83 | 562.95 |
| 751555 | 99 | 481.62 | 530801 | 49 | 418.35 | 711305 | 90 | 408.21 |
| 428307 | 14 | 389.93 | 546115 | 53 | 372.58 | 608121 | 64 | 353.37 |
| 509649 | 37 | 323.37 | 359521 | 5 | 323.19 | 517507 | 41 | 316.71 |
| 740330 | 96 | 298.43 | 639744 | 77 | 284.20 | 553254 | 58 | 272.68 |
| 439534 | 19 | 252.16 | 507158 | 35 | 229.59 | 632130 | 71 | 213.39 |
| 530535 | 48 | 201.49 | 647334 | 80 | 196.17 | 515231 | 40 | 189.56 |

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|-----------------------------|-----|--------|---------------------------|-----|--------|-------------------------|-----|--------------------|--|
| 352557 | 3 | 176.07 | 605537 | 63 | 175.83 | 635658 | 76 | 172.32 | |
| 436447 | 17 | 168.62 | 655522 | 82 | 166.70 | 539357 | 51 | 165.03 | |
| 58113 | 103 | 153.05 | 741640 | 97 | 150.58 | 650727 | 81 | 146.04 | |
| 542532 | 52 | 144.43 | 33658 | 111 | 141.53 | 414352 | 11 | 139.59 | |
| 635347 | 75 | 134.52 | 66519 | 101 | 134.39 | 614740 | 68 | 131.07 | |
| 656621 | 85 | 130.11 | 13183 | 108 | 129.69 | 604037 | 62 | 129.15 | |
| 417530 | 13 | 127.73 | 406421 | 7 | 124.79 | 551716 | 57 | 124.38 | |
| 523108 | 42 | 121.80 | 710736 | 89 | 119.02 | 617637 | 69 | 118.89 | |
| 359257 | 4 | 112.53 | 456526 | 29 | 107.58 | 614436 | 67 | 98.20 | |
| 33634 | 110 | 97.79 | 445718 | 24 | 97.30 | 64704 | 102 | 93.70 | |
| 444820 | 23 | 93.63 | 758355 | 100 | 93.07 | 453344 | 27 | 92.56 | |
| 443639 | 21 | 89.43 | 511912 | 39 | 87.97 | 722657 | 94 | 84.74 | |
| 428632 | 15 | 81.72 | 347357 | 2 | 74.84 | 13173 | 109 | 74.08 | |
| 511349 | 38 | 73.04 | 739615 | 95 | 72.16 | 506422 | 34 | 70.96 | |
| 551459 | 55 | 70.78 | 708430 | 87 | 70.58 | 502317 | 33 | 70.04 | |
| 525323 | 45 | 69.99 | 452452 | 26 | 67.23 | 444417 | 22 | 65.61 | |
| 430608 | 16 | 63.18 | 407500 | 8 | 63.14 | 408800 | 9 | 62.93 | |
| 538416 | 50 | 60.53 | 528518 | 47 | 58.53 | 557334 | 59 | 58.36 | |
| 415816 | 12 | 57.98 | 454936 | 28 | 57.92 | 703156 | 86 | 56.43 | |
| 551621 | 56 | 53.93 | 719507 | 92 | 51.41 | 502141 | 32 | 46.70 | |
| 13295 | 106 | 44.62 | 438238 | 18 | 44.55 | 412721 | 10 | 42.69 | |
| 656555 | 84 | 41.10 | 63411 | 104 | 40.88 | 548409 | 54 | 39.35 | |
| 709352 | 88 | 37.96 | 13285 | 107 | 37.70 | 714623 | 91 | 34.65 | |
| 13174 | 105 | 34.65 | 632229 | 72 | 33.81 | 642540 | 78 | 33.48 | |
| 527527 | 46 | 32.27 | 600608 | 60 | 31.74 | 500432 | 31 | 31.00 | |
| 722205 | 93 | 30.03 | 525215 | 44 | 29.78 | 634322 | 74 | 25.96 | |
| 602213 | 61 | 25.30 | 622544 | 70 | 21.93 | 632432 | 73 | 19.20 | |
| 446853 | 25 | 15.78 | 346452 | 1 | 14.68 | 646247 | 79 | 13.62 | |
| 610244 | 65 | 11.29 | | | | | | | |
| AVERAGE: | | 247.05 | | | | | | | |

Table 8.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 527527 | 46 | 0.39 | 525323 | 45 | 0.39 | 656555 | 84 | 0.50 |
| 634322 | 74 | 0.55 | 33548 | 112 | 0.56 | 646247 | 79 | 0.58 |
| 551621 | 56 | 0.59 | 515231 | 40 | 0.60 | 539357 | 51 | 0.63 |
| 63411 | 103 | 0.64 | 632130 | 71 | 0.65 | 523703 | 43 | 0.65 |
| 58113 | 104 | 0.66 | 530535 | 48 | 0.67 | 456526 | 29 | 0.68 |
| 511349 | 38 | 0.68 | 352557 | 3 | 0.68 | 748253 | 98 | 0.70 |
| 605537 | 63 | 0.70 | 414352 | 11 | 0.70 | 751555 | 99 | 0.71 |
| 346452 | 1 | 0.71 | 739615 | 95 | 0.71 | 709352 | 88 | 0.71 |
| 710736 | 89 | 0.72 | 622544 | 70 | 0.72 | 647334 | 80 | 0.72 |
| 33634 | 109 | 0.72 | 509649 | 37 | 0.72 | 511912 | 39 | 0.72 |
| 722657 | 94 | 0.73 | 740330 | 96 | 0.73 | 602213 | 61 | 0.73 |
| 347357 | 2 | 0.73 | 642540 | 78 | 0.73 | 611355 | 66 | 0.73 |
| 507158 | 35 | 0.73 | 452452 | 26 | 0.74 | 719507 | 92 | 0.74 |
| 509441 | 36 | 0.74 | 412721 | 10 | 0.75 | 417530 | 13 | 0.75 |
| 655522 | 82 | 0.75 | 439534 | 19 | 0.75 | 428307 | 14 | 0.75 |
| 538416 | 50 | 0.75 | 604037 | 62 | 0.75 | 530801 | 49 | 0.75 |
| 33658 | 110 | 0.75 | 528518 | 47 | 0.76 | 33638 | 111 | 0.76 |
| 548409 | 54 | 0.76 | 502317 | 33 | 0.76 | 64704 | 102 | 0.76 |
| 600608 | 60 | 0.76 | 407500 | 8 | 0.76 | 453344 | 27 | 0.76 |
| 553254 | 58 | 0.76 | 758355 | 100 | 0.76 | 502141 | 32 | 0.76 |
| 430608 | 16 | 0.76 | 66519 | 101 | 0.77 | 13183 | 107 | 0.77 |
| 444820 | 23 | 0.77 | 614436 | 67 | 0.77 | 408800 | 9 | 0.77 |
| 359521 | 5 | 0.77 | 525215 | 44 | 0.77 | 457600 | 30 | 0.78 |
| 542532 | 52 | 0.78 | 454936 | 28 | 0.78 | 557334 | 59 | 0.78 |

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|-----------------------------|-----|---------------------------|--------|-------------------------|------|--------------------|-----|------|
| 614740 | 68 | 0.78 | 517507 | 41 | 0.78 | 610244 | 65 | 0.78 |
| 445718 | 24 | 0.78 | 428632 | 15 | 0.79 | 13173 | 108 | 0.79 |
| 436447 | 17 | 0.79 | 635347 | 75 | 0.79 | 546115 | 53 | 0.79 |
| 632432 | 73 | 0.79 | 617637 | 69 | 0.79 | 551459 | 55 | 0.79 |
| 446853 | 25 | 0.79 | 711305 | 90 | 0.79 | 632229 | 72 | 0.80 |
| 444417 | 22 | 0.80 | 635658 | 76 | 0.80 | 443639 | 21 | 0.80 |
| 639744 | 77 | 0.80 | 13295 | 106 | 0.80 | 703156 | 86 | 0.80 |
| 741640 | 97 | 0.80 | 506422 | 34 | 0.80 | 523108 | 42 | 0.80 |
| 714623 | 91 | 0.80 | 551716 | 57 | 0.80 | 656621 | 85 | 0.80 |
| 401321 | 6 | 0.80 | 608121 | 64 | 0.80 | 722205 | 93 | 0.80 |
| 406421 | 7 | 0.81 | 650727 | 81 | 0.81 | 415816 | 12 | 0.81 |
| 655650 | 83 | 0.81 | 438238 | 18 | 0.81 | 359257 | 4 | 0.82 |
| 708430 | 87 | 0.83 | 500432 | 31 | 0.83 | 441757 | 20 | 0.83 |
| 13174 | 105 | 0.85 | | | | | | |
| AVERAGE: | | 0.74 | | | | | | |

Table 8.3c. Station parameters of the series system of Romania and near border series from Serbia, Hungary, Ukraine

| index | lambda | phi | ST_ID | ST_NAME | Country |
|-------|-----------|-----|-----------|-------------|------------------|
| 1 | 24.879770 | | 43.760420 | 346452 31 | TURNU MAGUR RO |
| 2 | 23.945686 | | 43.790056 | 347357 37 | BECHET RO |
| 3 | 25.934221 | | 43.875470 | 352557 23 | GIURGIU RO |
| 4 | 22.947569 | | 43.985246 | 359257 62 | CALAFAT RO |
| 5 | 25.354370 | | 43.978290 | 359521 74 | ALEXANDRIA RO |
| 6 | 23.332620 | | 44.029510 | 401321 58 | BAILESTI RO |
| 7 | 24.358813 | | 44.100444 | 406421 107 | CARACAL RO |
| 8 | 24.980030 | | 44.107740 | 407500 105 | ROSIORII DE RO |
| 9 | 27.967130 | | 44.088620 | 408800 159 | ADAMCLISI RO |
| 10 | 27.339860 | | 44.206430 | 412721 19 | CALARASI RO |
| 11 | 23.868460 | | 44.310600 | 414352 194 | CRAIOVA RO |
| 12 | 28.252880 | | 44.243560 | 415816 66 | MEDGIDIA RO |
| 13 | 25.538540 | | 44.283260 | 417530 106 | VIDELE RO |
| 14 | 23.114580 | | 44.476720 | 428307 316 | BICLES RO |
| 15 | 26.525051 | | 44.453228 | 428632 65 | FUNDULEA RO |
| 16 | 26.079760 | | 44.510820 | 430608 92 | BUCURESTI B RO |
| 17 | 24.791530 | | 44.562880 | 436447 210 | STOLNICI RO |
| 18 | 22.627650 | | 44.626730 | 438238 73 | DR. TR. SEVER RO |
| 19 | 25.580740 | | 44.653200 | 439534 155 | TITU RO |
| 20 | 27.965080 | | 44.692000 | 441757 33 | HIRSOVA RO |
| 21 | 26.658560 | | 44.721950 | 443639 57 | URZICENI RO |
| 22 | 24.238708 | | 44.665755 | 444417 274 | DRAGASANI RO |
| 23 | 28.343580 | | 44.734700 | 444820 221 | CORUGEA RO |
| 24 | 27.295990 | | 44.740960 | 445718 43 | GRIVITA RO |
| 25 | 28.877930 | | 44.766410 | 446853 37 | JURILOVCA RO |
| 26 | 24.867460 | | 44.849290 | 452452 322 | PITESTI RO |
| 27 | 23.710236 | | 44.878418 | 453344 267 | TG. LOGRESTI RO |
| 28 | 29.600520 | | 44.896870 | 454936 1 | SF. GH. DEL RO |
| 29 | 25.427260 | | 44.929910 | 456526 297 | TIRGOVISTE RO |
| 30 | 25.988990 | | 44.956090 | 457600 181 | PLOIESTI RO |
| 31 | 24.571790 | | 45.016290 | 500432 552 | DEDULESTI RO |
| 32 | 21.711840 | | 45.038960 | 502141 303 | ORAVITA RO |
| 33 | 23.260882 | | 45.040958 | 502317 203 | TG. JIU RO |
| 34 | 24.380980 | | 45.089190 | 506422 229 | RM. VILCEA RO |
| 35 | 22.057120 | | 45.181730 | 507158 1432 | SEMENIC RO |
| 36 | 24.671280 | | 45.179170 | 509441 455 | CURTEA DE A RO |
| 37 | 26.853000 | | 45.132910 | 509649 90 | BUZAU RO |
| 38 | 23.810150 | | 45.165870 | 511349 531 | POLOVRAGI RO |
| 39 | 29.158274 | | 45.177107 | 511912 1 | GORGOVA RO |
| 40 | 22.534340 | | 45.281170 | 515231 2184 | TARCU RO |
| 41 | 25.038140 | | 45.275150 | 517507 684 | CIMPULUNG RO |
| 42 | 21.137974 | | 45.383051 | 523108 80 | BANLOC RO |
| 43 | 27.040160 | | 45.390750 | 523703 145 | RM. SARAT RO |
| 44 | 22.226840 | | 45.417560 | 525215 210 | CARANSEBES RO |
| 45 | 23.378254 | | 45.406610 | 525323 610 | PETROSANI RO |
| 46 | 25.458260 | | 45.446140 | 527527 2514 | VF. OMU RO |
| 47 | 25.273270 | | 45.431910 | 528518 1372 | FUNDATA RO |
| 48 | 25.585100 | | 45.506460 | 530535 1101 | PREDEAL RO |

| | | | | | | |
|-----|-----------|-----------|--------|------|-------------|----|
| 49 | 28.033930 | 45.473300 | 530801 | 68 | GALATI | RO |
| 50 | 24.273180 | 45.653180 | 538416 | 506 | BOITA | RO |
| 51 | 23.934000 | 45.657510 | 539357 | 1466 | PALTINIS | RO |
| 52 | 25.527720 | 45.696130 | 542532 | 537 | BRASOV | RO |
| 53 | 21.259360 | 45.771460 | 546115 | 87 | TIMISOARA | RO |
| 54 | 24.092940 | 45.789700 | 548409 | 446 | SIBIU | RO |
| 55 | 24.936720 | 45.836360 | 551459 | 428 | FAGARAS | RO |
| 56 | 26.377080 | 45.824010 | 551621 | 822 | LACAUTI | RO |
| 57 | 27.410360 | 45.841950 | 551716 | 822 | TECUCI | RO |
| 58 | 22.900460 | 45.865040 | 553254 | 822 | DEVA | RO |
| 59 | 23.543090 | 45.964530 | 557334 | 822 | SEBES-ALBA | RO |
| 60 | 26.116870 | 45.993240 | 600608 | 822 | TG.SECUIESC | RO |
| 61 | 22.152420 | 46.019490 | 602213 | 822 | VARADIA DE | RO |
| 62 | 20.603163 | 46.071633 | 604037 | 822 | SINNICOLU M | RO |
| 63 | 25.597400 | 46.081040 | 605537 | 822 | BARAOLT | RO |
| 64 | 21.355219 | 46.133851 | 608121 | 822 | ARAD | RO |
| 65 | 22.727700 | 46.169760 | 610244 | 822 | TEBEA | RO |
| 66 | 23.936770 | 46.178820 | 611355 | 822 | BLAJ | RO |
| 67 | 24.593180 | 46.228250 | 614436 | 822 | DUMBRAVENI | RO |
| 68 | 27.645580 | 46.231360 | 614740 | 822 | BIRLAD | RO |
| 69 | 26.642590 | 46.272960 | 617637 | 822 | TG. OCNA | RO |
| 70 | 25.774170 | 46.371580 | 622544 | 822 | MIERCUREA C | RO |
| 71 | 21.543000 | 46.518940 | 632130 | 822 | CHISINEU CR | RO |
| 72 | 22.468092 | 46.528317 | 632229 | 282 | STEI | RO |
| 73 | 24.535330 | 46.533680 | 632432 | 306 | TG.MURES | RO |
| 74 | 23.311820 | 46.535770 | 634322 | 1355 | BAISOARA | RO |
| 75 | 23.792840 | 46.583390 | 635347 | 424 | TURDA | RO |
| 76 | 26.914070 | 46.532150 | 635658 | 184 | BACAU | RO |
| 77 | 27.715830 | 46.646240 | 639744 | 117 | VASLUI | RO |
| 78 | 25.514170 | 46.706080 | 642540 | 752 | JOSENI | RO |
| 79 | 22.795790 | 46.759560 | 646247 | 1843 | VLADEASA 18 | RO |
| 80 | 23.572990 | 46.777990 | 647334 | 407 | CLUJ-NAPOCA | RO |
| 81 | 27.443695 | 46.838328 | 650727 | 132 | NEGRESTI(VA | RO |
| 82 | 25.361530 | 46.926640 | 655522 | 675 | TOPLITA | RO |
| 83 | 26.913390 | 46.969460 | 655650 | 220 | ROMAN | RO |
| 84 | 25.951510 | 46.977760 | 656555 | 1873 | CEAHLAU TOA | RO |
| 85 | 26.390900 | 46.934020 | 656621 | 360 | PIATRA NEAM | RO |
| 86 | 21.897545 | 47.036020 | 703156 | 134 | ORADEA | RO |
| 87 | 24.515450 | 47.149420 | 708430 | 370 | BISTRITA | RO |
| 88 | 23.900500 | 47.128260 | 709352 | 236 | DEJ | RO |
| 89 | 27.630080 | 47.171060 | 710736 | 100 | IASI | RO |
| 90 | 23.048360 | 47.195280 | 711305 | 294 | ZALAU | RO |
| 91 | 26.380590 | 47.212430 | 714623 | 822 | TG. NEAMT | RO |
| 92 | 25.136044 | 47.324920 | 719507 | 822 | POIANA STAM | RO |
| 93 | 22.095800 | 47.344470 | 722205 | 822 | SACUIENI | RO |
| 94 | 26.927410 | 47.358670 | 722657 | 822 | COTNARI | RO |
| 95 | 26.241960 | 47.633280 | 739615 | 822 | SUCEAVA | RO |
| 96 | 23.493240 | 47.661210 | 740330 | 822 | BAIA-MARE | RO |
| 97 | 26.647040 | 47.736050 | 741640 | 822 | BOTOSANI | RO |
| 98 | 22.888782 | 47.721768 | 748253 | 822 | SATU MARE | RO |
| 99 | 25.891850 | 47.838010 | 751555 | 822 | RADAUTI | RO |
| 100 | 23.905880 | 47.939570 | 758355 | 822 | SIGHETUL MA | RO |
| 101 | 21.160556 | 46.679444 | 66519 | 822 | Bekescsaba | HU |
| 102 | 21.610833 | 47.490278 | 64704 | 822 | Debrecen R | HU |
| 103 | 20.090300 | 46.256100 | 58113 | 822 | Szeged | HU |
| 104 | 21.886900 | 47.962200 | 63411 | 822 | Nyiregyhaza | HU |
| 105 | 20.464640 | 45.842634 | 13174 | | KIKINDA | SR |
| 106 | 22.536340 | 44.239157 | 13295 | | NEGOTIN | SR |
| 107 | 21.498430 | 44.752614 | 13285 | | VELIKO GRAD | SR |
| 108 | 21.305524 | 45.144137 | 13183 | | VRSAK-kontr | SR |
| 109 | 20.376008 | 45.398724 | 13173 | | ZRENJANIN | SR |
| 110 | 22.650000 | 48.200000 | 33634 | | Beregove | UA |
| 111 | 25.972500 | 48.266389 | 33658 | | Chernivtsi | UA |
| 112 | 23.300000 | 48.183330 | 33638 | | Khust | UA |

Table 8.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 24 | 24 | 87.33 | 21 | 21 | 84.48 | 13 | 13 | 79.06 |
| 20 | 20 | 61.40 | 3 | 3 | 53.30 | 9 | 9 | 46.78 |
| 23 | 23 | 45.89 | 22 | 22 | 45.89 | 16 | 16 | 45.31 |
| 17 | 17 | 45.05 | 1 | 1 | 40.66 | 19 | 19 | 39.83 |
| 6 | 6 | 32.70 | 2 | 2 | 32.06 | 18 | 18 | 31.55 |
| 11 | 11 | 29.53 | 14 | 14 | 27.80 | 10 | 10 | 27.36 |
| 5 | 5 | 26.32 | 12 | 12 | 25.43 | 8 | 8 | 23.94 |
| 15 | 15 | 17.17 | 7 | 7 | 15.98 | 4 | 4 | 13.82 |
| AVERAGE: | | 40.78 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 3 | 3 | 1343.92 | 22 | 22 | 635.27 | 17 | 17 | 366.70 |
| 21 | 21 | 351.20 | 13 | 13 | 319.08 | 9 | 9 | 299.36 |
| 11 | 11 | 284.17 | 24 | 24 | 276.42 | 6 | 6 | 274.41 |
| 2 | 2 | 263.29 | 16 | 16 | 220.54 | 1 | 1 | 152.41 |
| 5 | 5 | 108.27 | 18 | 18 | 78.78 | 19 | 19 | 72.18 |
| 20 | 20 | 66.53 | 14 | 14 | 60.36 | 10 | 10 | 56.56 |
| 4 | 4 | 55.75 | 15 | 15 | 53.35 | 23 | 23 | 52.17 |
| 12 | 12 | 28.43 | 8 | 8 | 21.23 | 7 | 7 | 17.45 |
| AVERAGE: | | 227.41 | | | | | | |

Table 8.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 1 | 1 | 0.52 | 21 | 21 | 0.56 | 12 | 12 | 0.65 |
| 4 | 4 | 0.65 | 14 | 14 | 0.66 | 13 | 13 | 0.68 |
| 8 | 8 | 0.70 | 17 | 17 | 0.71 | 22 | 22 | 0.71 |
| 18 | 18 | 0.72 | 3 | 3 | 0.73 | 9 | 9 | 0.73 |
| 5 | 5 | 0.73 | 16 | 16 | 0.74 | 6 | 6 | 0.74 |
| 19 | 19 | 0.74 | 2 | 2 | 0.74 | 24 | 24 | 0.76 |
| 10 | 10 | 0.76 | 11 | 11 | 0.77 | 15 | 15 | 0.78 |
| 7 | 7 | 0.80 | 20 | 20 | 0.84 | 23 | 23 | 0.87 |
| AVERAGE: | | 0.72 | | | | | | |

Table 8.4c. Station parameters of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 27.04027778 | 50.16194445 | 277.0 |
| 2 | 23.38333335 | 49.95000005 | 245.0 |
| 3 | 24.95000005 | 49.43333336 | 303.0 |
| 4 | 24.00000000 | 48.96666672 | 470.0 |
| 5 | 27.26666668 | 48.85000004 | 292.0 |
| 6 | 26.60861114 | 48.69333337 | 217.0 |
| 7 | 22.26666668 | 48.63333337 | 113.0 |
| 8 | 23.50444447 | 48.52666669 | 456.0 |
| 9 | 25.97250005 | 48.26638890 | 242.0 |
| 10 | 22.65000003 | 48.20000001 | 113.0 |
| 11 | 23.30000002 | 48.18333334 | 164.0 |
| 12 | 24.53333336 | 48.15000001 | 1451.0 |
| 13 | 22.05000000 | 50.10000001 | 212.0 |
| 14 | 22.33333335 | 49.46666669 | 420.0 |
| 15 | 22.00583333 | 48.93888894 | 176.0 |
| 16 | 21.73472226 | 48.66805559 | 104.0 |
| 17 | 21.65888892 | 48.38055558 | 100.0 |
| 18 | 21.88694449 | 47.96222227 | 142.0 |
| 19 | 21.61083336 | 47.49027780 | 107.6 |
| 20 | 23.90416671 | 47.93916672 | 276.0 |
| 21 | 25.89027782 | 47.83777782 | 100.0 |
| 22 | 22.88722227 | 47.72138893 | 124.0 |
| 23 | 23.94055560 | 47.77694448 | 100.0 |
| 24 | 23.49138891 | 47.66083337 | 100.0 |

Table 8.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB | |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|--|
| 61709 | 19 | 258.00 | 53101 | 18 | 176.90 | 23703 | 15 | 80.13 | |
| 11910 | 5 | 54.76 | 11774 | 24 | 47.07 | 23201 | 14 | 37.86 | |
| 33631 | 13 | 36.26 | 11978 | 10 | 34.41 | 11819 | 2 | 33.05 | |
| 11813 | 1 | 28.19 | 690 | 23 | 24.62 | 650 | 21 | 24.58 | |
| 44121 | 16 | 24.25 | 11858 | 3 | 23.55 | 11993 | 11 | 23.07 | |
| 11787 | 26 | 22.33 | 11931 | 7 | 21.67 | 11782 | 27 | 20.68 | |
| 11903 | 4 | 19.38 | 33634 | 12 | 16.10 | 11938 | 8 | 15.40 | |
| 51705 | 17 | 14.32 | 11927 | 6 | 14.00 | 11968 | 9 | 13.55 | |
| 11766 | 25 | 12.13 | 625 | 20 | 11.58 | 660 | 22 | 7.24 | |
| AVERAGE: | | 40.56 | | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB | |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|--|
| 61709 | 19 | 798.36 | 53101 | 18 | 782.50 | 11910 | 5 | 381.84 | |
| 11978 | 10 | 225.17 | 23201 | 14 | 175.48 | 23703 | 15 | 148.41 | |
| 11938 | 8 | 119.71 | 51705 | 17 | 107.33 | 11968 | 9 | 102.71 | |
| 11819 | 2 | 86.11 | 11931 | 7 | 79.79 | 11993 | 11 | 63.06 | |
| 33634 | 12 | 62.89 | 11813 | 1 | 62.72 | 44121 | 16 | 61.12 | |
| 690 | 23 | 60.07 | 11774 | 24 | 58.02 | 660 | 22 | 51.45 | |
| 11927 | 6 | 47.03 | 11782 | 27 | 37.75 | 11903 | 4 | 33.92 | |
| 11858 | 3 | 33.58 | 650 | 21 | 32.27 | 33631 | 13 | 30.57 | |
| 625 | 20 | 27.28 | 11787 | 26 | 25.44 | 11766 | 25 | 23.45 | |
| AVERAGE: | | 137.70 | | | | | | | |

Table 8.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS | |
|----------|-------|------|--------|-------|------|--------|-------|------|--|
| 44121 | 16 | 0.54 | 11787 | 26 | 0.54 | 61709 | 19 | 0.58 | |
| 625 | 20 | 0.60 | 690 | 23 | 0.62 | 11782 | 27 | 0.62 | |
| 650 | 21 | 0.67 | 53101 | 18 | 0.67 | 11766 | 25 | 0.68 | |
| 11931 | 7 | 0.68 | 660 | 22 | 0.71 | 11858 | 3 | 0.71 | |
| 11774 | 24 | 0.71 | 11910 | 5 | 0.72 | 11938 | 8 | 0.73 | |
| 11978 | 10 | 0.73 | 33634 | 12 | 0.74 | 11813 | 1 | 0.74 | |
| 51705 | 17 | 0.74 | 11993 | 11 | 0.75 | 23703 | 15 | 0.76 | |
| 11927 | 6 | 0.76 | 23201 | 14 | 0.77 | 11968 | 9 | 0.77 | |
| 11903 | 4 | 0.78 | 33631 | 13 | 0.80 | 11819 | 2 | 0.82 | |
| AVERAGE: | | 0.70 | | | | | | | |

Table 8.5c. Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| index | lambda | fi | h | station |
|-------|-------------|-------------|--------|---------|
| 1 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 2 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 3 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 4 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 5 | 19.64666670 | 48.64444448 | 1015.0 | 11910 |
| 6 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 7 | 20.23583335 | 49.18944445 | 1778.0 | 11931 |
| 8 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 9 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 10 | 21.73472226 | 48.66805559 | 104.0 | 11978 |
| 11 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 12 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 13 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 14 | 19.02805556 | 47.06111111 | 153.0 | 44121 |
| 15 | 17.67472226 | 47.71000004 | 117.0 | 23703 |
| 16 | 20.53611114 | 48.49527780 | 309.0 | 51705 |
| 17 | 20.01666667 | 47.86666671 | 111.3 | 53101 |
| 18 | 17.26722224 | 47.88972227 | 121.0 | 23201 |
| 19 | 21.65888892 | 48.38083335 | 100.0 | 61709 |
| 20 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 21 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 22 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 23 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 24 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 25 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 26 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 27 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 8.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 5 | 5 | 65.33 | 9 | 9 | 60.68 | 2 | 2 | 50.53 |
| 4 | 4 | 50.12 | 1 | 1 | 44.50 | 11 | 11 | 40.51 |
| 14 | 14 | 37.12 | 16 | 16 | 34.15 | 7 | 7 | 30.60 |
| 8 | 8 | 29.54 | 3 | 3 | 28.69 | 6 | 6 | 20.13 |
| 13 | 13 | 15.85 | 12 | 12 | 13.65 | 10 | 10 | 13.10 |
| 15 | 15 | 12.51 | 17 | 17 | 8.20 | | | |
| AVERAGE: | | 32.66 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 4 | 4 | 385.29 | 1 | 1 | 196.25 | 5 | 5 | 192.11 |
| 11 | 11 | 153.47 | 9 | 9 | 102.01 | 2 | 2 | 88.48 |
| 6 | 6 | 56.53 | 16 | 16 | 53.52 | 13 | 13 | 37.33 |
| 14 | 14 | 34.53 | 3 | 3 | 30.34 | 15 | 15 | 25.98 |
| 8 | 8 | 25.85 | 12 | 12 | 17.87 | 10 | 10 | 17.71 |
| 7 | 7 | 17.29 | 17 | 17 | 8.24 | | | |
| AVERAGE: | | 84.87 | | | | | | |

Table 8.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 17 | 17 | 0.46 | 2 | 2 | 0.56 | 13 | 13 | 0.58 |
| 6 | 6 | 0.60 | 15 | 15 | 0.64 | 1 | 1 | 0.64 |
| 12 | 12 | 0.67 | 14 | 14 | 0.67 | 16 | 16 | 0.67 |
| 9 | 9 | 0.69 | 4 | 4 | 0.69 | 11 | 11 | 0.69 |
| 10 | 10 | 0.69 | 5 | 5 | 0.70 | 7 | 7 | 0.71 |
| 3 | 3 | 0.73 | 8 | 8 | 0.76 | | | |
| AVERAGE: | | 0.65 | | | | | | |

Table 8.6c. Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda | fi | h |
|-------|-------------|-------------|--------|
| 1 | 18.19166668 | 50.06166667 | 206.0 |
| 2 | 19.80194449 | 50.07194445 | 237.0 |
| 3 | 20.98444450 | 50.01888889 | 209.0 |
| 4 | 22.02916667 | 50.11527778 | 212.0 |
| 5 | 19.00111111 | 49.80805560 | 398.0 |
| 6 | 19.96027783 | 49.29388890 | 855.0 |
| 7 | 19.98194450 | 49.23250001 | 1991.0 |
| 8 | 20.68916670 | 49.62722225 | 292.0 |
| 9 | 22.34166668 | 49.46638891 | 420.0 |
| 10 | 23.38333335 | 49.95000005 | 245.0 |
| 11 | 17.57000003 | 49.32000002 | 222.0 |
| 12 | 17.54000003 | 49.78000004 | 749.0 |
| 13 | 18.45000002 | 49.55000003 | 1322.0 |
| 14 | 18.12000001 | 49.70000004 | 250.0 |
| 15 | 22.00611111 | 48.93888894 | 176.0 |
| 16 | 20.23583335 | 49.18944445 | 1778.0 |
| 17 | 20.18916668 | 48.84861115 | 901.0 |

Table 8.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

| 1. Test Statistics After Homogenization | | | | | | | | | |
|---|-------|-------|--------|-------|-------|--------|-------|-------|--|
| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA | |
| 8 | 8 | 88.83 | 4 | 4 | 57.87 | 9 | 9 | 55.93 | |
| 1 | 1 | 32.06 | 7 | 7 | 16.92 | 3 | 3 | 14.81 | |
| 2 | 2 | 14.76 | 5 | 5 | 13.18 | 6 | 6 | 12.25 | |
| AVERAGE: | | 34.07 | | | | | | | |

| 2. Test Statistics Before Homogenization | | | | | | | | | |
|--|-------|--------|--------|-------|--------|--------|-------|-------|--|
| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB | |
| 9 | 9 | 200.29 | 8 | 8 | 167.46 | 6 | 6 | 63.12 | |
| 1 | 1 | 58.02 | 4 | 4 | 51.05 | 7 | 7 | 28.06 | |
| 5 | 5 | 26.24 | 3 | 3 | 20.28 | 2 | 2 | 14.76 | |
| AVERAGE: | | 69.92 | | | | | | | |

Table 8.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS | |
|----------|-------|------|--------|-------|------|--------|-------|------|--|
| 3 | 3 | 0.56 | 8 | 8 | 0.64 | 9 | 9 | 0.65 | |
| 2 | 2 | 0.67 | 4 | 4 | 0.67 | 7 | 7 | 0.69 | |
| 1 | 1 | 0.72 | 5 | 5 | 0.72 | 6 | 6 | 0.78 | |
| AVERAGE: | | 0.68 | | | | | | | |

Table 8.7c. Station parameters of the series system of Czech Republic and near border series from Slovakia, Poland

| | | | |
|---|-------------|-------------|--------|
| 1 | 17.57000003 | 49.32000002 | 222.0 |
| 2 | 17.54000003 | 49.78000004 | 749.0 |
| 3 | 18.45000002 | 49.55000003 | 1322.0 |
| 4 | 18.12000001 | 49.70000004 | 250.0 |
| 5 | 17.11055556 | 48.16861112 | 287.0 |
| 6 | 17.68055559 | 48.49194447 | 178.0 |
| 7 | 18.19416668 | 47.87305560 | 115.0 |
| 8 | 18.19166668 | 50.06166667 | 206.0 |
| 9 | 19.00111111 | 49.80805560 | 398.0 |

Annex 9. Global radiation

Table 9.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| satu | 41 | 103.28 | sombo | 35 | 83.26 | 48101 | 18 | 69.72 |
| 53101 | 21 | 64.12 | 44527 | 15 | 61.06 | 25212 | 8 | 57.03 |
| arad | 37 | 55.17 | hurba | 46 | 52.75 | stos | 48 | 50.63 |
| sanni | 40 | 49.91 | 44214 | 14 | 48.58 | kosic | 49 | 37.00 |
| lucen | 47 | 35.61 | 61709 | 27 | 32.78 | 16203 | 4 | 31.99 |
| osije | 32 | 31.89 | 66519 | 30 | 31.53 | sacui | 39 | 29.95 |
| kikin | 36 | 29.93 | 26505 | 9 | 28.28 | palic | 34 | 27.76 |
| 17809 | 5 | 27.54 | daruv | 31 | 26.56 | 36500 | 11 | 26.08 |
| 36100 | 10 | 24.87 | 55706 | 24 | 24.55 | 55502 | 23 | 24.32 |
| 58113 | 26 | 20.76 | 15307 | 3 | 20.61 | 47106 | 17 | 19.69 |
| 52819 | 20 | 19.14 | orade | 38 | 18.95 | 46303 | 16 | 18.94 |
| 23201 | 6 | 18.81 | 63411 | 28 | 18.45 | 39113 | 12 | 17.76 |
| 13703 | 1 | 16.55 | 14706 | 2 | 16.45 | 53521 | 22 | 16.10 |
| bereg | 42 | 14.83 | 44121 | 13 | 14.80 | 23703 | 7 | 13.71 |
| milho | 50 | 13.20 | uzhgo | 44 | 13.09 | 51705 | 19 | 12.75 |
| 56300 | 25 | 12.68 | slavo | 33 | 11.67 | khust | 43 | 11.58 |
| brati | 45 | 11.57 | 64704 | 29 | 7.81 | | | |
| AVERAGE: | | 30.52 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| satu | 41 | 1574.92 | 61709 | 27 | 570.24 | 44527 | 15 | 445.90 |
| 13703 | 1 | 431.82 | 47106 | 17 | 374.17 | stos | 48 | 362.10 |
| 53101 | 21 | 288.80 | arad | 37 | 268.10 | khust | 43 | 233.88 |
| milho | 50 | 233.20 | 39113 | 12 | 219.92 | 46303 | 16 | 190.93 |
| sombo | 35 | 183.17 | 58113 | 26 | 177.73 | osije | 32 | 159.05 |
| 55706 | 24 | 155.95 | kosic | 49 | 138.05 | 66519 | 30 | 130.07 |
| 17809 | 5 | 121.67 | 15307 | 3 | 120.44 | 44121 | 13 | 117.47 |
| 44214 | 14 | 107.81 | 23201 | 6 | 103.65 | sanni | 40 | 103.05 |
| 36500 | 11 | 101.52 | 55502 | 23 | 98.60 | 23703 | 7 | 97.35 |
| 64704 | 29 | 94.25 | palic | 34 | 86.74 | 53521 | 22 | 75.83 |
| 26505 | 9 | 74.22 | 52819 | 20 | 72.73 | daruv | 31 | 70.32 |
| kikin | 36 | 64.88 | 56300 | 25 | 64.48 | lucen | 47 | 62.24 |
| bereg | 42 | 60.77 | sacui | 39 | 59.67 | orade | 38 | 52.54 |
| 36100 | 10 | 50.29 | 14706 | 2 | 47.05 | 16203 | 4 | 46.13 |
| 48101 | 18 | 44.99 | 25212 | 8 | 36.34 | brati | 45 | 33.13 |
| 51705 | 19 | 30.90 | 63411 | 28 | 30.59 | hurba | 46 | 27.96 |
| uzhgo | 44 | 23.25 | slavo | 33 | 20.76 | | | |
| AVERAGE: | | 166.79 | | | | | | |

Table 9.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| lucen | 47 | 0.63 | 61709 | 27 | 0.65 | 55502 | 23 | 0.67 |
| 56300 | 25 | 0.68 | milho | 50 | 0.70 | satu | 41 | 0.70 |
| 13703 | 1 | 0.71 | 63411 | 28 | 0.72 | brati | 45 | 0.72 |
| hurba | 46 | 0.73 | 44121 | 13 | 0.73 | 44214 | 14 | 0.74 |
| sanni | 40 | 0.75 | palic | 34 | 0.76 | khust | 43 | 0.76 |
| 64704 | 29 | 0.76 | arad | 37 | 0.77 | 55706 | 24 | 0.77 |
| 15307 | 3 | 0.77 | 14706 | 2 | 0.77 | 58113 | 26 | 0.77 |
| 52819 | 20 | 0.78 | 53521 | 22 | 0.78 | bereg | 42 | 0.78 |
| 26505 | 9 | 0.78 | stos | 48 | 0.78 | orade | 38 | 0.78 |
| 16203 | 4 | 0.79 | 48101 | 18 | 0.79 | 36100 | 10 | 0.79 |
| 25212 | 8 | 0.79 | 47106 | 17 | 0.79 | 53101 | 21 | 0.79 |
| 23703 | 7 | 0.80 | 39113 | 12 | 0.80 | uzhgo | 44 | 0.80 |
| 66519 | 30 | 0.80 | 51705 | 19 | 0.81 | sacui | 39 | 0.81 |
| 36500 | 11 | 0.81 | osije | 32 | 0.81 | sombo | 35 | 0.81 |
| 23201 | 6 | 0.81 | kosic | 49 | 0.81 | kikin | 36 | 0.82 |
| 46303 | 16 | 0.83 | 17809 | 5 | 0.83 | slavo | 33 | 0.85 |
| 44527 | 15 | 0.85 | daruv | 31 | 0.86 | | | |
| AVERAGE: | | 0.77 | | | | | | |

The Stations are the same as at Table 8.1c

Table 9.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| KRV | 17 | 116.99 | ZAJ | 20 | 114.68 | SOM | 4 | 103.14 |
| ZRE | 6 | 67.72 | NEG | 14 | 59.09 | KRG | 12 | 56.71 |
| BGD | 11 | 55.33 | POZ | 16 | 51.79 | SZE | 1 | 51.12 |
| TIM | 28 | 49.95 | VRS | 8 | 44.92 | PAL | 3 | 44.92 |
| KRS | 18 | 43.77 | BAC | 21 | 42.68 | DTS | 24 | 41.13 |
| ORA | 25 | 40.17 | BAN | 22 | 37.75 | LOZ | 9 | 35.72 |
| CUP | 19 | 34.88 | KIK | 7 | 33.13 | SEM | 27 | 31.80 |
| NSA | 5 | 31.77 | ZLA | 15 | 31.08 | VLJ | 10 | 29.10 |
| SNM | 26 | 24.49 | OSI | 2 | 19.55 | SPA | 13 | 19.10 |
| CAL | 23 | 15.32 | | | | | | |
| AVERAGE: | | 47.42 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| ZAJ | 20 | 554.13 | TIM | 28 | 457.63 | SZE | 1 | 320.50 |
| KRV | 17 | 276.34 | BAC | 21 | 269.80 | SOM | 4 | 188.67 |
| PAL | 3 | 165.40 | POZ | 16 | 164.38 | ZRE | 6 | 162.49 |
| DTS | 24 | 161.88 | SEM | 27 | 134.78 | SNM | 26 | 126.28 |
| KIK | 7 | 122.29 | NSA | 5 | 113.79 | KRG | 12 | 103.42 |
| VRS | 8 | 93.94 | BAN | 22 | 82.57 | ORA | 25 | 77.84 |
| KRS | 18 | 75.36 | CUP | 19 | 58.01 | LOZ | 9 | 56.68 |
| NEG | 14 | 55.39 | BGD | 11 | 53.33 | OSI | 2 | 51.27 |
| ZLA | 15 | 44.09 | VLJ | 10 | 34.74 | SPA | 13 | 32.58 |
| CAL | 23 | 21.88 | | | | | | |
| AVERAGE: | | 144.98 | | | | | | |

Table 9.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| POZ | 16 | 0.59 | SEM | 27 | 0.64 | BAC | 21 | 0.70 |
| SZE | 1 | 0.71 | KRS | 18 | 0.72 | SNM | 26 | 0.72 |
| CUP | 19 | 0.73 | ZLA | 15 | 0.75 | CAL | 23 | 0.76 |
| OSI | 2 | 0.76 | PAL | 3 | 0.76 | ZAJ | 20 | 0.77 |
| TIM | 28 | 0.77 | VRS | 8 | 0.77 | LOZ | 9 | 0.77 |
| ORA | 25 | 0.78 | VLJ | 10 | 0.79 | DTS | 24 | 0.80 |
| BAN | 22 | 0.81 | BGD | 11 | 0.81 | NEG | 14 | 0.81 |
| KRV | 17 | 0.82 | SOM | 4 | 0.83 | SPA | 13 | 0.83 |
| KRG | 12 | 0.83 | ZRE | 6 | 0.84 | NSA | 5 | 0.86 |
| KIK | 7 | 0.86 | | | | | | |
| AVERAGE: | | 0.77 | | | | | | |

The Stations are the same as at Table 8.2c

Table 9.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 525215 | 44 | 213.90 | 457600 | 30 | 201.64 | 441757 | 20 | 158.71 |
| 539357 | 51 | 143.86 | 740330 | 96 | 139.17 | 635658 | 76 | 133.18 |
| 553254 | 58 | 125.17 | 401321 | 6 | 122.93 | 408800 | 9 | 120.10 |
| 33658 | 110 | 117.24 | 611355 | 66 | 110.31 | 751555 | 99 | 100.43 |
| 515231 | 40 | 95.23 | 617637 | 69 | 91.46 | 655650 | 83 | 85.39 |
| 608121 | 64 | 84.15 | 359521 | 5 | 83.81 | 454936 | 28 | 83.41 |
| 428307 | 14 | 77.96 | 13183 | 107 | 76.14 | 359257 | 4 | 74.62 |
| 538416 | 50 | 74.55 | 352557 | 3 | 74.53 | 507158 | 35 | 74.45 |
| 748253 | 98 | 74.32 | 13295 | 106 | 72.15 | 436447 | 17 | 71.81 |
| 711305 | 90 | 71.19 | 530535 | 48 | 70.58 | 428632 | 15 | 69.55 |
| 614740 | 68 | 69.53 | 530801 | 49 | 68.11 | 444820 | 23 | 67.95 |
| 632130 | 71 | 67.94 | 656621 | 85 | 66.04 | 542532 | 52 | 65.70 |
| 439534 | 19 | 65.47 | 443639 | 21 | 62.90 | 655522 | 82 | 62.25 |
| 647334 | 80 | 62.06 | 739615 | 95 | 57.99 | 412721 | 10 | 57.84 |
| 551716 | 57 | 56.38 | 517507 | 41 | 56.13 | 438238 | 18 | 55.94 |
| 414352 | 11 | 54.48 | 528518 | 47 | 53.08 | 722657 | 94 | 52.55 |
| 523703 | 43 | 52.51 | 347357 | 2 | 51.91 | 639744 | 77 | 51.82 |
| 546115 | 53 | 51.60 | 741640 | 97 | 49.37 | 557334 | 59 | 48.66 |
| 635347 | 75 | 48.44 | 656555 | 84 | 47.93 | 445718 | 24 | 47.44 |
| 511912 | 39 | 47.20 | 710736 | 89 | 46.62 | 604037 | 62 | 46.25 |
| 551459 | 55 | 45.48 | 758355 | 100 | 44.11 | 444417 | 22 | 43.73 |
| 714623 | 91 | 43.56 | 509649 | 37 | 43.22 | 551621 | 56 | 42.05 |
| 527527 | 46 | 41.69 | 525323 | 45 | 39.50 | 456526 | 29 | 39.06 |
| 523108 | 42 | 37.75 | 614436 | 67 | 37.47 | 709352 | 88 | 37.26 |
| 719507 | 92 | 36.58 | 417530 | 13 | 36.04 | 605537 | 63 | 35.91 |
| 66519 | 101 | 33.92 | 509441 | 36 | 32.97 | 33638 | 111 | 32.84 |
| 602213 | 61 | 32.29 | 430608 | 16 | 30.32 | 500432 | 31 | 30.21 |
| 407500 | 8 | 29.76 | 502141 | 32 | 29.01 | 646247 | 79 | 27.41 |
| 708430 | 87 | 26.87 | 548409 | 54 | 26.81 | 600608 | 60 | 26.75 |
| 650727 | 81 | 26.31 | 511349 | 38 | 25.73 | 622544 | 70 | 25.18 |
| 634322 | 74 | 24.25 | 642540 | 78 | 24.25 | 722205 | 93 | 24.07 |
| 415816 | 12 | 23.81 | 33548 | 112 | 23.13 | 452452 | 26 | 22.86 |
| 13174 | 105 | 20.52 | 33634 | 109 | 20.21 | 632229 | 72 | 19.89 |
| 632432 | 73 | 18.32 | 63411 | 103 | 18.11 | 406421 | 7 | 18.08 |
| 610244 | 65 | 17.40 | 13173 | 108 | 17.13 | 506422 | 34 | 16.62 |
| 346452 | 1 | 15.74 | 502317 | 33 | 15.46 | 703156 | 86 | 14.52 |
| 453344 | 27 | 14.49 | 58113 | 104 | 13.09 | 446853 | 25 | 11.59 |
| 64704 | 102 | 7.81 | | | | | | |
| AVERAGE: | | 55.58 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|---------|--------|-------|---------|--------|-------|---------|
| 441757 | 20 | 5499.56 | 509441 | 36 | 3148.83 | 523703 | 43 | 2173.86 |
| 751555 | 99 | 1589.71 | 611355 | 66 | 1292.84 | 401321 | 6 | 1198.39 |
| 457600 | 30 | 913.16 | 748253 | 98 | 667.18 | 655650 | 83 | 570.02 |
| 539357 | 51 | 425.32 | 530801 | 49 | 422.68 | 546115 | 53 | 417.65 |
| 507158 | 35 | 357.32 | 428307 | 14 | 345.23 | 33638 | 112 | 338.44 |
| 439534 | 19 | 336.02 | 711305 | 90 | 329.42 | 608121 | 64 | 281.29 |
| 33658 | 111 | 272.36 | 635347 | 75 | 252.69 | 632130 | 71 | 252.09 |
| 352557 | 3 | 248.69 | 445718 | 24 | 246.81 | 740330 | 96 | 243.64 |
| 553254 | 58 | 243.27 | 647334 | 80 | 242.78 | 639744 | 77 | 239.98 |

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|---------------|-----|--------|-------------------|-----|--------|--------------|-----|------------|
| <i>Report</i> | | | <i>02/10/2012</i> | | | <i>final</i> | | <i>158</i> |
| 436447 | 17 | 230.23 | 359521 | 5 | 216.46 | 517507 | 41 | 212.43 |
| 635658 | 76 | 209.32 | 655522 | 82 | 170.40 | 525323 | 45 | 162.65 |
| 530535 | 48 | 159.82 | 617637 | 69 | 158.82 | 414352 | 11 | 156.97 |
| 359257 | 4 | 154.32 | 444820 | 23 | 147.95 | 542532 | 52 | 147.53 |
| 525215 | 44 | 146.31 | 515231 | 40 | 144.83 | 710736 | 89 | 141.34 |
| 417530 | 13 | 138.60 | 509649 | 37 | 136.86 | 605537 | 63 | 136.71 |
| 443639 | 21 | 127.35 | 614740 | 68 | 127.11 | 33634 | 110 | 113.00 |
| 406421 | 7 | 112.23 | 66519 | 101 | 109.06 | 551716 | 57 | 108.38 |
| 614436 | 67 | 106.90 | 58113 | 103 | 106.71 | 741640 | 97 | 105.14 |
| 656621 | 85 | 102.90 | 13183 | 108 | 101.20 | 709352 | 88 | 96.26 |
| 739615 | 95 | 94.15 | 453344 | 27 | 93.66 | 551621 | 56 | 93.24 |
| 438238 | 18 | 92.77 | 428632 | 15 | 90.60 | 456526 | 29 | 87.78 |
| 64704 | 102 | 82.23 | 347357 | 2 | 80.94 | 642540 | 78 | 79.02 |
| 523108 | 42 | 77.89 | 502317 | 33 | 77.59 | 650727 | 81 | 74.42 |
| 452452 | 26 | 73.69 | 758355 | 100 | 73.61 | 412721 | 10 | 73.37 |
| 13295 | 106 | 69.46 | 407500 | 8 | 68.44 | 511912 | 39 | 66.01 |
| 444417 | 22 | 65.52 | 454936 | 28 | 65.11 | 604037 | 62 | 64.72 |
| 548409 | 54 | 57.87 | 13174 | 105 | 57.50 | 528518 | 47 | 56.30 |
| 13173 | 109 | 56.13 | 722657 | 94 | 55.00 | 551459 | 55 | 54.72 |
| 430608 | 16 | 53.47 | 719507 | 92 | 53.11 | 656555 | 84 | 52.30 |
| 708430 | 87 | 51.07 | 538416 | 50 | 48.87 | 703156 | 86 | 48.64 |
| 408800 | 9 | 45.40 | 415816 | 12 | 43.09 | 13285 | 107 | 41.67 |
| 511349 | 38 | 38.84 | 714623 | 91 | 37.28 | 63411 | 104 | 36.90 |
| 506422 | 34 | 36.36 | 600608 | 60 | 34.94 | 527527 | 46 | 33.89 |
| 502141 | 32 | 33.07 | 632229 | 72 | 32.98 | 557334 | 59 | 32.00 |
| 722205 | 93 | 29.47 | 622544 | 70 | 29.14 | 632432 | 73 | 28.16 |
| 500432 | 31 | 26.32 | 346452 | 1 | 23.67 | 446853 | 25 | 23.04 |
| 602213 | 61 | 20.14 | 610244 | 65 | 17.96 | 634322 | 74 | 15.36 |
| 646247 | 79 | 14.53 | | | | | | |
| AVERAGE: | | 266.07 | | | | | | |

Table 9.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 525323 | 45 | 0.42 | 527527 | 46 | 0.43 | 656555 | 84 | 0.57 |
| 33548 | 112 | 0.59 | 634322 | 74 | 0.60 | 515231 | 40 | 0.61 |
| 551621 | 56 | 0.62 | 632130 | 71 | 0.64 | 646247 | 79 | 0.64 |
| 511349 | 38 | 0.65 | 523703 | 43 | 0.66 | 58113 | 104 | 0.66 |
| 63411 | 103 | 0.67 | 539357 | 51 | 0.67 | 456526 | 29 | 0.68 |
| 346452 | 1 | 0.69 | 751555 | 99 | 0.70 | 414352 | 11 | 0.71 |
| 530535 | 48 | 0.71 | 347357 | 2 | 0.71 | 739615 | 95 | 0.71 |
| 748253 | 98 | 0.71 | 511912 | 39 | 0.71 | 605537 | 63 | 0.72 |
| 509649 | 37 | 0.72 | 352557 | 3 | 0.73 | 710736 | 89 | 0.73 |
| 602213 | 61 | 0.73 | 647334 | 80 | 0.73 | 709352 | 88 | 0.73 |
| 452452 | 26 | 0.73 | 33634 | 109 | 0.74 | 428307 | 14 | 0.74 |
| 507158 | 35 | 0.74 | 412721 | 10 | 0.74 | 740330 | 96 | 0.74 |
| 453344 | 27 | 0.74 | 530801 | 49 | 0.74 | 604037 | 62 | 0.75 |
| 548409 | 54 | 0.75 | 655522 | 82 | 0.75 | 722657 | 94 | 0.75 |
| 622544 | 70 | 0.75 | 642540 | 78 | 0.75 | 538416 | 50 | 0.76 |
| 407500 | 8 | 0.76 | 502317 | 33 | 0.76 | 509441 | 36 | 0.76 |
| 611355 | 66 | 0.76 | 359521 | 5 | 0.76 | 502141 | 32 | 0.76 |
| 417530 | 13 | 0.76 | 758355 | 100 | 0.76 | 64704 | 102 | 0.76 |
| 553254 | 58 | 0.77 | 33638 | 111 | 0.77 | 66519 | 101 | 0.77 |
| 719507 | 92 | 0.77 | 430608 | 16 | 0.77 | 13183 | 107 | 0.77 |
| 33658 | 110 | 0.77 | 711305 | 90 | 0.77 | 408800 | 9 | 0.77 |
| 436447 | 17 | 0.77 | 444820 | 23 | 0.77 | 454936 | 28 | 0.77 |
| 439534 | 19 | 0.78 | 428632 | 15 | 0.78 | 517507 | 41 | 0.78 |
| 457600 | 30 | 0.78 | 635347 | 75 | 0.78 | 13173 | 108 | 0.78 |

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|---------------|-----|-------------------|--------|--------------|------|------------|-----|------|
| <i>Report</i> | | <i>02/10/2012</i> | | <i>final</i> | | <i>159</i> | | |
| 528518 | 47 | 0.78 | 506422 | 34 | 0.78 | 600608 | 60 | 0.78 |
| 401321 | 6 | 0.78 | 656621 | 85 | 0.79 | 525215 | 44 | 0.79 |
| 546115 | 53 | 0.79 | 557334 | 59 | 0.79 | 614436 | 67 | 0.79 |
| 551459 | 55 | 0.79 | 446853 | 25 | 0.79 | 703156 | 86 | 0.79 |
| 542532 | 52 | 0.79 | 610244 | 65 | 0.79 | 445718 | 24 | 0.80 |
| 614740 | 68 | 0.80 | 639744 | 77 | 0.80 | 635658 | 76 | 0.80 |
| 632229 | 72 | 0.80 | 632432 | 73 | 0.80 | 415816 | 12 | 0.81 |
| 523108 | 42 | 0.81 | 608121 | 64 | 0.81 | 650727 | 81 | 0.81 |
| 741640 | 97 | 0.81 | 714623 | 91 | 0.81 | 722205 | 93 | 0.81 |
| 438238 | 18 | 0.81 | 444417 | 22 | 0.81 | 13295 | 106 | 0.81 |
| 443639 | 21 | 0.81 | 655650 | 83 | 0.81 | 617637 | 69 | 0.82 |
| 551716 | 57 | 0.82 | 359257 | 4 | 0.82 | 441757 | 20 | 0.82 |
| 406421 | 7 | 0.82 | 708430 | 87 | 0.83 | 500432 | 31 | 0.85 |
| 13174 | 105 | 0.85 | | | | | | |
| AVERAGE: | | 0.75 | | | | | | |

The Stations are the same as at Table 8.3c

Table 9.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 9 | 9 | 59.59 | 21 | 21 | 46.18 | 3 | 3 | 43.33 |
| 2 | 2 | 39.32 | 13 | 13 | 33.17 | 24 | 24 | 30.59 |
| 6 | 6 | 30.47 | 7 | 7 | 23.76 | 8 | 8 | 23.19 |
| 1 | 1 | 22.45 | 19 | 19 | 20.12 | 23 | 23 | 19.61 |
| 18 | 18 | 18.99 | 22 | 22 | 18.84 | 17 | 17 | 18.80 |
| 10 | 10 | 18.44 | 5 | 5 | 17.83 | 14 | 14 | 16.95 |
| 11 | 11 | 14.94 | 12 | 12 | 14.63 | 15 | 15 | 13.88 |
| 16 | 16 | 8.58 | 20 | 20 | 8.51 | 4 | 4 | 8.22 |
| AVERAGE: | | 23.77 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 22 | 22 | 830.34 | 13 | 13 | 593.10 | 21 | 21 | 446.84 |
| 6 | 6 | 402.30 | 9 | 9 | 374.62 | 17 | 17 | 344.44 |
| 24 | 24 | 215.82 | 3 | 3 | 205.97 | 16 | 16 | 182.23 |
| 11 | 11 | 164.54 | 2 | 2 | 144.59 | 1 | 1 | 136.42 |
| 18 | 18 | 85.49 | 19 | 19 | 65.20 | 10 | 10 | 61.95 |
| 23 | 23 | 61.95 | 15 | 15 | 60.70 | 5 | 5 | 51.87 |
| 14 | 14 | 40.38 | 12 | 12 | 36.79 | 20 | 20 | 25.13 |
| 8 | 8 | 24.85 | 4 | 4 | 21.06 | 7 | 7 | 15.69 |
| AVERAGE: | | 191.35 | | | | | | |

Table 9.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 1 | 1 | 0.53 | 21 | 21 | 0.59 | 17 | 17 | 0.65 |
| 12 | 12 | 0.66 | 4 | 4 | 0.67 | 18 | 18 | 0.69 |
| 14 | 14 | 0.70 | 13 | 13 | 0.71 | 16 | 16 | 0.72 |
| 8 | 8 | 0.72 | 3 | 3 | 0.73 | 5 | 5 | 0.74 |
| 9 | 9 | 0.74 | 6 | 6 | 0.74 | 19 | 19 | 0.77 |
| 10 | 10 | 0.77 | 2 | 2 | 0.77 | 11 | 11 | 0.78 |
| 22 | 22 | 0.80 | 15 | 15 | 0.83 | 20 | 20 | 0.83 |
| 24 | 24 | 0.83 | 7 | 7 | 0.83 | 23 | 23 | 0.85 |
| AVERAGE: | | 0.74 | | | | | | |

The Stations are the same as at Table 8.4c

Table 9.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 600 | 21 | 64.33 | 53101 | 19 | 58.49 | 11946 | 9 | 43.36 |
| 61709 | 20 | 41.66 | 11782 | 29 | 41.64 | 11993 | 12 | 38.56 |
| 33631 | 13 | 35.02 | 11931 | 7 | 32.95 | 11819 | 2 | 32.16 |
| 660 | 24 | 29.44 | 23201 | 15 | 27.42 | 23703 | 16 | 26.50 |
| 11978 | 11 | 25.94 | 11766 | 27 | 25.20 | 11910 | 5 | 24.69 |
| 11813 | 1 | 24.50 | 690 | 25 | 23.93 | 625 | 22 | 23.24 |
| 11774 | 26 | 22.64 | 650 | 23 | 22.52 | 33634 | 14 | 18.38 |
| 11787 | 28 | 17.70 | 11858 | 3 | 17.14 | 44121 | 17 | 16.58 |
| 11927 | 6 | 15.10 | 51705 | 18 | 14.35 | 11968 | 10 | 13.29 |
| 11903 | 4 | 8.76 | 11938 | 8 | 7.84 | | | |
| AVERAGE: | | 27.36 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 11946 | 9 | 1000.42 | 61709 | 20 | 599.33 | 53101 | 19 | 461.51 |
| 600 | 21 | 289.17 | 11910 | 5 | 275.21 | 11978 | 11 | 216.49 |
| 11968 | 10 | 188.89 | 23201 | 15 | 150.10 | 11819 | 2 | 134.02 |
| 51705 | 18 | 95.03 | 11938 | 8 | 94.20 | 23703 | 16 | 91.58 |
| 11813 | 1 | 87.55 | 44121 | 17 | 83.05 | 690 | 25 | 59.03 |
| 11993 | 12 | 58.87 | 11931 | 7 | 50.35 | 660 | 24 | 48.07 |
| 33634 | 14 | 45.37 | 11782 | 29 | 35.45 | 650 | 23 | 34.76 |
| 11858 | 3 | 30.15 | 11787 | 28 | 30.05 | 11766 | 27 | 29.36 |
| 11774 | 26 | 29.21 | 11927 | 6 | 28.60 | 11903 | 4 | 26.51 |
| 33631 | 13 | 22.53 | 625 | 22 | 20.99 | | | |
| AVERAGE: | | 148.82 | | | | | | |

Table 9.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 44121 | 17 | 0.58 | 11787 | 28 | 0.59 | 61709 | 20 | 0.61 |
| 625 | 22 | 0.62 | 690 | 25 | 0.64 | 11782 | 29 | 0.65 |
| 11766 | 27 | 0.66 | 53101 | 19 | 0.67 | 600 | 21 | 0.70 |
| 650 | 23 | 0.70 | 11931 | 7 | 0.70 | 11858 | 3 | 0.71 |
| 11774 | 26 | 0.71 | 11813 | 1 | 0.73 | 11978 | 11 | 0.73 |
| 11910 | 5 | 0.73 | 660 | 24 | 0.74 | 11927 | 6 | 0.74 |
| 11938 | 8 | 0.75 | 51705 | 18 | 0.75 | 33634 | 14 | 0.76 |
| 23703 | 16 | 0.78 | 23201 | 15 | 0.79 | 11903 | 4 | 0.79 |
| 11819 | 2 | 0.79 | 11993 | 12 | 0.80 | 11946 | 9 | 0.80 |
| 11968 | 10 | 0.81 | 33631 | 13 | 0.81 | | | |
| AVERAGE: | | 0.72 | | | | | | |

Table 9.5c Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| | | | | |
|----|-------------|-------------|--------|-------|
| 1 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 2 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 3 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 4 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 5 | 19.64666670 | 48.64444448 | 1015.0 | 11910 |
| 6 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 7 | 20.23583335 | 49.18944445 | 1778.0 | 11931 |
| 8 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 9 | 20.80138893 | 48.71666670 | 575.0 | 11946 |
| 10 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 11 | 21.73472226 | 48.66805559 | 104.0 | 11978 |
| 12 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 13 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 14 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 15 | 19.02805556 | 47.06111111 | 153.0 | 44121 |
| 16 | 17.67472226 | 47.71000004 | 117.0 | 23703 |
| 17 | 20.53611114 | 48.49527780 | 309.0 | 51705 |
| 18 | 20.01666667 | 47.86666671 | 111.3 | 53101 |
| 19 | 17.26722224 | 47.88972227 | 121.0 | 23201 |
| 20 | 21.65888892 | 48.38083335 | 100.0 | 61709 |
| 21 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 22 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 23 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 24 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 25 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 26 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 27 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 28 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 29 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 9.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 1 | 1 | 71.31 | 5 | 5 | 66.08 | 2 | 2 | 62.40 |
| 10 | 10 | 61.73 | 4 | 4 | 41.95 | 13 | 13 | 35.29 |
| 3 | 3 | 28.39 | 9 | 9 | 27.76 | 14 | 14 | 25.83 |
| 7 | 7 | 25.59 | 8 | 8 | 25.56 | 6 | 6 | 24.45 |
| 16 | 16 | 22.18 | 11 | 11 | 20.63 | 12 | 12 | 13.34 |
| 15 | 15 | 11.36 | 17 | 17 | 5.40 | | | |
| AVERAGE: | | 33.49 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 4 | 4 | 514.45 | 1 | 1 | 209.62 | 5 | 5 | 153.50 |
| 2 | 2 | 115.14 | 14 | 14 | 54.86 | 11 | 11 | 44.42 |
| 10 | 10 | 42.40 | 13 | 13 | 39.09 | 12 | 12 | 37.75 |
| 16 | 16 | 36.95 | 6 | 6 | 34.75 | 8 | 8 | 33.67 |
| 9 | 9 | 33.45 | 3 | 3 | 32.59 | 7 | 7 | 31.69 |
| 15 | 15 | 10.58 | 17 | 17 | 4.89 | | | |
| AVERAGE: | | 84.11 | | | | | | |

Table 9.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 17 | 17 | 0.52 | 2 | 2 | 0.57 | 12 | 12 | 0.60 |
| 6 | 6 | 0.63 | 1 | 1 | 0.66 | 13 | 13 | 0.66 |
| 11 | 11 | 0.68 | 16 | 16 | 0.69 | 15 | 15 | 0.69 |
| 10 | 10 | 0.70 | 5 | 5 | 0.70 | 4 | 4 | 0.71 |
| 7 | 7 | 0.71 | 9 | 9 | 0.72 | 3 | 3 | 0.75 |
| 14 | 14 | 0.75 | 8 | 8 | 0.77 | | | |
| AVERAGE: | | 0.68 | | | | | | |

The Stations are the same as at Table 8.6c

Table 9.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

I. TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA | |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|--|
| 8 | 8 | 76.51 | 4 | 4 | 49.23 | 9 | 9 | 42.46 | |
| 6 | 6 | 36.11 | 2 | 2 | 20.63 | 1 | 1 | 18.39 | |
| 5 | 5 | 16.12 | 7 | 7 | 15.98 | 3 | 3 | 13.34 | |
| AVERAGE: | | 32.08 | | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB | |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|--|
| 9 | 9 | 195.78 | 8 | 8 | 158.23 | 6 | 6 | 109.59 | |
| 4 | 4 | 50.93 | 5 | 5 | 47.63 | 1 | 1 | 29.21 | |
| 2 | 2 | 27.23 | 3 | 3 | 22.75 | 7 | 7 | 21.02 | |
| AVERAGE: | | 73.59 | | | | | | | |

Table 9.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS | |
|----------|-------|------|--------|-------|------|--------|-------|------|--|
| 3 | 3 | 0.60 | 9 | 9 | 0.65 | 8 | 8 | 0.66 | |
| 4 | 4 | 0.66 | 7 | 7 | 0.67 | 2 | 2 | 0.68 | |
| 5 | 5 | 0.71 | 1 | 1 | 0.72 | 6 | 6 | 0.78 | |
| AVERAGE: | | 0.68 | | | | | | | |

The Stations are the same as at Table 8.7c

Annex 10. Wind speed

Table 10.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 608121 | 54 | 234.96 | 23201 | 8 | 141.81 | 11803 | 60 | 119.85 |
| 11946 | 64 | 108.33 | daruv | 44 | 106.10 | 33634 | 58 | 87.80 |
| 11858 | 62 | 79.42 | 17306 | 6 | 77.61 | 748253 | 56 | 68.43 |
| donji | 46 | 68.37 | djurd | 45 | 68.18 | 61709 | 38 | 65.79 |
| 703156 | 55 | 65.43 | 16204 | 4 | 65.11 | 57311 | 35 | 62.29 |
| 33631 | 57 | 58.95 | 53101 | 29 | 53.79 | valpo | 49 | 52.47 |
| 36407 | 16 | 52.05 | 46303 | 24 | 49.03 | 54306 | 31 | 46.97 |
| 604037 | 53 | 43.70 | KIK | 52 | 43.35 | PAL | 50 | 43.31 |
| 13704 | 1 | 42.87 | 33638 | 59 | 41.65 | SOM | 51 | 39.70 |
| 66519 | 41 | 38.31 | 11927 | 63 | 37.80 | slavo | 48 | 37.46 |
| 14706 | 2 | 37.07 | 55706 | 33 | 36.33 | 44121 | 21 | 33.96 |
| 73302 | 42 | 33.30 | 36100 | 15 | 32.00 | 36500 | 17 | 30.67 |
| osije | 47 | 29.80 | 47106 | 25 | 29.47 | 25212 | 10 | 29.29 |
| 52819 | 28 | 28.50 | 44527 | 23 | 28.22 | bjelo | 43 | 27.35 |
| 51705 | 27 | 27.09 | 64704 | 40 | 26.50 | 53521 | 30 | 25.43 |
| 38605 | 18 | 25.22 | 56300 | 34 | 24.64 | 11978 | 66 | 23.68 |
| 11968 | 65 | 23.64 | 58113 | 36 | 23.49 | 15310 | 3 | 23.43 |
| 55502 | 32 | 23.05 | 34211 | 14 | 22.67 | 11813 | 61 | 22.25 |
| 39113 | 19 | 21.53 | 27815 | 12 | 21.38 | 26505 | 11 | 18.87 |
| 63411 | 39 | 18.34 | 43613 | 20 | 17.85 | 44214 | 22 | 17.63 |
| 48101 | 26 | 16.55 | 23703 | 9 | 15.94 | 28700 | 13 | 14.06 |
| 17809 | 7 | 13.44 | 58300 | 37 | 12.22 | 16414 | 5 | 11.98 |
| AVERAGE: | | 44.97 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| bjelo | 43 | 2858.30 | 38605 | 18 | 2260.02 | 46303 | 24 | 2045.41 |
| 58300 | 37 | 1773.18 | 33634 | 58 | 1672.51 | 52819 | 28 | 1541.41 |
| 27815 | 12 | 1433.25 | 34211 | 14 | 1426.78 | valpo | 49 | 1291.31 |
| 13704 | 1 | 1200.98 | 23201 | 8 | 1197.05 | 36407 | 16 | 1101.68 |
| 748253 | 56 | 1042.31 | 54306 | 31 | 993.40 | 56300 | 34 | 980.56 |
| 57311 | 35 | 978.80 | 63411 | 39 | 962.42 | 55502 | 32 | 938.31 |
| 64704 | 40 | 883.20 | 17809 | 7 | 862.66 | 11946 | 64 | 859.06 |
| 73302 | 42 | 832.08 | PAL | 50 | 825.13 | 16414 | 5 | 784.04 |
| 66519 | 41 | 699.80 | 608121 | 54 | 658.93 | 44121 | 21 | 577.86 |
| 44527 | 23 | 565.11 | 44214 | 22 | 544.00 | 53101 | 29 | 538.08 |
| 53521 | 30 | 529.20 | osije | 47 | 493.19 | 16204 | 4 | 479.42 |
| KIK | 52 | 468.06 | 33638 | 59 | 466.19 | 61709 | 38 | 459.16 |
| 11968 | 65 | 430.09 | 28700 | 13 | 426.67 | daruv | 44 | 419.22 |
| 23703 | 9 | 418.73 | 25212 | 10 | 416.34 | 43613 | 20 | 326.08 |
| 11858 | 62 | 318.31 | SOM | 51 | 316.72 | donji | 46 | 311.97 |
| 36500 | 17 | 299.74 | 33631 | 57 | 282.79 | 48101 | 26 | 217.27 |
| 604037 | 53 | 197.96 | 47106 | 25 | 182.87 | 55706 | 33 | 173.13 |
| 11813 | 61 | 167.90 | 17306 | 6 | 155.10 | 39113 | 19 | 149.60 |
| 51705 | 27 | 143.43 | slavo | 48 | 142.66 | 11927 | 63 | 141.61 |
| djurd | 45 | 130.32 | 703156 | 55 | 130.12 | 11803 | 60 | 130.07 |
| 58113 | 36 | 128.37 | 36100 | 15 | 114.99 | 15310 | 3 | 107.86 |
| 26505 | 11 | 94.61 | 14706 | 2 | 89.95 | 11978 | 66 | 76.66 |
| AVERAGE: | | 664.61 | | | | | | |

Table 10.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11813 | 61 | 0.16 | valpo | 49 | 0.18 | 34211 | 14 | 0.24 |
| 11803 | 60 | 0.24 | 46303 | 24 | 0.26 | 27815 | 12 | 0.26 |
| 11858 | 62 | 0.28 | 28700 | 13 | 0.30 | slavo | 48 | 0.30 |
| 48101 | 26 | 0.30 | 11927 | 63 | 0.31 | 36500 | 17 | 0.31 |
| 43613 | 20 | 0.32 | 16204 | 4 | 0.32 | 73302 | 42 | 0.33 |
| 38605 | 18 | 0.33 | 17306 | 6 | 0.35 | donji | 46 | 0.36 |
| 11978 | 66 | 0.36 | 57311 | 35 | 0.37 | 23201 | 8 | 0.37 |
| osije | 47 | 0.38 | 703156 | 55 | 0.39 | 26505 | 11 | 0.39 |
| 39113 | 19 | 0.40 | 15310 | 3 | 0.42 | 58300 | 37 | 0.43 |
| 55502 | 32 | 0.43 | 53521 | 30 | 0.44 | daruv | 44 | 0.45 |
| bjelo | 43 | 0.45 | 56300 | 34 | 0.45 | 61709 | 38 | 0.45 |
| 58113 | 36 | 0.46 | 16414 | 5 | 0.46 | PAL | 50 | 0.47 |
| 53101 | 29 | 0.47 | KIK | 52 | 0.47 | 54306 | 31 | 0.47 |
| 748253 | 56 | 0.48 | 51705 | 27 | 0.49 | 25212 | 10 | 0.49 |
| djurđ | 45 | 0.51 | 36100 | 15 | 0.51 | 33638 | 59 | 0.51 |
| 36407 | 16 | 0.52 | 63411 | 39 | 0.53 | 66519 | 41 | 0.53 |
| 33634 | 58 | 0.54 | SOM | 51 | 0.54 | 11946 | 64 | 0.54 |
| 14706 | 2 | 0.54 | 23703 | 9 | 0.54 | 44121 | 21 | 0.55 |
| 13704 | 1 | 0.55 | 604037 | 53 | 0.57 | 47106 | 25 | 0.58 |
| 44214 | 22 | 0.58 | 11968 | 65 | 0.58 | 52819 | 28 | 0.62 |
| 33631 | 57 | 0.62 | 55706 | 33 | 0.63 | 64704 | 40 | 0.63 |
| 17809 | 7 | 0.66 | 608121 | 54 | 0.66 | 44527 | 23 | 0.69 |
| AVERAGE: | | 0.44 | | | | | | |

Table 10.1c Station parameters of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

| index | lambda(x) | fi(y) | h | stno | stna | country |
|-------|-------------|-------------|-------|-------|-------------------------------------|---------|
| 1 | 16.60222222 | 47.67833333 | 233.8 | 13703 | Sopron Kuruc-domb | HU |
| 2 | 16.72916666 | 47.48138888 | 198.9 | 14706 | Sopronhorpács | HU |
| 3 | 16.64777777 | 47.19833333 | 201.1 | 15307 | Szombathely | HU |
| 4 | 16.30944444 | 46.91027777 | 311.7 | 16203 | Szentgotthárd Farkasfa | HU |
| 5 | 16.81280000 | 46.92580000 | 240.1 | 16414 | Zalaegerszeg Nagyutas | HU |
| 6 | 16.61305555 | 46.60555555 | 165.3 | 17308 | Iklódbördőce | HU |
| 7 | 16.97060000 | 46.45610000 | 139.8 | 17809 | Nagykanizsa | HU |
| 8 | 17.26720000 | 47.88970000 | 121.0 | 23201 | Mosonmagyaróvár | HU |
| 9 | 17.67470000 | 47.71000000 | 116.7 | 23703 | Győr Likócs | HU |
| 10 | 17.37220000 | 47.29220000 | 135.5 | 25212 | Pápa Nyárád | HU |
| 11 | 17.23860000 | 46.73560000 | 111.7 | 26505 | Keszthely Tanyakereszt | HU |
| 12 | 17.87380000 | 46.36270000 | 129.5 | 27815 | Kaposvár | HU |
| 13 | 17.52690000 | 46.10330000 | 159.0 | 28700 | Homokszentgyörgy | HU |
| 14 | 18.31080000 | 47.65170000 | 123.8 | 34211 | Tata | HU |
| 15 | 18.04080000 | 46.91080000 | 108.2 | 36100 | Siófok | HU |
| 16 | 18.95220000 | 46.95060000 | 147.7 | 36407 | Dunaújváros | HU |
| 17 | 18.18360000 | 46.68560000 | 165.0 | 36500 | Iregszemcse | HU |
| 18 | 18.25220000 | 46.13470000 | 395.7 | 38605 | Pécs Árpádtető | HU |
| 19 | 18.23500000 | 45.99500000 | 200.2 | 39113 | Pécs Pogány | HU |
| 20 | 19.28360000 | 47.79000000 | 242.9 | 43613 | Penc | HU |
| 21 | 19.02810000 | 47.51110000 | 153.3 | 44121 | Budapest belterület | HU |
| 22 | 19.47640000 | 47.65560000 | 162.4 | 44214 | Aszód | HU |
| 23 | 19.18220000 | 47.42920000 | 139.1 | 44527 | Budapest Pestszentlőrinc-külterület | HU |
| 24 | 19.74830000 | 46.91310000 | 114.0 | 46303 | Kecskemét külterület | HU |
| 25 | 19.09890000 | 46.51030000 | 93.6 | 47106 | Kalocsa Öregcsertő | HU |
| 26 | 19.01670000 | 46.18330000 | 113.0 | 48101 | Baja Csávoly | HU |
| 27 | 20.53610000 | 48.49530000 | 308.9 | 51705 | Jósvafő | HU |
| 28 | 20.77140000 | 48.09690000 | 232.8 | 52819 | Miskolc Avás | HU |
| 29 | 20.01670000 | 47.86670000 | 111.3 | 53101 | Kékestető | HU |
| 30 | 20.23580000 | 47.73970000 | 123.3 | 53521 | Kompolt | HU |
| 31 | 20.64780000 | 47.64470000 | 90.2 | 54306 | Poroszló | HU |
| 32 | 20.20000000 | 47.12860000 | 90.0 | 55502 | Szolnok Szandaszőlős | HU |
| 33 | 20.74000000 | 47.10640000 | 85.9 | 55706 | Túrkeve | HU |
| 34 | 20.52780000 | 46.86940000 | 85.4 | 56300 | Szarvas | HU |

| | | | | | | |
|----|-------------|-------------|-------|--------|--------------------|----|
| 35 | 20.68750000 | 46.54420000 | 88.8 | 57311 | Orosháza | HU |
| 36 | 20.09030000 | 46.25610000 | 81.8 | 58113 | Szeged külterület | HU |
| 37 | 20.73670000 | 46.31720000 | 94.8 | 58300 | Pitvaros | HU |
| 38 | 21.65890000 | 48.38080000 | 100.4 | 61709 | Sátoraljaújhely | HU |
| 39 | 21.88690000 | 47.96220000 | 142.1 | 63411 | Nyíregyháza Napkor | HU |
| 40 | 21.61080000 | 47.49030000 | 107.6 | 64704 | Debrecen | HU |
| 41 | 21.16060000 | 46.67940000 | 84.0 | 66519 | Békéscsaba | HU |
| 42 | 22.62560000 | 47.86220000 | 118.3 | 73302 | Pátyod | HU |
| 43 | 16.85000000 | 45.91700000 | 141.0 | bjelo | Bjelovar | CR |
| 44 | 17.23300000 | 45.60000000 | 161.0 | daruv | Daruvar | CR |
| 45 | 17.06700000 | 46.05000000 | 121.0 | djurd | Djurdjevac | CR |
| 46 | 18.16700000 | 45.76700000 | 97.0 | donji | Donji Miholjac | CR |
| 47 | 18.63300000 | 45.53300000 | 89.0 | osije | Osijek | CR |
| 48 | 18.00000000 | 45.16600000 | 88.0 | slavo | Slavonski Brod | CR |
| 49 | 18.35000000 | 45.66700000 | 92.0 | valpo | Valpovo | CR |
| 50 | 19.76410000 | 46.09720000 | 102.0 | palic | Palic | RS |
| 51 | 19.14310000 | 45.76700000 | 87.0 | sombo | Sombor | RS |
| 52 | 20.46460000 | 45.84260000 | 80.0 | kikin | Kikinda | RS |
| 53 | 20.603163 | 46.071633 | 85.0 | 604037 | SANNICOLAU MARE | RO |
| 54 | 21.355219 | 46.133851 | 117.0 | 608121 | ARAD | RO |
| 55 | 21.897545 | 47.03602 | 136.0 | 703156 | ORADEA | RO |
| 56 | 22.888782 | 47.721768 | 128.0 | 748253 | SATU MARE | RO |
| 57 | 22.26666668 | 48.63333337 | 113.0 | 33631 | Uzhgorod | UA |
| 58 | 22.65000003 | 48.20000001 | 113.0 | 33634 | Beregove | UA |
| 59 | 23.30000002 | 48.18333334 | 164.0 | 33638 | Khust | UA |
| 60 | 18.02916667 | 48.89694449 | 209.0 | 11803 | | SK |
| 61 | 17.11055556 | 48.16861112 | 287.0 | 11813 | | SK |
| 62 | 18.19416668 | 47.87305560 | 115.0 | 11858 | | SK |
| 63 | 19.66666670 | 48.32916668 | 187.0 | 11927 | | SK |
| 64 | 20.80138893 | 48.71666670 | 575.0 | 11946 | | SK |
| 65 | 21.22250001 | 48.67222226 | 230.0 | 11968 | | SK |
| 66 | 21.73472226 | 48.66805559 | 104.0 | 11978 | | SK |

Table 10.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| SNM | 40 | 148.12 | ZLA | 25 | 139.27 | ORA | 37 | 123.43 |
| LOZ | 14 | 111.96 | OSI | 1 | 107.98 | KIK | 9 | 95.60 |
| BAJ | 3 | 95.22 | VLJ | 19 | 95.09 | BPT | 10 | 89.73 |
| ZRE | 12 | 81.51 | ZAJ | 33 | 79.76 | NEG | 23 | 73.27 |
| ALE | 32 | 72.37 | VBA | 28 | 68.93 | SEN | 8 | 68.79 |
| BGD | 16 | 64.81 | ZAG | 22 | 64.35 | VAL | 2 | 60.87 |
| SRM | 15 | 57.96 | LJU | 18 | 57.96 | BCL | 35 | 56.86 |
| SOM | 6 | 53.04 | BAN | 38 | 52.64 | VGR | 17 | 52.07 |
| NSA | 11 | 48.43 | KRV | 27 | 47.17 | BBA | 24 | 46.75 |
| KRG | 21 | 46.18 | CUP | 31 | 45.23 | KRS | 30 | 43.18 |
| CAL | 34 | 39.08 | REK | 29 | 37.35 | BEC | 7 | 36.67 |
| PAL | 5 | 35.36 | VRS | 13 | 32.54 | SZE | 4 | 30.48 |
| POZ | 26 | 27.37 | SPL | 20 | 20.92 | DTS | 36 | 19.07 |
| TIM | 39 | 17.19 | | | | | | |
| AVERAGE: | | 63.61 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| BPT | 10 | 1466.97 | PAL | 5 | 1268.60 | KIK | 9 | 1248.12 |
| ZRE | 12 | 911.10 | VAL | 2 | 819.80 | VLJ | 19 | 736.37 |
| SEN | 8 | 599.37 | POZ | 26 | 518.96 | ZAG | 22 | 510.24 |
| CAL | 34 | 461.82 | NEG | 23 | 459.05 | TIM | 39 | 431.17 |
| ZAJ | 33 | 421.15 | ZLA | 25 | 357.24 | OSI | 1 | 349.30 |
| KRG | 21 | 325.50 | VGR | 17 | 320.78 | SRM | 15 | 310.12 |
| BAN | 38 | 301.18 | KRV | 27 | 295.34 | LOZ | 14 | 255.90 |
| ALE | 32 | 239.12 | BGD | 16 | 236.37 | BAJ | 3 | 215.09 |
| SOM | 6 | 195.01 | ORA | 37 | 182.49 | SNM | 40 | 175.49 |
| VBA | 28 | 163.28 | BEC | 7 | 137.30 | BBA | 24 | 125.63 |
| CUP | 31 | 125.28 | REK | 29 | 120.15 | BCL | 35 | 115.22 |
| SPL | 20 | 112.72 | NSA | 11 | 106.19 | LJU | 18 | 81.90 |
| KRS | 30 | 77.60 | VRS | 13 | 66.82 | SZE | 4 | 59.55 |
| DTS | 36 | 35.70 | | | | | | |
| AVERAGE: | | 373.47 | | | | | | |

Table 10.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| VAL | 2 | 0.16 | SPL | 20 | 0.27 | CAL | 34 | 0.27 |
| KRS | 30 | 0.30 | BGD | 16 | 0.31 | BAJ | 3 | 0.34 |
| VLJ | 19 | 0.35 | PAL | 5 | 0.35 | SZE | 4 | 0.37 |
| OSI | 1 | 0.38 | ZAJ | 33 | 0.40 | LJU | 18 | 0.41 |
| SRM | 15 | 0.42 | REK | 29 | 0.43 | KRV | 27 | 0.43 |
| BAN | 38 | 0.47 | KRG | 21 | 0.47 | ALE | 32 | 0.49 |
| DTS | 36 | 0.49 | LOZ | 14 | 0.50 | BEC | 7 | 0.50 |
| SOM | 6 | 0.50 | BPT | 10 | 0.51 | SEN | 8 | 0.51 |
| KIK | 9 | 0.52 | VBA | 28 | 0.53 | ZAG | 22 | 0.53 |
| ZRE | 12 | 0.54 | VGR | 17 | 0.54 | TIM | 39 | 0.54 |
| BBA | 24 | 0.54 | ORA | 37 | 0.54 | ZLA | 25 | 0.55 |
| NSA | 11 | 0.56 | CUP | 31 | 0.56 | SNM | 40 | 0.56 |
| POZ | 26 | 0.57 | VRS | 13 | 0.61 | BCL | 35 | 0.62 |
| NEG | 23 | 0.63 | | | | | | |
| AVERAGE: | | 0.46 | | | | | | |

Table 10.2c Station parameters of the series system of Serbia and near border series from Croatia, Hungary, Romania

| index | lambda(x) | fi(y) | |
|-------|------------|------------|-----------------------|
| 1 | 18.5614167 | 45.4998889 | Osijek |
| 2 | 18.3447778 | 45.6665278 | Valpovo |
| 3 | 19.0166667 | 46.1833333 | Baja |
| 4 | 20.0902778 | 46.2561111 | Szeged |
| 5 | 19.7640230 | 46.0972180 | Palic |
| 6 | 19.1431350 | 45.7670000 | Sombor |
| 7 | 20.0278611 | 45.6332500 | Becej |
| 8 | 20.0960450 | 45.9234420 | Senta |
| 9 | 20.4646400 | 45.8426340 | Kikinda |
| 10 | 19.6704870 | 45.3365990 | Backi Petrovac |
| 11 | 19.8300030 | 45.3222150 | Novi Sad |
| 12 | 20.3760080 | 45.3987240 | Zrenjanin |
| 13 | 21.3055240 | 45.1441370 | Vrsac |
| 14 | 19.2269330 | 44.5410990 | Loznica |
| 15 | 19.5550360 | 45.0093730 | Sremska Mitrovica |
| 16 | 20.4648220 | 44.7984570 | Beograd |
| 17 | 21.4984300 | 44.7526140 | Veliko Gradiste |
| 18 | 19.2978090 | 44.2752810 | Ljubovija |
| 19 | 19.9124730 | 44.2754640 | Valjevo |
| 20 | 20.9277710 | 44.0272220 | Kragujevac |
| 21 | 20.9421460 | 44.3696000 | Smederevska Palanka |
| 22 | 21.7795770 | 44.1997370 | Zagubica |
| 23 | 22.5363400 | 44.2391570 | Negotin |
| 24 | 19.5614595 | 43.9667870 | Bajina Basta |
| 25 | 19.7130230 | 43.7378070 | Zlatibor |
| 26 | 20.0295210 | 43.8430700 | Pozega |
| 27 | 20.6998360 | 43.7088840 | Kraljevo |
| 28 | 20.8890278 | 43.6177222 | Vrnjacka Banja |
| 29 | 21.0945833 | 43.8668611 | Rekovac |
| 30 | 21.3399540 | 43.5640540 | Krusevac |
| 31 | 21.3806360 | 43.9406160 | Cuprija |
| 32 | 21.7112222 | 43.5336111 | Aleksinac |
| 33 | 22.2885650 | 43.8831280 | Zajecar |
| 34 | 22.9475700 | 43.9852500 | Calafat |
| 35 | 23.1145800 | 44.4767200 | Bicles |
| 36 | 22.6276500 | 44.6267300 | Drobeta Turnu Severin |
| 37 | 21.7118400 | 45.0389600 | Oravita |
| 38 | 21.1379700 | 45.3830500 | Banloc |
| 39 | 21.2593600 | 45.7714600 | Timisoara |
| 40 | 20.6031600 | 46.0716300 | Sinnicolau Mare |

Table 10.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 3365 | 119 | 499.66 | 3365 | 116 | 174.74 | 3364 | 118 | 173.17 |
| 407500 | 9 | 149.24 | 737439 | 97 | 144.63 | 551716 | 64 | 135.69 |
| 542532 | 59 | 126.33 | 3363 | 117 | 114.91 | 57311 | 107 | 113.35 |
| 444127 | 24 | 111.94 | 751555 | 103 | 111.49 | 525323 | 49 | 111.16 |
| 530801 | 54 | 108.79 | 452452 | 27 | 105.08 | 611355 | 71 | 102.74 |
| 359257 | 5 | 102.56 | 557334 | 66 | 98.56 | 502141 | 33 | 97.01 |
| 608121 | 70 | 91.36 | 506422 | 35 | 90.54 | 1328 | 112 | 89.36 |
| 413838 | 12 | 87.53 | 655650 | 87 | 87.46 | 632229 | 78 | 82.51 |
| 347357 | 2 | 81.05 | 614740 | 73 | 79.85 | 66519 | 105 | 79.47 |
| 1317 | 114 | 78.31 | 642540 | 83 | 77.79 | 722657 | 96 | 77.03 |
| 1318 | 113 | 77.00 | 457600 | 30 | 76.44 | 710736 | 93 | 74.65 |
| 406421 | 8 | 73.53 | 709352 | 92 | 73.19 | 703156 | 90 | 73.01 |
| 523108 | 44 | 72.82 | 618518 | 75 | 72.35 | 509441 | 37 | 71.64 |
| 436447 | 19 | 70.50 | 741640 | 100 | 68.92 | 439534 | 21 | 68.08 |
| 748253 | 102 | 66.81 | 656621 | 89 | 66.80 | 444417 | 25 | 65.45 |
| 639744 | 82 | 65.28 | 425606 | 16 | 63.90 | 747356 | 101 | 63.89 |
| 632432 | 79 | 62.54 | 525215 | 48 | 61.82 | 509649 | 38 | 61.79 |
| 523530 | 46 | 61.17 | 539357 | 56 | 60.48 | 443639 | 23 | 60.25 |
| 430608 | 18 | 60.11 | 541154 | 57 | 60.02 | 546115 | 60 | 58.98 |
| 346452 | 1 | 57.18 | 352557 | 4 | 56.96 | 708430 | 91 | 56.31 |
| 711305 | 94 | 56.20 | 445718 | 26 | 55.57 | 401321 | 7 | 53.33 |
| 758355 | 104 | 53.33 | 509940 | 39 | 52.88 | 740330 | 99 | 51.90 |
| 656555 | 88 | 51.24 | 538416 | 55 | 50.93 | 606705 | 69 | 49.34 |
| 517507 | 43 | 48.99 | 614436 | 72 | 47.80 | 634322 | 80 | 47.71 |
| 501252 | 32 | 47.28 | 13295 | 111 | 46.72 | 441757 | 22 | 46.51 |
| 500432 | 31 | 45.49 | 655522 | 86 | 45.33 | 528518 | 52 | 44.45 |
| 646247 | 84 | 44.01 | 551459 | 62 | 43.55 | 511849 | 41 | 43.52 |
| 3363 | 115 | 42.94 | 525358 | 50 | 42.94 | 414352 | 13 | 41.82 |
| 553254 | 65 | 41.60 | 548409 | 61 | 40.96 | 428307 | 17 | 40.83 |
| 453344 | 28 | 40.49 | 714623 | 95 | 40.25 | 527527 | 51 | 38.72 |
| 617637 | 74 | 38.69 | 415816 | 14 | 38.30 | 515231 | 42 | 37.46 |
| 349835 | 3 | 36.88 | 511349 | 40 | 36.73 | 456526 | 29 | 36.45 |
| 551621 | 63 | 36.07 | 13174 | 110 | 35.99 | 502317 | 34 | 35.68 |
| 739615 | 98 | 35.18 | 604037 | 68 | 34.72 | 523703 | 47 | 33.39 |
| 622544 | 76 | 32.86 | 632130 | 77 | 32.68 | 600608 | 67 | 32.62 |
| 530535 | 53 | 32.08 | 635658 | 81 | 31.30 | 541601 | 58 | 30.22 |
| 647334 | 85 | 28.91 | 359521 | 6 | 28.04 | 417530 | 15 | 27.53 |
| 507158 | 36 | 27.27 | 412721 | 11 | 25.09 | 73302 | 108 | 24.62 |
| 438238 | 20 | 24.46 | 64704 | 106 | 23.85 | 523328 | 45 | 21.56 |
| 408800 | 10 | 21.20 | 58300 | 109 | 16.43 | | | |
| AVERAGE: | | 66.03 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|---------|--------|-------|---------|--------|-------|---------|
| 33634 | 115 | 2123.95 | 741640 | 100 | 1464.30 | 655650 | 87 | 1064.59 |
| 58300 | 109 | 970.02 | 457600 | 30 | 906.78 | 748253 | 102 | 885.87 |
| 73302 | 108 | 847.20 | 66519 | 105 | 833.67 | 608121 | 70 | 782.90 |
| 525323 | 49 | 705.09 | 346452 | 1 | 693.14 | 530801 | 54 | 686.19 |
| 413838 | 12 | 663.32 | 406421 | 8 | 651.55 | 407500 | 9 | 647.17 |
| 359257 | 5 | 615.31 | 539357 | 56 | 601.42 | 444127 | 24 | 583.49 |
| 13173 | 114 | 580.28 | 542532 | 59 | 575.13 | 509649 | 38 | 566.75 |
| 13174 | 110 | 552.98 | 614740 | 73 | 545.42 | 747356 | 101 | 531.87 |

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|-----------------------------|-----|---------------------------|--------|-------------------------|--------|--------------------|-----|--------|
| 452452 | 27 | 530.38 | 639744 | 82 | 530.08 | 347357 | 2 | 521.82 |
| 551716 | 64 | 517.32 | 13285 | 112 | 513.93 | 57311 | 107 | 503.21 |
| 614436 | 72 | 487.33 | 33638 | 117 | 482.39 | 13295 | 111 | 450.68 |
| 430608 | 18 | 425.73 | 758355 | 104 | 419.57 | 506422 | 35 | 417.26 |
| 33658 | 116 | 416.73 | 740330 | 99 | 399.22 | 456526 | 29 | 382.35 |
| 714623 | 95 | 377.10 | 415816 | 14 | 368.41 | 523108 | 44 | 347.88 |
| 453344 | 28 | 344.39 | 553254 | 65 | 334.34 | 525358 | 50 | 331.42 |
| 439534 | 21 | 290.32 | 606705 | 69 | 287.66 | 500432 | 31 | 285.98 |
| 33647 | 118 | 284.93 | 523530 | 46 | 280.61 | 751555 | 103 | 279.49 |
| 710736 | 93 | 279.47 | 611355 | 71 | 275.57 | 634322 | 80 | 275.15 |
| 509940 | 39 | 273.04 | 436447 | 19 | 269.67 | 64704 | 106 | 263.49 |
| 444417 | 25 | 252.95 | 548409 | 61 | 247.94 | 425606 | 16 | 244.54 |
| 443639 | 23 | 226.95 | 722657 | 96 | 226.56 | 445718 | 26 | 221.63 |
| 352557 | 4 | 218.88 | 635658 | 81 | 211.02 | 557334 | 66 | 210.71 |
| 632130 | 77 | 207.67 | 604037 | 68 | 200.64 | 600608 | 67 | 199.32 |
| 546115 | 60 | 188.00 | 739615 | 98 | 181.41 | 655522 | 86 | 173.35 |
| 517507 | 43 | 159.93 | 527527 | 51 | 158.71 | 642540 | 83 | 151.42 |
| 501252 | 32 | 141.80 | 622544 | 76 | 139.62 | 618518 | 75 | 134.30 |
| 708430 | 91 | 133.99 | 502141 | 33 | 124.71 | 709352 | 92 | 123.38 |
| 349835 | 3 | 122.52 | 737439 | 97 | 122.24 | 541154 | 57 | 116.74 |
| 525215 | 48 | 115.51 | 646247 | 84 | 115.29 | 632229 | 78 | 112.49 |
| 551621 | 63 | 111.25 | 502317 | 34 | 110.93 | 530535 | 53 | 110.48 |
| 703156 | 90 | 108.92 | 523328 | 45 | 106.73 | 509441 | 37 | 105.55 |
| 33657 | 119 | 104.75 | 515231 | 42 | 104.23 | 523703 | 47 | 100.25 |
| 551459 | 62 | 99.22 | 541601 | 58 | 99.16 | 13183 | 113 | 94.62 |
| 632432 | 79 | 94.14 | 511849 | 41 | 93.66 | 711305 | 94 | 93.19 |
| 401321 | 7 | 91.35 | 441757 | 22 | 89.26 | 511349 | 40 | 88.81 |
| 414352 | 13 | 88.58 | 656621 | 89 | 83.38 | 528518 | 52 | 74.38 |
| 617637 | 74 | 70.99 | 359521 | 6 | 67.88 | 538416 | 55 | 64.74 |
| 656555 | 88 | 62.23 | 438238 | 20 | 61.92 | 428307 | 17 | 60.92 |
| 417530 | 15 | 54.34 | 647334 | 85 | 48.94 | 507158 | 36 | 46.97 |
| 408800 | 10 | 46.03 | 412721 | 11 | 24.64 | | | |
| AVERAGE: | | 330.86 | | | | | | |

Table 10.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 57311 | 107 | 0.27 | 655522 | 86 | 0.30 | 33647 | 118 | 0.31 |
| 618518 | 75 | 0.32 | 359257 | 5 | 0.32 | 647334 | 85 | 0.33 |
| 73302 | 108 | 0.34 | 515231 | 42 | 0.36 | 33657 | 119 | 0.36 |
| 646247 | 84 | 0.38 | 656555 | 88 | 0.39 | 523328 | 45 | 0.40 |
| 632432 | 79 | 0.40 | 425606 | 16 | 0.41 | 66519 | 105 | 0.41 |
| 538416 | 55 | 0.41 | 739615 | 98 | 0.42 | 614436 | 72 | 0.43 |
| 506422 | 35 | 0.44 | 33638 | 117 | 0.44 | 502317 | 34 | 0.44 |
| 408800 | 10 | 0.45 | 430608 | 18 | 0.45 | 703156 | 90 | 0.45 |
| 415816 | 14 | 0.46 | 541601 | 58 | 0.47 | 507158 | 36 | 0.48 |
| 13174 | 110 | 0.48 | 551459 | 62 | 0.48 | 632229 | 78 | 0.49 |
| 632130 | 77 | 0.49 | 438238 | 20 | 0.50 | 525358 | 50 | 0.50 |
| 58300 | 109 | 0.50 | 352557 | 4 | 0.50 | 64704 | 106 | 0.50 |
| 758355 | 104 | 0.50 | 548409 | 61 | 0.51 | 747356 | 101 | 0.51 |
| 501252 | 32 | 0.51 | 347357 | 2 | 0.51 | 611355 | 71 | 0.51 |
| 13173 | 114 | 0.51 | 642540 | 83 | 0.52 | 622544 | 76 | 0.52 |
| 456526 | 29 | 0.52 | 525323 | 49 | 0.52 | 748253 | 102 | 0.52 |
| 453344 | 28 | 0.52 | 511849 | 41 | 0.53 | 656621 | 89 | 0.53 |
| 617637 | 74 | 0.53 | 457600 | 30 | 0.54 | 722657 | 96 | 0.54 |
| 708430 | 91 | 0.54 | 709352 | 92 | 0.54 | 557334 | 66 | 0.54 |
| 523108 | 44 | 0.55 | 634322 | 80 | 0.55 | 417530 | 15 | 0.55 |
| 509940 | 39 | 0.55 | 502141 | 33 | 0.55 | 541154 | 57 | 0.56 |
| 737439 | 97 | 0.56 | 509441 | 37 | 0.56 | 711305 | 94 | 0.56 |
| 553254 | 65 | 0.56 | 406421 | 8 | 0.56 | 346452 | 1 | 0.57 |
| 412721 | 11 | 0.57 | 439534 | 21 | 0.57 | 509649 | 38 | 0.57 |
| 401321 | 7 | 0.57 | 443639 | 23 | 0.57 | 511349 | 40 | 0.57 |

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|-----------------------------|-----|---------------------------|--------|-------------------------|------|--------------------|-----|------|
| 600608 | 67 | 0.57 | 655650 | 87 | 0.57 | 414352 | 13 | 0.58 |
| 441757 | 22 | 0.58 | 523703 | 47 | 0.58 | 525215 | 48 | 0.58 |
| 527527 | 51 | 0.59 | 500432 | 31 | 0.59 | 539357 | 56 | 0.60 |
| 13285 | 112 | 0.60 | 606705 | 69 | 0.61 | 428307 | 17 | 0.61 |
| 349835 | 3 | 0.61 | 740330 | 99 | 0.61 | 523530 | 46 | 0.61 |
| 13295 | 111 | 0.62 | 436447 | 19 | 0.62 | 528518 | 52 | 0.62 |
| 452452 | 27 | 0.62 | 13183 | 113 | 0.62 | 551716 | 64 | 0.62 |
| 542532 | 59 | 0.62 | 604037 | 68 | 0.63 | 33658 | 116 | 0.63 |
| 714623 | 95 | 0.63 | 546115 | 60 | 0.64 | 751555 | 103 | 0.64 |
| 551621 | 63 | 0.64 | 635658 | 81 | 0.65 | 517507 | 43 | 0.66 |
| 444127 | 24 | 0.66 | 445718 | 26 | 0.66 | 608121 | 70 | 0.67 |
| 741640 | 100 | 0.67 | 710736 | 93 | 0.67 | 413838 | 12 | 0.68 |
| 639744 | 82 | 0.68 | 33634 | 115 | 0.69 | 359521 | 6 | 0.70 |
| 444417 | 25 | 0.70 | 530535 | 53 | 0.71 | 614740 | 73 | 0.71 |
| 407500 | 9 | 0.74 | 530801 | 54 | 0.78 | | | |
| AVERAGE: | | 0.54 | | | | | | |

Table 10.3c Station parameters of the series system of Romania and near border series from Serbia, Hungary, Ukraine

| index | lambda(x) | phi(y) | h(m) | ST_ID | ST_NAME | Country |
|-------|-----------|-----------|------|--------|-------------------|---------|
| 1 | 24.879770 | 43.760420 | 25 | 346452 | TURNU MAGURELE | RO |
| 2 | 23.945686 | 43.790056 | 39 | 347357 | BECHET | RO |
| 3 | 28.588980 | 43.816470 | 1 | 349835 | MANGALIA | RO |
| 4 | 25.934221 | 43.875470 | 24 | 352557 | GIURGIU | RO |
| 5 | 22.947569 | 43.985246 | 61 | 359257 | CALAFAT | RO |
| 6 | 25.354370 | 43.978290 | 85 | 359521 | ALEXANDRIA | RO |
| 7 | 23.332620 | 44.029510 | 59 | 401321 | BAILESTI | RO |
| 8 | 24.358813 | 44.100444 | 105 | 406421 | CARACAL | RO |
| 9 | 24.980030 | 44.107740 | 111 | 407500 | ROSIORII DE VEDE | RO |
| 10 | 27.967130 | 44.088620 | 156 | 408800 | ADAMCLISI | RO |
| 11 | 27.339860 | 44.206430 | 22 | 412721 | CALARASI | RO |
| 12 | 28.646380 | 44.214090 | 13 | 413838 | CONSTANTA | RO |
| 13 | 23.868460 | 44.310600 | 192 | 414352 | CRAIOVA | RO |
| 14 | 28.252880 | 44.243560 | 67 | 415816 | MEDGIDIA | RO |
| 15 | 25.538540 | 44.283260 | 118 | 417530 | VIDELE | RO |
| 16 | 26.095322 | 44.412355 | 82 | 425606 | BUCURESTI FILARET | RO |
| 17 | 23.114580 | 44.476720 | 313 | 428307 | BICLES | RO |
| 18 | 26.079760 | 44.510820 | 90 | 430608 | BUCURESTI BANEASA | RO |
| 19 | 24.791530 | 44.562880 | 225 | 436447 | STOLNICI | RO |
| 20 | 22.627650 | 44.626730 | 77 | 438238 | DR.TR.SEVERIN | RO |
| 21 | 25.580740 | 44.653200 | 174 | 439534 | TITU | RO |
| 22 | 27.965080 | 44.692000 | 41 | 441757 | HIRSOVA | RO |
| 23 | 26.658560 | 44.721950 | 65 | 443639 | URZICENI | RO |
| 24 | 21.634610 | 44.722850 | 82 | 444127 | MOLDOVA VECE | RO |
| 25 | 24.238708 | 44.665755 | 275 | 444417 | DRAGASANI | RO |
| 26 | 27.295990 | 44.740960 | 51 | 445718 | GRIVITA | RO |
| 27 | 24.867460 | 44.849290 | 332 | 452452 | PITESTI | RO |
| 28 | 23.710236 | 44.878418 | 271 | 453344 | TG.LOGRESTI | RO |
| 29 | 25.427260 | 44.929910 | 285 | 456526 | TIRGOVISTE | RO |
| 30 | 25.988990 | 44.956090 | 172 | 457600 | PLOIESTI | RO |
| 31 | 24.571790 | 45.016290 | 550 | 500432 | DEDULESTI | RO |
| 32 | 22.861054 | 44.997136 | 260 | 501252 | PADES(APA NEAGRA) | RO |
| 33 | 21.711840 | 45.038960 | 309 | 502141 | ORAVITA | RO |
| 34 | 23.260882 | 45.040958 | 204 | 502317 | TG.JIU | RO |
| 35 | 24.380980 | 45.089190 | 242 | 506422 | RM. VILCEA | RO |
| 36 | 22.057120 | 45.181730 | 1432 | 507158 | SEMENIC | RO |
| 37 | 24.671280 | 45.179170 | 449 | 509441 | CURTEA DE ARGES | RO |
| 38 | 26.853000 | 45.132910 | 89 | 509649 | BUZAU | RO |
| 39 | 29.760449 | 45.148694 | 3 | 509940 | SULINA | RO |
| 40 | 23.810150 | 45.165870 | 525 | 511349 | POLOVRAGI | RO |
| 41 | 28.825690 | 45.190840 | 5 | 511849 | TULCEA | RO |
| 42 | 22.534340 | 45.281170 | 2180 | 515231 | TARCU | RO |
| 43 | 25.038140 | 45.275150 | 690 | 517507 | CIMPULUNG | RO |
| 44 | 21.137974 | 45.383051 | 83 | 523108 | BANLOC | RO |
| 45 | 23.464622 | 45.387686 | 1559 | 523328 | PARING | RO |
| 46 | 25.515713 | 45.355256 | 1510 | 523530 | SINAIA(1500) | RO |
| 47 | 27.040160 | 45.390750 | 155 | 523703 | RM. SARAT | RO |
| 48 | 22.226840 | 45.417560 | 241 | 525215 | CARANSEBES | RO |

| | | | | | | |
|-----|-----------|-----------|------|--------|-------------------------------|----|
| 49 | 23.378254 | 45.406610 | 607 | 525323 | PETROSANI | RO |
| 50 | 23.968553 | 45.411503 | 573 | 525358 | VOINEASA | RO |
| 51 | 25.458260 | 45.446140 | 2506 | 527527 | VF. OMU | RO |
| 52 | 25.273270 | 45.431910 | 1376 | 528518 | FUNDATA | RO |
| 53 | 25.585100 | 45.506460 | 1096 | 530535 | PREDEAL | RO |
| 54 | 28.033930 | 45.473300 | 71 | 530801 | GALATI | RO |
| 55 | 24.273180 | 45.653180 | 523 | 538416 | BOITA | RO |
| 56 | 23.934000 | 45.657510 | 1462 | 539357 | PALTINIS | RO |
| 57 | 21.934630 | 45.686730 | 168 | 541154 | LUGOJ | RO |
| 58 | 26.058304 | 45.668545 | 707 | 541601 | INT.BUZAULUI | RO |
| 59 | 25.527720 | 45.696130 | 535 | 542532 | BRASOV | RO |
| 60 | 21.259360 | 45.771460 | 86 | 546115 | TIMISOARA | RO |
| 61 | 24.092940 | 45.789700 | 453 | 548409 | SIBIU | RO |
| 62 | 24.936720 | 45.836360 | 435 | 551459 | FAGARAS | RO |
| 63 | 26.377080 | 45.824010 | 1778 | 551621 | LACAUTI | RO |
| 64 | 27.410360 | 45.841950 | 57 | 551716 | TECUCI | RO |
| 65 | 22.900460 | 45.865040 | 230 | 553254 | DEVA | RO |
| 66 | 23.543090 | 45.964530 | 267 | 557334 | SEBES-ALBA | RO |
| 67 | 26.116870 | 45.993240 | 571 | 600608 | TG.SECUIESC | RO |
| 68 | 20.603163 | 46.071633 | 85 | 604037 | SINNICOLU MARE | RO |
| 69 | 27.171810 | 46.105020 | 101 | 606705 | ADJUD | RO |
| 70 | 21.355219 | 46.133851 | 117 | 608121 | ARAD | RO |
| 71 | 23.936770 | 46.178820 | 342 | 611355 | BLAJ | RO |
| 72 | 24.593180 | 46.228250 | 323 | 614436 | DUMBRAVENI | RO |
| 73 | 27.645580 | 46.231360 | 168 | 614740 | BIRLAD | RO |
| 74 | 26.642590 | 46.272960 | 245 | 617637 | TG. OCNA | RO |
| 75 | 25.293340 | 46.297090 | 532 | 618518 | ODORHEIUL SECUIESC | RO |
| 76 | 25.774170 | 46.371580 | 667 | 622544 | MIERCUREA CIUC | RO |
| 77 | 21.543000 | 46.518940 | 96 | 632130 | CHISINEU CRIS | RO |
| 78 | 22.468092 | 46.528317 | 278 | 632229 | STEI | RO |
| 79 | 24.535330 | 46.533680 | 317 | 632432 | TG.MURES | RO |
| 80 | 23.311820 | 46.535770 | 1357 | 634322 | BAISOARA | RO |
| 81 | 26.914070 | 46.532150 | 183 | 635658 | BACAU | RO |
| 82 | 27.715830 | 46.646240 | 121 | 639744 | VASLUI | RO |
| 83 | 25.514170 | 46.706080 | 747 | 642540 | JOSENI | RO |
| 84 | 22.795790 | 46.759560 | 1840 | 646247 | VLADEASA 1800 | RO |
| 85 | 23.572990 | 46.777990 | 417 | 647334 | CLUJ-NAPOCA | RO |
| 86 | 25.361530 | 46.926640 | 690 | 655522 | TOPLITA | RO |
| 87 | 26.913390 | 46.969460 | 218 | 655650 | ROMAN | RO |
| 88 | 25.951510 | 46.977760 | 1897 | 656555 | CEAHLAU TOACA | RO |
| 89 | 26.390900 | 46.934020 | 360 | 656621 | PIATRA NEAMT | RO |
| 90 | 21.897545 | 47.036020 | 136 | 703156 | ORADEA | RO |
| 91 | 24.515450 | 47.149420 | 374 | 708430 | BISTRITA | RO |
| 92 | 23.900500 | 47.128260 | 240 | 709352 | DEJ | RO |
| 93 | 27.630080 | 47.171060 | 103 | 710736 | IASI | RO |
| 94 | 23.048360 | 47.195280 | 303 | 711305 | ZALAU | RO |
| 95 | 26.380590 | 47.212430 | 385 | 714623 | TG. NEAMT | RO |
| 96 | 26.927410 | 47.358670 | 289 | 722657 | COTNARI | RO |
| 97 | 24.650730 | 47.602830 | 1792 | 737439 | IEZER | RO |
| 98 | 26.241960 | 47.633280 | 366 | 739615 | SUCEAVA | RO |
| 99 | 23.493240 | 47.661210 | 224 | 740330 | BAIA-MARE | RO |
| 100 | 26.647040 | 47.736050 | 160 | 741640 | BOTOSANI | RO |
| 101 | 23.942140 | 47.777370 | 508 | 747356 | OC.SUGATAG | RO |
| 102 | 22.888782 | 47.721768 | 128 | 748253 | SATU MARE | RO |
| 103 | 25.891850 | 47.838010 | 387 | 751555 | RADAUTI | RO |
| 104 | 23.905880 | 47.939570 | 283 | 758355 | SIGHETUL MARMATIEI | RO |
| 105 | 21.160556 | 46.679444 | | 66519 | Békéscsaba Békés Airport | HU |
| 106 | 21.610833 | 47.490278 | | 64704 | Debrecen Repül?tér | HU |
| 107 | 20.687500 | 46.544167 | | 57311 | Orosháza Szivattyútelep | HU |
| 108 | 22.625556 | 47.862222 | | 73302 | Pátyod magántelek | HU |
| 109 | 20.736667 | 46.317222 | | 58300 | Pitvaros Polgármesteri Hivata | HU |
| 110 | 20.464640 | 45.842634 | | 13174 | KIKINDA | SR |
| 111 | 22.536340 | 44.239157 | | 13295 | NEGOTIN | SR |
| 112 | 21.498430 | 44.752614 | | 13285 | VELIKO GRADISTE | SR |
| 113 | 21.305524 | 45.144137 | | 13183 | VRSAC-kontrolisanoJasna | SR |
| 114 | 20.376008 | 45.398724 | | 13173 | ZRENJANIN | SR |
| 115 | 22.650000 | 48.200000 | | 33634 | Beregove | UA |
| 116 | 25.972500 | 48.266389 | | 33658 | Chernivtsi | UA |
| 117 | 23.300000 | 48.183330 | | 33638 | Khust | UA |
| 118 | 24.198056 | 48.047500 | | 33647 | Rakhiv | UA |
| 119 | 25.216667 | 47.883333 | | 33657 | Seliatyn | UA |

Table 10.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 40 | 40 | 143.04 | 35 | 35 | 93.67 | 42 | 42 | 84.52 |
| 41 | 41 | 83.36 | 51 | 51 | 80.27 | 36 | 36 | 75.94 |
| 53 | 53 | 74.09 | 4 | 4 | 73.29 | 52 | 52 | 66.18 |
| 20 | 20 | 55.69 | 48 | 48 | 53.37 | 12 | 12 | 52.14 |
| 47 | 47 | 50.65 | 50 | 50 | 46.95 | 6 | 6 | 45.63 |
| 38 | 38 | 43.08 | 43 | 43 | 40.63 | 9 | 9 | 38.50 |
| 31 | 31 | 35.52 | 32 | 32 | 33.03 | 13 | 13 | 32.70 |
| 49 | 49 | 32.43 | 2 | 2 | 28.89 | 1 | 1 | 28.88 |
| 44 | 44 | 28.06 | 46 | 46 | 26.87 | 18 | 18 | 26.80 |
| 30 | 30 | 26.46 | 24 | 24 | 25.35 | 10 | 10 | 24.65 |
| 28 | 28 | 24.35 | 5 | 5 | 23.81 | 37 | 37 | 22.74 |
| 14 | 14 | 22.51 | 26 | 26 | 21.80 | 29 | 29 | 21.33 |
| 8 | 8 | 21.20 | 3 | 3 | 20.67 | 39 | 39 | 20.26 |
| 23 | 23 | 20.22 | 22 | 22 | 19.31 | 17 | 17 | 19.03 |
| 19 | 19 | 18.87 | 25 | 25 | 18.73 | 21 | 21 | 18.71 |
| 27 | 27 | 18.37 | 33 | 33 | 18.36 | 7 | 7 | 17.90 |
| 16 | 16 | 15.56 | 15 | 15 | 15.23 | 34 | 34 | 15.03 |
| 45 | 45 | 14.98 | 11 | 11 | 13.22 | | | |
| AVERAGE: | | 37.60 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| 35 | 35 | 2114.32 | 46 | 46 | 2079.08 | 11 | 11 | 1248.00 |
| 1 | 1 | 1145.63 | 50 | 50 | 914.32 | 47 | 47 | 875.79 |
| 15 | 15 | 687.45 | 28 | 28 | 683.29 | 8 | 8 | 627.10 |
| 52 | 52 | 576.54 | 51 | 51 | 558.96 | 45 | 45 | 552.06 |
| 10 | 10 | 475.61 | 7 | 7 | 403.05 | 18 | 18 | 402.87 |
| 30 | 30 | 375.64 | 40 | 40 | 370.53 | 34 | 34 | 361.07 |
| 31 | 31 | 358.49 | 3 | 3 | 351.15 | 27 | 27 | 345.27 |
| 23 | 23 | 332.79 | 32 | 32 | 325.34 | 53 | 53 | 315.39 |
| 38 | 38 | 307.83 | 48 | 48 | 295.02 | 17 | 17 | 289.38 |
| 5 | 5 | 273.97 | 42 | 42 | 263.15 | 21 | 21 | 253.03 |
| 6 | 6 | 239.96 | 36 | 36 | 234.48 | 33 | 33 | 221.94 |
| 22 | 22 | 220.91 | 29 | 29 | 217.89 | 16 | 16 | 182.18 |
| 39 | 39 | 180.86 | 49 | 49 | 177.82 | 19 | 19 | 170.93 |
| 12 | 12 | 168.70 | 25 | 25 | 163.50 | 20 | 20 | 162.49 |
| 2 | 2 | 149.35 | 43 | 43 | 147.89 | 13 | 13 | 137.09 |
| 26 | 26 | 118.61 | 9 | 9 | 106.16 | 14 | 14 | 104.84 |
| 24 | 24 | 99.80 | 41 | 41 | 97.71 | 4 | 4 | 94.93 |
| 44 | 44 | 41.24 | 37 | 37 | 27.55 | | | |
| AVERAGE: | | 408.09 | | | | | | |

Table 10.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 47 | 47 | 0.30 | 38 | 38 | 0.31 | 44 | 44 | 0.36 |
| 37 | 37 | 0.39 | 31 | 31 | 0.40 | 43 | 43 | 0.40 |
| 45 | 45 | 0.41 | 26 | 26 | 0.42 | 32 | 32 | 0.42 |
| 40 | 40 | 0.43 | 16 | 16 | 0.46 | 46 | 46 | 0.46 |
| 42 | 42 | 0.48 | 48 | 48 | 0.50 | 50 | 50 | 0.50 |
| 21 | 21 | 0.50 | 41 | 41 | 0.51 | 17 | 17 | 0.52 |
| 51 | 51 | 0.53 | 36 | 36 | 0.55 | 52 | 52 | 0.55 |
| 35 | 35 | 0.56 | 18 | 18 | 0.56 | 28 | 28 | 0.56 |
| 4 | 4 | 0.58 | 14 | 14 | 0.58 | 53 | 53 | 0.58 |
| 23 | 23 | 0.58 | 30 | 30 | 0.59 | 39 | 39 | 0.59 |
| 10 | 10 | 0.59 | 24 | 24 | 0.59 | 25 | 25 | 0.60 |
| 33 | 33 | 0.61 | 29 | 29 | 0.63 | 49 | 49 | 0.64 |
| 15 | 15 | 0.64 | 22 | 22 | 0.67 | 20 | 20 | 0.67 |
| 6 | 6 | 0.67 | 19 | 19 | 0.68 | 27 | 27 | 0.69 |
| 9 | 9 | 0.69 | 8 | 8 | 0.72 | 12 | 12 | 0.72 |
| 1 | 1 | 0.72 | 7 | 7 | 0.72 | 2 | 2 | 0.72 |
| 3 | 3 | 0.73 | 13 | 13 | 0.74 | 11 | 11 | 0.74 |
| 5 | 5 | 0.75 | 34 | 34 | 0.77 | | | |
| AVERAGE: | | 0.57 | | | | | | |

The Stations are the same as at Table 1.4c

Table 10.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11946 | 17 | 158.89 | 650 | 36 | 135.90 | 11866 | 6 | 122.49 |
| 600 | 34 | 95.69 | 11874 | 9 | 95.67 | 6809 | 47 | 90.89 |
| 6507 | 39 | 87.13 | 33517 | 25 | 81.86 | 11968 | 19 | 79.84 |
| 11774 | 48 | 78.49 | 23201 | 32 | 75.36 | 6618 | 43 | 69.56 |
| 6513 | 40 | 64.92 | 44121 | 28 | 61.42 | 53101 | 31 | 58.45 |
| 11782 | 53 | 57.94 | 23703 | 29 | 55.22 | 6702 | 45 | 53.62 |
| 11876 | 10 | 53.19 | 660 | 37 | 52.63 | 11938 | 16 | 51.33 |
| 11806 | 2 | 49.68 | 11787 | 52 | 49.29 | 11803 | 1 | 48.10 |
| 11977 | 20 | 46.85 | 33634 | 27 | 45.44 | 11779 | 49 | 42.92 |
| 6707 | 46 | 42.40 | 11903 | 12 | 39.94 | 11819 | 4 | 39.94 |
| 11910 | 13 | 38.49 | 690 | 38 | 38.33 | 61709 | 33 | 36.20 |
| 11867 | 7 | 35.41 | 11868 | 8 | 34.42 | 625 | 35 | 34.33 |
| 11961 | 18 | 32.82 | 6605 | 42 | 32.13 | 11927 | 14 | 31.53 |
| 11902 | 11 | 29.69 | 6628 | 44 | 29.36 | 11993 | 22 | 27.96 |
| 11978 | 21 | 27.06 | 11813 | 3 | 25.59 | 33631 | 26 | 25.10 |
| 11785 | 51 | 24.96 | 11858 | 5 | 23.98 | 51705 | 30 | 23.93 |
| 11766 | 50 | 20.61 | 33511 | 23 | 18.92 | 6518 | 41 | 18.85 |
| 33514 | 24 | 16.25 | 11931 | 15 | 8.30 | | | |
| AVERAGE: | | 51.31 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| 6618 | 43 | 2697.62 | 11779 | 49 | 1903.54 | 11819 | 4 | 1589.51 |
| 11946 | 17 | 1381.51 | 33634 | 27 | 1055.22 | 23201 | 32 | 953.89 |
| 23703 | 29 | 716.78 | 11968 | 19 | 645.63 | 6513 | 40 | 592.14 |
| 44121 | 28 | 526.71 | 11868 | 8 | 452.89 | 11858 | 5 | 432.33 |
| 33514 | 24 | 357.91 | 33511 | 23 | 352.09 | 11774 | 48 | 346.56 |
| 6707 | 46 | 345.04 | 11910 | 13 | 344.73 | 660 | 37 | 328.81 |
| 61709 | 33 | 310.97 | 650 | 36 | 289.18 | 53101 | 31 | 287.92 |
| 11766 | 50 | 278.25 | 11977 | 20 | 265.51 | 11787 | 52 | 241.35 |
| 6628 | 44 | 239.93 | 51705 | 30 | 221.88 | 11866 | 6 | 196.77 |
| 11961 | 18 | 183.44 | 11867 | 7 | 181.80 | 6507 | 39 | 181.12 |
| 33631 | 26 | 171.43 | 11876 | 10 | 171.00 | 6605 | 42 | 163.49 |
| 11874 | 9 | 157.34 | 6702 | 45 | 142.52 | 6809 | 47 | 139.15 |
| 11782 | 53 | 138.53 | 11902 | 11 | 132.92 | 690 | 38 | 131.27 |
| 11785 | 51 | 105.86 | 11806 | 2 | 98.86 | 11813 | 3 | 96.23 |
| 6518 | 41 | 89.52 | 625 | 35 | 76.24 | 11927 | 14 | 69.70 |
| 11803 | 1 | 64.16 | 11903 | 12 | 60.36 | 11993 | 22 | 57.22 |
| 11938 | 16 | 54.47 | 33517 | 25 | 51.10 | 11978 | 21 | 47.08 |
| 600 | 34 | 37.97 | 11931 | 15 | 31.37 | | | |
| AVERAGE: | | 380.92 | | | | | | |

Table 10.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|--------|-------|------|--------|-------|------|--------|-------|------|
| 11938 | 16 | 0.01 | 11867 | 7 | 0.18 | 11813 | 3 | 0.20 |
| 11931 | 15 | 0.21 | 11927 | 14 | 0.24 | 11902 | 11 | 0.24 |
| 11961 | 18 | 0.29 | 625 | 35 | 0.29 | 11993 | 22 | 0.30 |
| 11803 | 1 | 0.30 | 11806 | 2 | 0.32 | 11766 | 50 | 0.32 |

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|-----------------------------|----|---------------------------|-------|----|-------------------------|-------|--------------------|------|
| 11785 | 51 | 0.33 | 11910 | 13 | 0.33 | 23201 | 32 | 0.33 |
| 11876 | 10 | 0.34 | 11779 | 49 | 0.35 | 6618 | 43 | 0.36 |
| 11978 | 21 | 0.39 | 6605 | 42 | 0.39 | 11787 | 52 | 0.39 |
| 660 | 37 | 0.40 | 11858 | 5 | 0.40 | 6809 | 47 | 0.40 |
| 6707 | 46 | 0.43 | 11903 | 12 | 0.43 | 61709 | 33 | 0.44 |
| 51705 | 30 | 0.45 | 11774 | 48 | 0.45 | 11819 | 4 | 0.46 |
| 6518 | 41 | 0.47 | 650 | 36 | 0.47 | 11874 | 9 | 0.47 |
| 11977 | 20 | 0.48 | 11782 | 53 | 0.48 | 6513 | 40 | 0.48 |
| 600 | 34 | 0.48 | 23703 | 29 | 0.49 | 33511 | 23 | 0.50 |
| 33514 | 24 | 0.50 | 11868 | 8 | 0.51 | 11866 | 6 | 0.51 |
| 53101 | 31 | 0.51 | 44121 | 28 | 0.54 | 11946 | 17 | 0.54 |
| 33634 | 27 | 0.54 | 6628 | 44 | 0.54 | 690 | 38 | 0.57 |
| 6507 | 39 | 0.60 | 6702 | 45 | 0.61 | 11968 | 19 | 0.63 |
| 33517 | 25 | 0.64 | 33631 | 26 | 0.64 | | | |
| AVERAGE: | | 0.42 | | | | | | |

Table 10.5c Station parameters of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

| | | | | |
|----|-------------|-------------|--------|-------|
| 1 | 18.02916667 | 48.89694449 | 209.0 | 11803 |
| 2 | 17.57805559 | 48.75055559 | 409.0 | 11806 |
| 3 | 17.11055556 | 48.16861112 | 287.0 | 11813 |
| 4 | 17.68055559 | 48.49194447 | 178.0 | 11819 |
| 5 | 18.19416668 | 47.87305560 | 115.0 | 11858 |
| 6 | 18.77527782 | 49.43916669 | 423.0 | 11866 |
| 7 | 18.59388892 | 48.76972226 | 260.0 | 11867 |
| 8 | 19.18305556 | 49.36833335 | 780.0 | 11868 |
| 9 | 19.72527782 | 49.03916667 | 640.0 | 11874 |
| 10 | 19.91055560 | 49.14000001 | 972.0 | 11876 |
| 11 | 19.09388889 | 48.31916668 | 355.0 | 11902 |
| 12 | 19.14194445 | 48.64250003 | 313.0 | 11903 |
| 13 | 19.64666670 | 48.64444448 | 1015.0 | 11910 |
| 14 | 19.66666670 | 48.32916668 | 187.0 | 11927 |
| 15 | 20.23583335 | 49.18944445 | 1778.0 | 11931 |
| 16 | 20.18916668 | 48.84861115 | 901.0 | 11938 |
| 17 | 20.80138893 | 48.71666670 | 575.0 | 11946 |
| 18 | 20.84583338 | 49.25972224 | 485.0 | 11961 |
| 19 | 21.22250001 | 48.67222226 | 230.0 | 11968 |
| 20 | 21.91388894 | 49.25333335 | 305.0 | 11977 |
| 21 | 21.73472226 | 48.66805559 | 104.0 | 11978 |
| 22 | 22.00611111 | 48.93888894 | 176.0 | 11993 |
| 23 | 22.60000003 | 48.20000001 | 113.0 | 33634 |
| 24 | 23.00000000 | 49.20000001 | 594.0 | 33511 |
| 25 | 22.30000002 | 48.60000003 | 115.0 | 33631 |
| 26 | 22.50000003 | 48.90000005 | 205.0 | 33514 |
| 27 | 23.10000001 | 48.76666671 | 496.0 | 33517 |
| 28 | 19.02810000 | 47.51110000 | 153.3 | 44121 |
| 29 | 17.67470000 | 47.71000000 | 116.7 | 23703 |
| 30 | 20.53610000 | 48.49530000 | 308.9 | 51705 |
| 31 | 20.01670000 | 47.86670000 | 111.3 | 53101 |
| 32 | 17.26720000 | 47.88970000 | 121.0 | 23201 |
| 33 | 21.65890000 | 48.38080000 | 100.4 | 61709 |
| 34 | 19.00111111 | 49.80805560 | 398.0 | 600 |
| 35 | 19.96027783 | 49.29388890 | 855.0 | 625 |
| 36 | 19.98194450 | 49.23250001 | 1991.0 | 650 |
| 37 | 20.68916670 | 49.62722225 | 292.0 | 660 |
| 38 | 22.34166668 | 49.46638891 | 420.0 | 690 |
| 39 | 19.68805559 | 49.72583337 | 360.0 | 6507 |
| 40 | 19.51888892 | 49.61166670 | 697.0 | 6513 |
| 41 | 19.69583337 | 49.47194447 | 615.0 | 6518 |
| 42 | 20.41833336 | 49.69361115 | 515.0 | 6605 |
| 43 | 20.43166669 | 49.44555558 | 445.0 | 6618 |
| 44 | 20.88638894 | 49.34972224 | 445.0 | 6628 |
| 45 | 21.29583335 | 49.73527782 | 285.0 | 6702 |
| 46 | 21.17250001 | 49.43805558 | 519.0 | 6707 |
| 47 | 22.06333334 | 49.33916668 | 470.0 | 6809 |
| 48 | 17.56972225 | 49.32055557 | 222.0 | 11774 |
| 49 | 17.70777781 | 48.90277782 | 383.0 | 11779 |
| 50 | 17.54194447 | 49.77722226 | 749.0 | 11766 |
| 51 | 18.24055557 | 49.54111114 | 436.0 | 11785 |
| 52 | 18.44777780 | 49.54611114 | 1322.0 | 11787 |
| 53 | 18.12166667 | 49.69833337 | 250.0 | 11782 |

Table 10.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| lstrn | 29 | 104.31 | 05511 | 12 | 103.03 | 11961 | 40 | 99.41 |
| 06707 | 20 | 91.71 | 06513 | 14 | 80.06 | 33392 | 23 | 75.31 |
| lhole | 28 | 67.42 | 06809 | 21 | 67.07 | 06605 | 16 | 60.76 |
| 33287 | 22 | 60.13 | 06507 | 13 | 57.39 | 11868 | 35 | 53.86 |
| 00600 | 5 | 53.60 | 11938 | 39 | 53.47 | 00625 | 6 | 52.64 |
| 00690 | 9 | 51.80 | llysa | 32 | 50.93 | 11876 | 37 | 50.30 |
| 11866 | 34 | 47.51 | 06618 | 17 | 46.40 | 11977 | 41 | 46.26 |
| 00566 | 2 | 43.25 | lmosn | 33 | 42.70 | 00580 | 4 | 42.17 |
| 00660 | 8 | 41.01 | 06702 | 19 | 40.69 | 05508 | 11 | 40.21 |
| 11874 | 36 | 38.12 | 33514 | 27 | 34.42 | 00650 | 7 | 33.90 |
| 33398 | 25 | 29.85 | 00540 | 1 | 28.34 | 05409 | 10 | 28.16 |
| 33511 | 26 | 25.32 | 00575 | 3 | 24.05 | lfren | 31 | 23.74 |
| 06628 | 18 | 22.16 | 33391 | 24 | 22.15 | 11993 | 42 | 20.79 |
| 06518 | 15 | 19.35 | lcerv | 30 | 16.78 | 11931 | 38 | 11.10 |
| AVERAGE: | | 47.66 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|--------|
| 06618 | 17 | 3473.62 | 00540 | 1 | 1307.98 | lstrn | 29 | 729.83 |
| 06513 | 14 | 592.14 | 33391 | 24 | 567.87 | 11868 | 35 | 445.99 |
| 11866 | 34 | 406.48 | 33511 | 26 | 399.93 | 06628 | 18 | 349.96 |
| 06702 | 19 | 346.44 | 11993 | 42 | 346.24 | 06707 | 20 | 320.57 |
| 33514 | 27 | 299.08 | 33392 | 23 | 294.72 | 00650 | 7 | 291.60 |
| lcerv | 30 | 278.08 | 00660 | 8 | 261.33 | llysa | 32 | 241.05 |
| lhole | 28 | 239.80 | lmosn | 33 | 230.80 | 00580 | 4 | 226.43 |
| 11876 | 37 | 219.51 | 06605 | 16 | 215.64 | 11874 | 36 | 181.83 |
| 00690 | 9 | 175.57 | 11961 | 40 | 173.69 | 06507 | 13 | 163.93 |
| 00566 | 2 | 138.86 | 05508 | 11 | 138.79 | 11977 | 41 | 122.61 |
| 05511 | 12 | 110.49 | lfren | 31 | 106.07 | 06809 | 21 | 102.32 |
| 00625 | 6 | 82.69 | 06518 | 15 | 81.91 | 00575 | 3 | 76.21 |
| 33398 | 25 | 67.61 | 11938 | 39 | 60.43 | 33287 | 22 | 59.76 |
| 11931 | 38 | 31.37 | 00600 | 5 | 30.05 | 05409 | 10 | 19.76 |
| AVERAGE: | | 333.55 | | | | | | |

Table 1.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11938 | 39 | 0.19 | 11931 | 38 | 0.22 | 00540 | 1 | 0.23 |
| 00566 | 2 | 0.24 | 00625 | 6 | 0.26 | 11874 | 36 | 0.30 |
| 11993 | 42 | 0.31 | 11866 | 34 | 0.31 | 11961 | 40 | 0.32 |
| 06628 | 18 | 0.32 | 05508 | 11 | 0.33 | lfren | 31 | 0.33 |
| lstrn | 29 | 0.34 | lcerv | 30 | 0.34 | 00650 | 7 | 0.35 |
| 05409 | 10 | 0.35 | 06618 | 17 | 0.36 | 06809 | 21 | 0.38 |
| llysa | 32 | 0.38 | 11876 | 37 | 0.39 | lhole | 28 | 0.40 |
| 00600 | 5 | 0.41 | 00575 | 3 | 0.42 | 00660 | 8 | 0.43 |
| 06605 | 16 | 0.45 | 05511 | 12 | 0.45 | 33514 | 27 | 0.46 |
| 06513 | 14 | 0.47 | 06518 | 15 | 0.47 | 11977 | 41 | 0.48 |
| 06702 | 19 | 0.50 | 11868 | 35 | 0.50 | 00580 | 4 | 0.51 |
| lmosn | 33 | 0.53 | 00690 | 9 | 0.53 | 06707 | 20 | 0.57 |
| 06507 | 13 | 0.57 | 33391 | 24 | 0.59 | 33398 | 25 | 0.60 |
| 33511 | 26 | 0.61 | 33287 | 22 | 0.68 | 33392 | 23 | 0.68 |
| AVERAGE: | | 0.42 | | | | | | |

Table 10.6c Station parameters of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

| index | lambda(x) | fi(y) | h | stno | stna | country |
|-------|-------------|-------------|--------|-------|------------------------|---------|
| 1 | 18.19166668 | 50.06166667 | 206.0 | 00540 | raciborz-studzienna | PL |
| 2 | 19.80194449 | 50.07194445 | 237.0 | 00566 | krakow-balice | PL |
| 3 | 20.98444450 | 50.01888889 | 209.0 | 00575 | tarnow | PL |
| 4 | 22.02916667 | 50.11527778 | 212.0 | 00580 | rzeszow-jasionka | PL |
| 5 | 19.00111111 | 49.80805560 | 398.0 | 00600 | bielsko-biala | PL |
| 6 | 19.96027783 | 49.29388890 | 855.0 | 00625 | zakopane | PL |
| 7 | 19.98194450 | 49.23250001 | 1991.0 | 00650 | kasprowy wierch | PL |
| 8 | 20.68916670 | 49.62722225 | 292.0 | 00660 | nowy_sacz | PL |
| 9 | 22.34166668 | 49.46638891 | 420.0 | 00690 | lesko | PL |
| 10 | 18.92027783 | 49.99638894 | 270.0 | 05409 | pszczyzna | PL |
| 11 | 19.09527778 | 50.08500000 | 255.0 | 05508 | bierun_stary | PL |
| 12 | 19.95861116 | 50.06416667 | 206.0 | 05511 | krakow-observatorium | PL |
| 13 | 19.68805559 | 49.72583337 | 360.0 | 06507 | makow_podchalanski | PL |
| 14 | 19.51888892 | 49.61166670 | 697.0 | 06513 | zawoja | PL |
| 15 | 19.69583337 | 49.47194447 | 615.0 | 06518 | jablonka | PL |
| 16 | 20.41833336 | 49.69361115 | 515.0 | 06605 | limanowa | PL |
| 17 | 20.43166669 | 49.44555558 | 445.0 | 06618 | kroscienko | PL |
| 18 | 20.88638894 | 49.34972224 | 445.0 | 06628 | muszyna | PL |
| 19 | 21.29583335 | 49.73527782 | 285.0 | 06702 | biecz-grudna | PL |
| 20 | 21.17250001 | 49.43805558 | 519.0 | 06707 | wysowa | PL |
| 21 | 22.06333334 | 49.33916668 | 470.0 | 06809 | komancza | PL |
| 22 | 23.63333337 | 50.25000001 | 252.0 | 33287 | Rava-Ruska | UA |
| 23 | 23.38333335 | 49.95000005 | 245.0 | 33392 | Yavoriv | UA |
| 24 | 23.16666668 | 49.80000004 | 232.0 | 33391 | Mostyska | UA |
| 25 | 23.56694447 | 49.36222224 | 275.0 | 33398 | Drohobych | UA |
| 26 | 23.03333334 | 49.15000001 | 594.0 | 33511 | Turka | UA |
| 27 | 22.46666669 | 48.90000005 | 205.0 | 33514 | Velyky_Berezny | UA |
| 28 | 17.57000003 | 49.32000002 | 222.0 | 1hole | Holesov | CZ |
| 29 | 17.71000004 | 48.90000005 | 383.0 | 1strn | Strani | CZ |
| 30 | 17.54000003 | 49.78000004 | 749.0 | 1cerv | Cervena | CZ |
| 31 | 18.24000001 | 49.54000003 | 436.0 | 1fren | Frenstat_pod_Radhostem | CZ |
| 32 | 18.45000002 | 49.55000003 | 1322.0 | 1lysa | Lysa_Hora | CZ |
| 33 | 18.12000001 | 49.70000004 | 250.0 | 1mosn | Mosnov | CZ |
| 34 | 18.77527782 | 49.43916669 | 423.0 | 11866 | sk-11866 | SK |
| 35 | 19.18305556 | 49.36833335 | 780.0 | 11868 | sk-11868 | SK |
| 36 | 19.72527782 | 49.03916667 | 640.0 | 11874 | sk-11874 | SK |
| 37 | 19.91055560 | 49.14000001 | 972.0 | 11876 | sk-11876 | SK |
| 38 | 20.23583335 | 49.18944445 | 1778.0 | 11931 | sk-11931 | SK |
| 39 | 20.18916668 | 48.84861115 | 901.0 | 11938 | sk-11938 | SK |
| 40 | 20.84583338 | 49.25972224 | 485.0 | 11961 | sk-11961 | SK |
| 41 | 21.91388894 | 49.25333335 | 305.0 | 11977 | sk-11977 | SK |
| 42 | 22.00611111 | 48.93888894 | 176.0 | 11993 | sk-11993 | SK |

Table 10.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 12 | 12 | 122.49 | 1 | 1 | 78.49 | 7 | 7 | 78.39 |
| 6 | 6 | 67.86 | 16 | 16 | 67.42 | 14 | 14 | 60.26 |
| 15 | 15 | 55.48 | 8 | 8 | 49.64 | 2 | 2 | 42.92 |
| 5 | 5 | 41.55 | 11 | 11 | 40.61 | 10 | 10 | 39.94 |
| 17 | 17 | 26.08 | 4 | 4 | 22.97 | 3 | 3 | 20.38 |
| 9 | 9 | 19.69 | 13 | 13 | 17.93 | | | |
| AVERAGE: | | 50.12 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|---------|
| 2 | 2 | 1917.55 | 10 | 10 | 1609.86 | 15 | 15 | 1305.92 |
| 11 | 11 | 786.22 | 14 | 14 | 360.49 | 1 | 1 | 348.15 |
| 3 | 3 | 278.14 | 12 | 12 | 276.16 | 5 | 5 | 238.46 |
| 6 | 6 | 168.90 | 17 | 17 | 166.83 | 7 | 7 | 132.22 |
| 8 | 8 | 113.19 | 4 | 4 | 106.07 | 16 | 16 | 95.58 |
| 9 | 9 | 40.88 | 13 | 13 | 36.74 | | | |
| AVERAGE: | | 469.49 | | | | | | |

Table 10.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 15 | 15 | 0.19 | 9 | 9 | 0.20 | 13 | 13 | 0.21 |
| 11 | 11 | 0.24 | 7 | 7 | 0.30 | 8 | 8 | 0.32 |
| 17 | 17 | 0.32 | 3 | 3 | 0.32 | 4 | 4 | 0.34 |
| 2 | 2 | 0.35 | 16 | 16 | 0.37 | 5 | 5 | 0.40 |
| 14 | 14 | 0.42 | 1 | 1 | 0.45 | 10 | 10 | 0.46 |
| 12 | 12 | 0.51 | 6 | 6 | 0.54 | | | |
| AVERAGE: | | 0.35 | | | | | | |

Table 10.7c Station parameters of the series system of Czech Republic and near border series from Slovakia, Poland

| | | | |
|----|-------------|-------------|--------|
| 1 | 17.57000003 | 49.32000002 | 222.0 |
| 2 | 17.71000004 | 48.90000005 | 383.0 |
| 3 | 17.54000003 | 49.78000004 | 749.0 |
| 4 | 18.24000001 | 49.54000003 | 436.0 |
| 5 | 18.45000002 | 49.55000003 | 1322.0 |
| 6 | 18.12000001 | 49.70000004 | 250.0 |
| 7 | 18.02916667 | 48.89694449 | 209.0 |
| 8 | 17.57805559 | 48.75055559 | 409.0 |
| 9 | 17.11055556 | 48.16861112 | 287.0 |
| 10 | 17.68055559 | 48.49194447 | 178.0 |
| 11 | 18.19416668 | 47.87305560 | 115.0 |
| 12 | 18.77527782 | 49.43916669 | 423.0 |
| 13 | 18.59388892 | 48.76972226 | 260.0 |
| 14 | 19.18305556 | 49.36833335 | 780.0 |
| 15 | 18.19166668 | 50.06166667 | 206.0 |
| 16 | 19.00111111 | 49.80805560 | 398.0 |
| 17 | 18.92027783 | 49.99638894 | 270.0 |

Annex 11. Wind direction, component U

(The station systems are the same as in Annex 10)

Table 11.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 703156 | 55 | 95.35 | 11968 | 65 | 63.48 | 58300 | 37 | 43.89 |
| 66519 | 41 | 42.41 | 56300 | 34 | 42.10 | 11927 | 63 | 41.67 |
| 54306 | 31 | 35.41 | 23201 | 8 | 34.69 | 48101 | 26 | 34.55 |
| 11946 | 64 | 33.69 | 604037 | 53 | 33.60 | 44121 | 21 | 33.03 |
| 43613 | 20 | 31.96 | 26505 | 11 | 31.83 | 34211 | 14 | 31.25 |
| daruv | 44 | 30.04 | 36100 | 15 | 29.14 | 33634 | 58 | 28.99 |
| 55502 | 32 | 28.40 | 608121 | 54 | 28.38 | 46303 | 24 | 27.57 |
| 748253 | 56 | 27.53 | 53521 | 30 | 27.36 | KIK | 52 | 26.15 |
| bjelo | 43 | 25.96 | 38605 | 18 | 25.39 | 44527 | 23 | 23.70 |
| 52819 | 28 | 22.77 | 23703 | 9 | 22.69 | 57311 | 35 | 22.55 |
| 11858 | 62 | 22.08 | valpo | 49 | 22.05 | djurd | 45 | 21.60 |
| 63411 | 39 | 20.29 | donji | 46 | 20.18 | 73302 | 42 | 19.70 |
| osije | 47 | 19.46 | 64704 | 40 | 19.46 | 36407 | 16 | 19.40 |
| SOM | 51 | 19.37 | 11813 | 61 | 19.26 | 53101 | 29 | 19.19 |
| 61709 | 38 | 18.97 | 11978 | 66 | 18.37 | 47106 | 25 | 18.28 |
| 16414 | 5 | 18.25 | slavo | 48 | 17.80 | 58113 | 36 | 17.30 |
| 17809 | 7 | 17.16 | 55706 | 33 | 16.75 | 25212 | 10 | 16.38 |
| PAL | 50 | 16.18 | 14706 | 2 | 16.00 | 28700 | 13 | 15.54 |
| 33638 | 59 | 15.32 | 36500 | 17 | 15.02 | 16204 | 4 | 14.10 |
| 11803 | 60 | 13.79 | 15310 | 3 | 13.78 | 27815 | 12 | 13.04 |
| 33631 | 57 | 11.99 | 51705 | 27 | 11.28 | 13704 | 1 | 11.10 |
| 17306 | 6 | 10.29 | 44214 | 22 | 8.91 | 39113 | 19 | 7.21 |
| AVERAGE: | | 24.55 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|---------|--------|-------|--------|
| 17306 | 6 | 2210.67 | 57311 | 35 | 1630.83 | 61709 | 38 | 775.21 |
| 703156 | 55 | 701.60 | 47106 | 25 | 645.78 | 43613 | 20 | 634.02 |
| 608121 | 54 | 556.73 | 23201 | 8 | 477.70 | 63411 | 39 | 424.83 |
| 55502 | 32 | 391.88 | 28700 | 13 | 383.07 | djurd | 45 | 346.05 |
| 46303 | 24 | 341.44 | 33631 | 57 | 335.52 | 38605 | 18 | 318.23 |
| 36500 | 17 | 272.21 | 56300 | 34 | 250.68 | 11968 | 65 | 237.59 |
| 44527 | 23 | 224.10 | 11946 | 64 | 185.19 | 54306 | 31 | 177.43 |
| 33634 | 58 | 176.60 | 66519 | 41 | 172.95 | 55706 | 33 | 171.62 |
| 26505 | 11 | 166.45 | bjelo | 43 | 165.85 | 13704 | 1 | 147.23 |
| 64704 | 40 | 146.25 | 51705 | 27 | 143.22 | 36100 | 15 | 138.13 |
| 73302 | 42 | 136.87 | 11927 | 63 | 134.72 | 52819 | 28 | 128.40 |
| 58113 | 36 | 119.57 | daruv | 44 | 109.50 | 33638 | 59 | 109.23 |
| 58300 | 37 | 105.41 | 27815 | 12 | 99.33 | 48101 | 26 | 98.04 |
| 25212 | 10 | 96.75 | slavo | 48 | 89.27 | 16414 | 5 | 87.43 |
| 11813 | 61 | 85.78 | osije | 47 | 84.05 | 748253 | 56 | 82.56 |
| 14706 | 2 | 76.18 | 15310 | 3 | 74.63 | 34211 | 14 | 71.88 |
| 23703 | 9 | 68.72 | 36407 | 16 | 68.36 | 17809 | 7 | 67.58 |
| 44121 | 21 | 64.36 | 11803 | 60 | 63.41 | 53521 | 30 | 59.82 |
| 53101 | 29 | 57.01 | SOM | 51 | 51.22 | 11978 | 66 | 50.94 |
| 44214 | 22 | 43.77 | 11858 | 62 | 39.39 | 39113 | 19 | 38.81 |
| KIK | 52 | 37.58 | 604037 | 53 | 27.25 | 16204 | 4 | 23.17 |
| valpo | 49 | 22.17 | donji | 46 | 19.07 | PAL | 50 | 17.05 |
| AVERAGE: | | 235.73 | | | | | | |

Table 11.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11978 | 66 | 0.09 | 14706 | 2 | 0.12 | 51705 | 27 | 0.15 |
| 61709 | 38 | 0.16 | 11946 | 64 | 0.23 | 11968 | 65 | 0.26 |
| 33631 | 57 | 0.26 | 33638 | 59 | 0.29 | 11813 | 61 | 0.30 |
| 17809 | 7 | 0.32 | 11803 | 60 | 0.32 | 17306 | 6 | 0.33 |
| 26505 | 11 | 0.38 | 38605 | 18 | 0.39 | 13704 | 1 | 0.39 |
| donji | 46 | 0.41 | 15310 | 3 | 0.41 | bjelo | 43 | 0.42 |
| 25212 | 10 | 0.43 | 604037 | 53 | 0.44 | 608121 | 54 | 0.45 |
| daruv | 44 | 0.45 | 16204 | 4 | 0.46 | valpo | 49 | 0.46 |
| 33634 | 58 | 0.46 | 748253 | 56 | 0.47 | 73302 | 42 | 0.48 |
| 43613 | 20 | 0.49 | KIK | 52 | 0.49 | 16414 | 5 | 0.49 |
| 44214 | 22 | 0.49 | 36500 | 17 | 0.50 | 52819 | 28 | 0.50 |
| 36100 | 15 | 0.50 | djurd | 45 | 0.50 | 27815 | 12 | 0.51 |
| slavo | 48 | 0.51 | 36407 | 16 | 0.52 | 58300 | 37 | 0.52 |
| 28700 | 13 | 0.52 | 53101 | 29 | 0.52 | 703156 | 55 | 0.54 |
| 55706 | 33 | 0.55 | osije | 47 | 0.56 | 23201 | 8 | 0.56 |
| 63411 | 39 | 0.57 | 48101 | 26 | 0.57 | 44121 | 21 | 0.58 |
| 34211 | 14 | 0.58 | PAL | 50 | 0.59 | 11927 | 63 | 0.61 |
| 11858 | 62 | 0.61 | 23703 | 9 | 0.61 | 57311 | 35 | 0.62 |
| 64704 | 40 | 0.63 | 46303 | 24 | 0.65 | 47106 | 25 | 0.67 |
| 54306 | 31 | 0.67 | 53521 | 30 | 0.68 | 39113 | 19 | 0.68 |
| 56300 | 34 | 0.69 | 44527 | 23 | 0.71 | SOM | 51 | 0.71 |
| 58113 | 36 | 0.71 | 55502 | 32 | 0.71 | 66519 | 41 | 0.73 |
| AVERAGE: | | 0.49 | | | | | | |

Table 11.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| DTS | 36 | 182.99 | ALE | 32 | 126.96 | ORA | 37 | 107.43 |
| SNM | 40 | 100.98 | KRV | 27 | 99.39 | CUP | 31 | 97.94 |
| SPL | 20 | 86.60 | POZ | 26 | 73.75 | ZLA | 25 | 73.64 |
| BEC | 7 | 71.07 | BGD | 16 | 69.89 | VRS | 13 | 69.82 |
| SRM | 15 | 68.42 | BAJ | 3 | 64.98 | KRG | 21 | 58.61 |
| TIM | 39 | 58.34 | VBA | 28 | 58.16 | REK | 29 | 57.99 |
| ZRE | 12 | 56.24 | VGR | 17 | 55.71 | BPT | 10 | 52.92 |
| LJU | 18 | 45.33 | SZE | 4 | 43.35 | SOM | 6 | 41.95 |
| BBA | 24 | 40.70 | NEG | 23 | 40.01 | BAN | 38 | 35.37 |
| KRS | 30 | 35.36 | VLJ | 19 | 34.71 | SEN | 8 | 34.57 |
| CAL | 34 | 34.45 | NSA | 11 | 33.33 | OSI | 1 | 29.55 |
| ZAJ | 33 | 23.88 | LOZ | 14 | 22.48 | VAL | 2 | 19.66 |
| BCL | 35 | 19.56 | PAL | 5 | 18.99 | KIK | 9 | 18.80 |
| ZAG | 22 | 9.03 | | | | | | |
| AVERAGE: | | 56.82 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| KRV | 27 | 462.55 | ALE | 32 | 288.66 | ZRE | 12 | 267.73 |
| BGD | 16 | 241.17 | BBA | 24 | 234.21 | ZAJ | 33 | 221.70 |
| VBA | 28 | 221.60 | TIM | 39 | 213.17 | DTS | 36 | 202.95 |
| BAN | 38 | 188.01 | SEN | 8 | 186.54 | SRM | 15 | 180.64 |
| BAJ | 3 | 151.65 | VRS | 13 | 151.55 | ORA | 37 | 148.56 |
| ZLA | 25 | 146.38 | KRG | 21 | 134.20 | POZ | 26 | 133.77 |
| REK | 29 | 116.69 | SZE | 4 | 105.18 | BEC | 7 | 100.56 |
| SPL | 20 | 89.72 | SNM | 40 | 87.29 | OSI | 1 | 84.33 |
| KRS | 30 | 66.79 | LJU | 18 | 63.70 | BPT | 10 | 63.14 |
| NEG | 23 | 51.47 | VAL | 2 | 51.33 | CAL | 34 | 51.30 |
| VLJ | 19 | 47.98 | VGR | 17 | 41.36 | NSA | 11 | 38.15 |
| KIK | 9 | 34.00 | LOZ | 14 | 33.55 | SOM | 6 | 33.52 |
| PAL | 5 | 32.38 | BCL | 35 | 30.51 | CUP | 31 | 22.06 |
| ZAG | 22 | 17.44 | | | | | | |
| AVERAGE: | | 125.94 | | | | | | |

Table 11.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| LJU | 18 | 0.10 | REK | 29 | 0.29 | SNM | 40 | 0.33 |
| BBA | 24 | 0.38 | LOZ | 14 | 0.40 | VAL | 2 | 0.42 |
| ZLA | 25 | 0.42 | BAN | 38 | 0.44 | VBA | 28 | 0.44 |
| SPL | 20 | 0.46 | ALE | 32 | 0.46 | POZ | 26 | 0.46 |
| TIM | 39 | 0.48 | KIK | 9 | 0.50 | ZAG | 22 | 0.50 |
| PAL | 5 | 0.53 | VLJ | 19 | 0.56 | VRS | 13 | 0.56 |
| BPT | 10 | 0.57 | NEG | 23 | 0.57 | OSI | 1 | 0.57 |
| KRV | 27 | 0.58 | BAJ | 3 | 0.58 | ZAJ | 33 | 0.60 |
| KRS | 30 | 0.61 | CAL | 34 | 0.62 | BCL | 35 | 0.62 |
| CUP | 31 | 0.62 | VGR | 17 | 0.63 | BGD | 16 | 0.65 |
| SRM | 15 | 0.65 | KRG | 21 | 0.65 | SOM | 6 | 0.65 |
| SZE | 4 | 0.66 | SEN | 8 | 0.67 | ZRE | 12 | 0.67 |
| DTS | 36 | 0.67 | NSA | 11 | 0.68 | ORA | 37 | 0.68 |
| BEC | 7 | 0.77 | | | | | | |
| AVERAGE: | | 0.54 | | | | | | |

Table 11.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 709352 | 92 | 178.74 | 511349 | 40 | 173.49 | 714623 | 95 | 162.67 |
| 523530 | 46 | 155.36 | 453344 | 28 | 133.35 | 632432 | 79 | 124.79 |
| 618518 | 75 | 120.22 | 445718 | 26 | 108.87 | 617637 | 74 | 107.90 |
| 414352 | 13 | 106.83 | 456526 | 29 | 106.63 | 747356 | 101 | 103.12 |
| 430608 | 18 | 98.86 | 523328 | 45 | 98.11 | 406421 | 8 | 96.78 |
| 740330 | 99 | 93.83 | 758355 | 104 | 93.06 | 506422 | 35 | 91.01 |
| 530535 | 53 | 88.13 | 347357 | 2 | 88.03 | 359257 | 5 | 83.86 |
| 656621 | 89 | 83.86 | 349835 | 3 | 83.68 | 542532 | 59 | 83.63 |
| 635658 | 81 | 82.76 | 346452 | 1 | 81.50 | 655522 | 86 | 80.71 |
| 444417 | 25 | 76.85 | 413838 | 12 | 72.09 | 438238 | 20 | 71.00 |
| 502141 | 33 | 70.21 | 523108 | 44 | 67.55 | 525323 | 49 | 66.39 |
| 436447 | 19 | 64.90 | 13295 | 111 | 64.42 | 632130 | 77 | 64.27 |
| 408800 | 10 | 63.96 | 606705 | 69 | 63.65 | 710736 | 93 | 62.43 |
| 13285 | 112 | 61.32 | 501252 | 32 | 61.18 | 352557 | 4 | 60.99 |
| 417530 | 15 | 60.16 | 711305 | 94 | 59.91 | 614740 | 73 | 57.17 |
| 751555 | 103 | 56.12 | 525358 | 50 | 54.98 | 546115 | 60 | 53.32 |
| 639744 | 82 | 52.35 | 551459 | 62 | 51.77 | 507158 | 36 | 51.60 |
| 703156 | 90 | 51.13 | 415816 | 14 | 50.64 | 500432 | 31 | 50.55 |
| 33634 | 115 | 50.01 | 741640 | 100 | 49.80 | 441757 | 22 | 48.49 |
| 655650 | 87 | 48.35 | 359521 | 6 | 48.32 | 439534 | 21 | 47.11 |
| 611355 | 71 | 46.76 | 739615 | 98 | 46.68 | 509940 | 39 | 46.24 |
| 428307 | 17 | 46.06 | 553254 | 65 | 45.81 | 33658 | 116 | 44.70 |
| 509441 | 37 | 44.52 | 523703 | 47 | 44.44 | 647334 | 85 | 43.67 |
| 642540 | 83 | 43.25 | 452452 | 27 | 42.81 | 551716 | 64 | 42.79 |
| 66519 | 105 | 41.32 | 608121 | 70 | 41.06 | 530801 | 54 | 39.18 |
| 557334 | 66 | 38.69 | 600608 | 67 | 37.30 | 538416 | 55 | 37.21 |
| 748253 | 102 | 36.77 | 604037 | 68 | 36.57 | 539357 | 56 | 36.33 |
| 444127 | 24 | 36.22 | 13173 | 114 | 35.78 | 511849 | 41 | 34.91 |
| 401321 | 7 | 34.88 | 632229 | 78 | 34.58 | 622544 | 76 | 34.07 |
| 515231 | 42 | 34.04 | 517507 | 43 | 32.47 | 634322 | 80 | 31.11 |
| 13183 | 113 | 30.20 | 407500 | 9 | 29.98 | 525215 | 48 | 29.71 |
| 502317 | 34 | 28.74 | 33647 | 118 | 28.46 | 528518 | 52 | 27.43 |
| 708430 | 91 | 26.70 | 73302 | 108 | 23.16 | 509649 | 38 | 23.06 |
| 13174 | 110 | 22.94 | 64704 | 106 | 22.86 | 58300 | 109 | 21.84 |
| 527527 | 51 | 21.77 | 722657 | 96 | 21.64 | 548409 | 61 | 20.58 |
| 412721 | 11 | 20.05 | 656555 | 88 | 19.11 | 57311 | 107 | 17.84 |
| 33638 | 117 | 17.34 | 425606 | 16 | 16.81 | 737439 | 97 | 16.77 |
| 443639 | 23 | 16.27 | 541601 | 58 | 16.11 | 551621 | 63 | 15.75 |
| 541154 | 57 | 15.40 | 646247 | 84 | 14.76 | 33657 | 119 | 14.07 |
| 457600 | 30 | 12.78 | 614436 | 72 | 11.77 | | | |
| AVERAGE: | | 55.77 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 57311 | 107 | 772.22 | 709352 | 92 | 622.68 | 703156 | 90 | 615.81 |
| 553254 | 65 | 603.48 | 618518 | 75 | 500.77 | 506422 | 35 | 448.81 |
| 608121 | 70 | 448.60 | 523108 | 44 | 357.52 | 714623 | 95 | 339.78 |
| 13173 | 114 | 325.81 | 352557 | 4 | 322.71 | 546115 | 60 | 318.90 |
| 511349 | 40 | 313.22 | 758355 | 104 | 295.62 | 347357 | 2 | 283.02 |
| 647334 | 85 | 280.20 | 655522 | 86 | 260.93 | 445718 | 26 | 245.02 |
| 523530 | 46 | 242.76 | 740330 | 99 | 237.80 | 346452 | 1 | 232.11 |
| 456526 | 29 | 224.30 | 632432 | 79 | 223.90 | 349835 | 3 | 212.84 |
| 606705 | 69 | 197.73 | 542532 | 59 | 187.47 | 438238 | 20 | 183.31 |
| 417530 | 15 | 174.96 | 73302 | 108 | 174.45 | 751555 | 103 | 170.66 |
| 523328 | 45 | 169.71 | 414352 | 13 | 167.23 | 453344 | 28 | 163.09 |
| 632130 | 77 | 162.07 | 359257 | 5 | 158.57 | 33634 | 115 | 156.86 |
| 415816 | 14 | 154.75 | 430608 | 18 | 152.73 | 444417 | 25 | 148.88 |
| 500432 | 31 | 144.73 | 502141 | 33 | 138.17 | 439534 | 21 | 137.25 |
| 655650 | 87 | 136.43 | 656621 | 89 | 130.41 | 632229 | 78 | 124.82 |
| 523703 | 47 | 123.74 | 66519 | 105 | 122.44 | 639744 | 82 | 121.28 |

| | | | | | | | | |
|----------|-----|--------|--------|-----|--------|--------|-----|--------|
| 539357 | 56 | 119.11 | 635658 | 81 | 116.21 | 501252 | 32 | 116.00 |
| 541154 | 57 | 115.32 | 406421 | 8 | 103.85 | 747356 | 101 | 100.78 |
| 33658 | 116 | 100.40 | 408800 | 10 | 99.50 | 538416 | 55 | 98.34 |
| 525358 | 50 | 96.56 | 614740 | 73 | 96.38 | 710736 | 93 | 93.01 |
| 452452 | 27 | 91.68 | 611355 | 71 | 91.24 | 64704 | 106 | 90.05 |
| 13295 | 111 | 89.30 | 530535 | 53 | 88.57 | 413838 | 12 | 85.75 |
| 708430 | 91 | 84.17 | 722657 | 96 | 78.87 | 509441 | 37 | 78.48 |
| 33657 | 119 | 75.22 | 441757 | 22 | 75.13 | 407500 | 9 | 74.91 |
| 741640 | 100 | 69.60 | 509940 | 39 | 68.13 | 13285 | 112 | 66.62 |
| 551459 | 62 | 64.12 | 13183 | 113 | 61.50 | 617637 | 74 | 60.95 |
| 428307 | 17 | 60.94 | 739615 | 98 | 60.59 | 711305 | 94 | 59.13 |
| 507158 | 36 | 57.57 | 634322 | 80 | 54.95 | 436447 | 19 | 54.03 |
| 502317 | 34 | 52.91 | 511849 | 41 | 50.74 | 551716 | 64 | 50.63 |
| 425606 | 16 | 49.31 | 557334 | 66 | 47.97 | 517507 | 43 | 47.94 |
| 604037 | 68 | 47.50 | 530801 | 54 | 46.83 | 600608 | 67 | 46.78 |
| 515231 | 42 | 45.87 | 359521 | 6 | 44.82 | 642540 | 83 | 43.56 |
| 525215 | 48 | 42.47 | 525323 | 49 | 40.11 | 58300 | 109 | 39.26 |
| 33638 | 117 | 38.93 | 528518 | 52 | 38.06 | 622544 | 76 | 37.84 |
| 33647 | 118 | 33.94 | 444127 | 24 | 32.51 | 748253 | 102 | 32.16 |
| 401321 | 7 | 28.81 | 527527 | 51 | 27.79 | 509649 | 38 | 26.99 |
| 548409 | 61 | 24.41 | 656555 | 88 | 22.82 | 13174 | 110 | 22.66 |
| 737439 | 97 | 21.24 | 412721 | 11 | 21.05 | 541601 | 58 | 20.35 |
| 646247 | 84 | 18.95 | 614436 | 72 | 16.99 | 443639 | 23 | 16.27 |
| 551621 | 63 | 14.95 | 457600 | 30 | 13.27 | | | |
| AVERAGE: | | 139.78 | | | | | | |

Table 11.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 656555 | 88 | 0.00 | 737439 | 97 | 0.07 | 33657 | 119 | 0.11 |
| 551621 | 63 | 0.19 | 632229 | 78 | 0.23 | 646247 | 84 | 0.23 |
| 515231 | 42 | 0.26 | 349835 | 3 | 0.26 | 527527 | 51 | 0.27 |
| 523530 | 46 | 0.27 | 747356 | 101 | 0.30 | 538416 | 55 | 0.31 |
| 528518 | 52 | 0.32 | 523328 | 45 | 0.35 | 525358 | 50 | 0.36 |
| 635658 | 81 | 0.36 | 525323 | 49 | 0.37 | 523703 | 47 | 0.37 |
| 33638 | 117 | 0.37 | 441757 | 22 | 0.37 | 517507 | 43 | 0.37 |
| 541154 | 57 | 0.38 | 502317 | 34 | 0.39 | 632130 | 77 | 0.40 |
| 509940 | 39 | 0.40 | 501252 | 32 | 0.40 | 452452 | 27 | 0.41 |
| 507158 | 36 | 0.42 | 33634 | 115 | 0.42 | 33647 | 118 | 0.43 |
| 58300 | 109 | 0.43 | 530535 | 53 | 0.43 | 722657 | 96 | 0.44 |
| 546115 | 60 | 0.44 | 617637 | 74 | 0.44 | 539357 | 56 | 0.44 |
| 525215 | 48 | 0.45 | 604037 | 68 | 0.45 | 614740 | 73 | 0.47 |
| 73302 | 108 | 0.47 | 523108 | 44 | 0.47 | 551716 | 64 | 0.47 |
| 509441 | 37 | 0.48 | 553254 | 65 | 0.48 | 758355 | 104 | 0.49 |
| 506422 | 35 | 0.49 | 13174 | 110 | 0.49 | 557334 | 66 | 0.50 |
| 656621 | 89 | 0.50 | 606705 | 69 | 0.50 | 708430 | 91 | 0.50 |
| 714623 | 95 | 0.51 | 530801 | 54 | 0.51 | 608121 | 70 | 0.52 |
| 511849 | 41 | 0.53 | 655522 | 86 | 0.53 | 639744 | 82 | 0.53 |
| 703156 | 90 | 0.54 | 13295 | 111 | 0.54 | 614436 | 72 | 0.54 |
| 425606 | 16 | 0.54 | 622544 | 76 | 0.54 | 709352 | 92 | 0.55 |
| 740330 | 99 | 0.55 | 511349 | 40 | 0.56 | 634322 | 80 | 0.56 |
| 711305 | 94 | 0.56 | 647334 | 85 | 0.56 | 457600 | 30 | 0.56 |
| 415816 | 14 | 0.57 | 541601 | 58 | 0.57 | 548409 | 61 | 0.57 |
| 64704 | 106 | 0.57 | 413838 | 12 | 0.57 | 642540 | 83 | 0.57 |
| 655650 | 87 | 0.57 | 509649 | 38 | 0.57 | 445718 | 26 | 0.58 |
| 453344 | 28 | 0.59 | 33658 | 116 | 0.59 | 57311 | 107 | 0.60 |
| 346452 | 1 | 0.60 | 13183 | 113 | 0.60 | 500432 | 31 | 0.60 |
| 748253 | 102 | 0.60 | 751555 | 103 | 0.61 | 551459 | 62 | 0.61 |
| 542532 | 59 | 0.61 | 401321 | 7 | 0.61 | 438238 | 20 | 0.61 |
| 611355 | 71 | 0.61 | 600608 | 67 | 0.62 | 408800 | 10 | 0.62 |
| 632432 | 79 | 0.63 | 618518 | 75 | 0.63 | 414352 | 13 | 0.64 |
| 13173 | 114 | 0.65 | 444417 | 25 | 0.65 | 456526 | 29 | 0.65 |
| 444127 | 24 | 0.65 | 13285 | 112 | 0.65 | 412721 | 11 | 0.66 |
| 428307 | 17 | 0.66 | 352557 | 4 | 0.67 | 710736 | 93 | 0.67 |
| 739615 | 98 | 0.67 | 443639 | 23 | 0.67 | 359257 | 5 | 0.68 |
| 741640 | 100 | 0.68 | 359521 | 6 | 0.69 | 66519 | 105 | 0.69 |
| 347357 | 2 | 0.69 | 502141 | 33 | 0.70 | 436447 | 19 | 0.72 |
| 406421 | 8 | 0.74 | 417530 | 15 | 0.75 | 430608 | 18 | 0.75 |
| 439534 | 21 | 0.76 | 407500 | 9 | 0.81 | | | |
| AVERAGE: | | 0.51 | | | | | | |

Table 11.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 30 | 30 | 110.66 | 52 | 52 | 91.77 | 27 | 27 | 84.46 |
| 20 | 20 | 71.92 | 45 | 45 | 59.10 | 49 | 49 | 55.10 |
| 40 | 40 | 52.82 | 51 | 51 | 51.60 | 43 | 43 | 50.29 |
| 26 | 26 | 47.66 | 44 | 44 | 43.81 | 16 | 16 | 43.70 |
| 21 | 21 | 41.82 | 1 | 1 | 40.23 | 38 | 38 | 36.94 |
| 28 | 28 | 35.64 | 2 | 2 | 35.49 | 41 | 41 | 33.75 |
| 36 | 36 | 33.65 | 10 | 10 | 32.93 | 34 | 34 | 32.92 |
| 7 | 7 | 30.55 | 25 | 25 | 29.77 | 35 | 35 | 29.15 |
| 50 | 50 | 28.86 | 24 | 24 | 28.14 | 14 | 14 | 27.07 |
| 6 | 6 | 26.47 | 5 | 5 | 26.29 | 9 | 9 | 26.14 |
| 4 | 4 | 25.94 | 47 | 47 | 24.10 | 22 | 22 | 23.99 |
| 31 | 31 | 23.82 | 18 | 18 | 23.47 | 39 | 39 | 23.45 |
| 29 | 29 | 22.75 | 17 | 17 | 22.54 | 42 | 42 | 21.74 |
| 15 | 15 | 20.11 | 48 | 48 | 19.81 | 3 | 3 | 17.97 |
| 53 | 53 | 17.21 | 32 | 32 | 16.82 | 19 | 19 | 16.62 |
| 11 | 11 | 15.64 | 12 | 12 | 14.75 | 33 | 33 | 14.65 |
| 13 | 13 | 13.88 | 46 | 46 | 13.80 | 23 | 23 | 13.35 |
| 37 | 37 | 11.60 | 8 | 8 | 11.52 | | | |
| AVERAGE: | | 33.36 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|---------|--------|-------|--------|--------|-------|--------|
| 45 | 45 | 1022.82 | 25 | 25 | 498.91 | 29 | 29 | 239.55 |
| 52 | 52 | 236.15 | 19 | 19 | 233.25 | 49 | 49 | 230.97 |
| 6 | 6 | 223.48 | 30 | 30 | 156.66 | 47 | 47 | 141.88 |
| 44 | 44 | 137.86 | 16 | 16 | 135.96 | 46 | 46 | 135.24 |
| 3 | 3 | 124.31 | 7 | 7 | 123.87 | 27 | 27 | 118.78 |
| 21 | 21 | 109.35 | 39 | 39 | 107.63 | 35 | 35 | 105.28 |
| 51 | 51 | 101.79 | 41 | 41 | 99.85 | 50 | 50 | 99.79 |
| 43 | 43 | 96.74 | 20 | 20 | 92.39 | 10 | 10 | 92.03 |
| 1 | 1 | 87.38 | 14 | 14 | 85.49 | 12 | 12 | 84.83 |
| 24 | 24 | 78.29 | 4 | 4 | 77.58 | 40 | 40 | 74.74 |
| 18 | 18 | 72.41 | 9 | 9 | 71.03 | 26 | 26 | 70.47 |
| 38 | 38 | 68.01 | 34 | 34 | 62.55 | 11 | 11 | 58.19 |
| 17 | 17 | 53.55 | 8 | 8 | 50.85 | 42 | 42 | 50.51 |
| 48 | 48 | 48.63 | 36 | 36 | 42.40 | 22 | 22 | 41.56 |
| 13 | 13 | 41.49 | 5 | 5 | 38.71 | 31 | 31 | 37.94 |
| 28 | 28 | 37.63 | 2 | 2 | 36.67 | 32 | 32 | 25.61 |
| 23 | 23 | 22.78 | 15 | 15 | 22.41 | 53 | 53 | 20.30 |
| 37 | 37 | 11.03 | 33 | 33 | 9.18 | | | |
| AVERAGE: | | 115.98 | | | | | | |

Table 11.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 31 | 31 | 0.06 | 53 | 53 | 0.07 | 39 | 39 | 0.11 |
| 42 | 42 | 0.13 | 21 | 21 | 0.16 | 32 | 32 | 0.18 |
| 28 | 28 | 0.20 | 23 | 23 | 0.21 | 45 | 45 | 0.22 |
| 44 | 44 | 0.22 | 26 | 26 | 0.27 | 37 | 37 | 0.28 |
| 29 | 29 | 0.32 | 36 | 36 | 0.33 | 51 | 51 | 0.33 |
| 25 | 25 | 0.36 | 46 | 46 | 0.37 | 43 | 43 | 0.39 |
| 33 | 33 | 0.43 | 48 | 48 | 0.44 | 17 | 17 | 0.45 |
| 47 | 47 | 0.47 | 35 | 35 | 0.47 | 38 | 38 | 0.48 |
| 50 | 50 | 0.49 | 52 | 52 | 0.54 | 41 | 41 | 0.59 |
| 49 | 49 | 0.61 | 10 | 10 | 0.65 | 22 | 22 | 0.67 |
| 34 | 34 | 0.67 | 4 | 4 | 0.68 | 18 | 18 | 0.69 |
| 40 | 40 | 0.70 | 7 | 7 | 0.70 | 8 | 8 | 0.72 |
| 27 | 27 | 0.72 | 11 | 11 | 0.73 | 6 | 6 | 0.73 |
| 13 | 13 | 0.74 | 14 | 14 | 0.74 | 15 | 15 | 0.74 |
| 20 | 20 | 0.75 | 30 | 30 | 0.75 | 16 | 16 | 0.75 |
| 1 | 1 | 0.78 | 5 | 5 | 0.78 | 9 | 9 | 0.79 |
| 2 | 2 | 0.79 | 24 | 24 | 0.80 | 12 | 12 | 0.80 |
| 3 | 3 | 0.80 | 19 | 19 | 0.82 | | | |
| AVERAGE: | | 0.52 | | | | | | |

Table 11.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 6809 | 47 | 215.24 | 61709 | 33 | 120.63 | 6518 | 41 | 118.54 |
| 6507 | 39 | 84.21 | 6513 | 40 | 68.86 | 660 | 37 | 63.64 |
| 33514 | 24 | 61.67 | 11774 | 48 | 61.13 | 6628 | 44 | 59.39 |
| 6618 | 43 | 57.13 | 11946 | 17 | 51.76 | 11868 | 8 | 51.23 |
| 650 | 36 | 50.90 | 11993 | 22 | 50.73 | 11938 | 16 | 48.81 |
| 33634 | 27 | 46.89 | 11910 | 13 | 44.11 | 11931 | 15 | 43.95 |
| 11978 | 21 | 43.81 | 53101 | 31 | 41.66 | 625 | 35 | 40.66 |
| 6702 | 45 | 39.81 | 11779 | 49 | 39.03 | 6707 | 46 | 37.41 |
| 11766 | 50 | 36.19 | 44121 | 28 | 35.45 | 11902 | 11 | 35.12 |
| 11961 | 18 | 34.57 | 23201 | 32 | 34.39 | 690 | 38 | 29.72 |
| 11968 | 19 | 26.96 | 6605 | 42 | 26.74 | 11785 | 51 | 24.24 |
| 11813 | 3 | 23.59 | 11977 | 20 | 22.77 | 33631 | 26 | 22.75 |
| 11866 | 6 | 21.58 | 11806 | 2 | 21.44 | 11876 | 10 | 20.38 |
| 11903 | 12 | 19.90 | 33517 | 25 | 19.68 | 11874 | 9 | 18.51 |
| 33511 | 23 | 17.46 | 11819 | 4 | 17.24 | 11927 | 14 | 16.35 |
| 23703 | 29 | 16.00 | 11782 | 53 | 14.78 | 11867 | 7 | 14.56 |
| 11858 | 5 | 14.54 | 51705 | 30 | 14.41 | 11803 | 1 | 13.87 |
| 600 | 34 | 8.73 | 11787 | 52 | 6.69 | | | |
| AVERAGE: | | 40.94 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 61709 | 33 | 716.16 | 6618 | 43 | 254.05 | 23201 | 32 | 250.14 |
| 33631 | 26 | 247.88 | 11946 | 17 | 226.67 | 11993 | 22 | 203.48 |
| 33514 | 24 | 184.75 | 33517 | 25 | 180.07 | 11961 | 18 | 171.01 |
| 51705 | 30 | 162.20 | 11868 | 8 | 157.85 | 11978 | 21 | 145.45 |
| 6507 | 39 | 142.07 | 33634 | 27 | 115.35 | 6513 | 40 | 114.67 |
| 11876 | 10 | 111.22 | 6809 | 47 | 109.28 | 650 | 36 | 107.84 |
| 11813 | 3 | 107.82 | 11774 | 48 | 106.72 | 11902 | 11 | 103.77 |
| 6518 | 41 | 103.10 | 11968 | 19 | 101.49 | 11866 | 6 | 100.84 |
| 6628 | 44 | 93.66 | 11785 | 51 | 93.40 | 6702 | 45 | 92.02 |
| 11858 | 5 | 88.97 | 660 | 37 | 77.03 | 11803 | 1 | 73.44 |
| 53101 | 31 | 72.76 | 11910 | 13 | 63.31 | 11938 | 16 | 62.68 |
| 11806 | 2 | 62.30 | 690 | 38 | 61.15 | 11931 | 15 | 58.30 |
| 11867 | 7 | 50.72 | 6707 | 46 | 50.24 | 625 | 35 | 46.97 |
| 11766 | 50 | 45.97 | 11977 | 20 | 45.88 | 11779 | 49 | 45.11 |
| 11927 | 14 | 42.41 | 33511 | 23 | 41.25 | 6605 | 42 | 40.94 |
| 11819 | 4 | 34.11 | 44121 | 28 | 29.30 | 11874 | 9 | 23.82 |
| 11903 | 12 | 23.59 | 23703 | 29 | 19.60 | 11782 | 53 | 15.75 |
| 11787 | 52 | 11.98 | 600 | 34 | 9.64 | | | |
| AVERAGE: | | 107.55 | | | | | | |

Table 11.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11866 | 6 | 0.02 | 33511 | 23 | 0.06 | 11977 | 20 | 0.10 |
| 51705 | 30 | 0.11 | 11931 | 15 | 0.17 | 61709 | 33 | 0.21 |
| 11978 | 21 | 0.22 | 33514 | 24 | 0.24 | 11961 | 18 | 0.26 |
| 11946 | 17 | 0.28 | 33517 | 25 | 0.28 | 6513 | 40 | 0.29 |
| 6707 | 46 | 0.29 | 11785 | 51 | 0.29 | 11874 | 9 | 0.30 |
| 6628 | 44 | 0.31 | 33631 | 26 | 0.32 | 11813 | 3 | 0.32 |
| 11876 | 10 | 0.33 | 11993 | 22 | 0.39 | 11968 | 19 | 0.39 |
| 11910 | 13 | 0.40 | 6605 | 42 | 0.40 | 23201 | 32 | 0.41 |
| 6618 | 43 | 0.41 | 11938 | 16 | 0.43 | 11787 | 52 | 0.44 |
| 33634 | 27 | 0.46 | 11779 | 49 | 0.47 | 660 | 37 | 0.48 |
| 11868 | 8 | 0.48 | 11819 | 4 | 0.48 | 11806 | 2 | 0.51 |
| 11903 | 12 | 0.51 | 6809 | 47 | 0.51 | 650 | 36 | 0.51 |
| 625 | 35 | 0.52 | 6507 | 39 | 0.52 | 11774 | 48 | 0.54 |
| 690 | 38 | 0.54 | 11867 | 7 | 0.55 | 11766 | 50 | 0.56 |
| 44121 | 28 | 0.56 | 11803 | 1 | 0.56 | 6702 | 45 | 0.58 |
| 600 | 34 | 0.58 | 11902 | 11 | 0.58 | 53101 | 31 | 0.59 |
| 11927 | 14 | 0.59 | 11782 | 53 | 0.61 | 11858 | 5 | 0.63 |
| 23703 | 29 | 0.64 | 6518 | 41 | 0.65 | | | |
| AVERAGE: | | 0.41 | | | | | | |

Table 11.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|-------|
| 6809 | 21 | 157.12 | 6518 | 15 | 118.54 | 6507 | 13 | 84.21 |
| 566 | 2 | 70.13 | 6513 | 14 | 68.86 | 6628 | 18 | 59.39 |
| 11993 | 42 | 58.59 | 660 | 8 | 55.96 | 33392 | 23 | 55.56 |
| 6618 | 17 | 55.20 | 33398 | 25 | 52.59 | 11868 | 35 | 51.23 |
| 650 | 7 | 50.90 | 5511 | 12 | 49.64 | 575 | 3 | 48.33 |
| 6605 | 16 | 48.21 | 6702 | 19 | 46.88 | 33514 | 27 | 46.53 |
| 1hole | 28 | 46.21 | 11931 | 38 | 43.95 | 625 | 6 | 40.66 |
| 6707 | 20 | 38.96 | 33287 | 22 | 38.75 | 540 | 1 | 37.74 |
| 11938 | 39 | 36.42 | 11961 | 40 | 34.57 | 1strn | 29 | 34.39 |
| 580 | 4 | 33.85 | 5409 | 10 | 28.58 | 5508 | 11 | 25.64 |
| 33511 | 26 | 25.63 | 33391 | 24 | 24.65 | 1cerv | 30 | 24.17 |
| 11874 | 36 | 23.76 | 11876 | 37 | 22.44 | 11866 | 34 | 22.18 |
| 1fren | 31 | 19.87 | 1mosn | 33 | 18.83 | 11977 | 41 | 16.57 |
| 690 | 9 | 13.62 | 6 | 5 | 12.69 | 1lysa | 32 | 4.92 |
| AVERAGE: | | 43.97 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 06618 | 17 | 331.78 | 11961 | 40 | 224.40 | 06809 | 21 | 165.74 |
| 11868 | 35 | 139.55 | 06513 | 14 | 119.00 | 33514 | 27 | 112.40 |
| 05511 | 12 | 110.20 | 1hole | 28 | 107.48 | 00650 | 7 | 106.27 |
| 06507 | 13 | 100.82 | 06518 | 15 | 97.08 | 06702 | 19 | 94.75 |
| 11866 | 34 | 88.54 | 06628 | 18 | 88.44 | 1fren | 31 | 81.66 |
| 00660 | 8 | 79.81 | 11876 | 37 | 74.09 | 05508 | 11 | 65.97 |
| 00566 | 2 | 62.21 | 06707 | 20 | 62.00 | 00625 | 6 | 61.71 |
| 33398 | 25 | 61.53 | 00540 | 1 | 58.18 | 00575 | 3 | 57.49 |
| 11977 | 41 | 51.41 | 11931 | 38 | 49.69 | 11993 | 42 | 48.05 |
| 33511 | 26 | 46.53 | 06605 | 16 | 46.07 | 11938 | 39 | 40.31 |
| 1strn | 29 | 39.52 | 11874 | 36 | 38.52 | 33392 | 23 | 36.50 |
| 00580 | 4 | 34.51 | 1cerv | 30 | 31.84 | 05409 | 10 | 29.11 |
| 33287 | 22 | 27.32 | 00690 | 9 | 26.31 | 1mosn | 33 | 18.35 |
| 33391 | 24 | 17.54 | 1lysa | 32 | 12.45 | 00600 | 5 | 12.15 |
| AVERAGE: | | 75.17 | | | | | | |

Table 11.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11866 | 34 | 0.02 | 11977 | 41 | 0.12 | 33514 | 27 | 0.12 |
| 11931 | 38 | 0.17 | 11874 | 36 | 0.23 | 1strn | 29 | 0.24 |
| 11961 | 40 | 0.26 | 6513 | 14 | 0.29 | 1fren | 31 | 0.29 |
| 6707 | 20 | 0.29 | 6628 | 18 | 0.31 | 11876 | 37 | 0.32 |
| 11993 | 42 | 0.36 | 6618 | 17 | 0.41 | 1lysa | 32 | 0.44 |
| 11938 | 39 | 0.46 | 33511 | 26 | 0.47 | 11868 | 35 | 0.48 |
| 6809 | 21 | 0.49 | 540 | 1 | 0.49 | 660 | 8 | 0.50 |
| 6605 | 16 | 0.51 | 1hole | 28 | 0.51 | 650 | 7 | 0.51 |
| 625 | 6 | 0.52 | 6507 | 13 | 0.52 | 5409 | 10 | 0.54 |
| 33391 | 24 | 0.55 | 1cerv | 30 | 0.56 | 6 | 5 | 0.57 |
| 5508 | 11 | 0.58 | 1mosn | 33 | 0.59 | 566 | 2 | 0.59 |
| 6702 | 19 | 0.60 | 690 | 9 | 0.60 | 33392 | 23 | 0.63 |
| 6518 | 15 | 0.65 | 580 | 4 | 0.66 | 5511 | 12 | 0.72 |
| 575 | 3 | 0.72 | 33287 | 22 | 0.74 | 33398 | 25 | 0.75 |
| AVERAGE: | | 0.46 | | | | | | |

Table 11.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 1 | 1 | 60.98 | 2 | 2 | 39.03 | 13 | 13 | 38.19 |
| 15 | 15 | 37.74 | 12 | 12 | 27.98 | 7 | 7 | 27.45 |
| 3 | 3 | 24.17 | 10 | 10 | 23.70 | 9 | 9 | 23.59 |
| 14 | 14 | 23.35 | 4 | 4 | 19.87 | 11 | 11 | 18.54 |
| 16 | 16 | 18.28 | 17 | 17 | 15.49 | 6 | 6 | 14.49 |
| 8 | 8 | 11.55 | 5 | 5 | 4.92 | | | |
| AVERAGE: | | 25.25 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 7 | 7 | 129.46 | 9 | 9 | 119.25 | 12 | 12 | 101.76 |
| 14 | 14 | 99.42 | 1 | 1 | 89.18 | 8 | 8 | 73.12 |
| 4 | 4 | 65.65 | 11 | 11 | 58.55 | 15 | 15 | 50.76 |
| 2 | 2 | 47.55 | 13 | 13 | 41.83 | 17 | 17 | 33.11 |
| 3 | 3 | 29.10 | 6 | 6 | 21.53 | 16 | 16 | 18.70 |
| 10 | 10 | 18.68 | 5 | 5 | 5.94 | | | |
| AVERAGE: | | 59.03 | | | | | | |

Table 11.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 12 | 12 | 0.08 | 4 | 4 | 0.29 | 9 | 9 | 0.32 |
| 5 | 5 | 0.44 | 2 | 2 | 0.47 | 14 | 14 | 0.48 |
| 15 | 15 | 0.49 | 7 | 7 | 0.50 | 8 | 8 | 0.50 |
| 17 | 17 | 0.50 | 10 | 10 | 0.51 | 1 | 1 | 0.54 |
| 11 | 11 | 0.55 | 3 | 3 | 0.56 | 13 | 13 | 0.57 |
| 16 | 16 | 0.60 | 6 | 6 | 0.61 | | | |
| AVERAGE: | | 0.45 | | | | | | |

Annex 12. Wind direction, component V
(The station systems are the same as in Annex 10)

Table 12.1a. Test statistics for harmonization control of the series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 748253 | 56 | 105.92 | 604037 | 53 | 68.21 | 61709 | 38 | 55.53 |
| 58113 | 36 | 53.67 | bjelo | 43 | 52.47 | 57311 | 35 | 52.07 |
| 11946 | 64 | 50.68 | 66519 | 41 | 49.10 | 608121 | 54 | 46.55 |
| 23703 | 9 | 44.57 | 703156 | 55 | 43.85 | 58300 | 37 | 39.61 |
| 36407 | 16 | 37.27 | 17809 | 7 | 37.06 | PAL | 50 | 36.04 |
| 33634 | 58 | 35.51 | 38605 | 18 | 35.50 | osije | 47 | 34.87 |
| 23201 | 8 | 34.64 | 36100 | 15 | 33.38 | donji | 46 | 32.34 |
| SOM | 51 | 30.74 | 13704 | 1 | 29.90 | 46303 | 24 | 29.35 |
| 11858 | 62 | 27.27 | 17306 | 6 | 25.53 | KIK | 52 | 25.24 |
| 16414 | 5 | 24.82 | 73302 | 42 | 24.81 | 44527 | 23 | 24.63 |
| slavo | 48 | 22.95 | 64704 | 40 | 22.93 | 54306 | 31 | 21.67 |
| 52819 | 28 | 20.77 | valpo | 49 | 20.37 | 53521 | 30 | 20.34 |
| 51705 | 27 | 19.99 | 14706 | 2 | 19.39 | 16204 | 4 | 19.03 |
| 25212 | 10 | 18.79 | 47106 | 25 | 18.75 | 36500 | 17 | 18.36 |
| 44214 | 22 | 18.27 | 11813 | 61 | 17.94 | 43613 | 20 | 17.67 |
| 55502 | 32 | 17.50 | 53101 | 29 | 17.39 | 11927 | 63 | 17.23 |
| 27815 | 12 | 16.73 | 11978 | 66 | 16.67 | 26505 | 11 | 16.57 |
| daruv | 44 | 15.83 | 39113 | 19 | 15.72 | 28700 | 13 | 15.15 |
| 11803 | 60 | 14.94 | 44121 | 21 | 14.07 | 56300 | 34 | 13.73 |
| 63411 | 39 | 13.01 | 48101 | 26 | 12.81 | 33638 | 59 | 11.61 |
| djurd | 45 | 11.50 | 34211 | 14 | 11.48 | 33631 | 57 | 11.03 |
| 15310 | 3 | 10.50 | 55706 | 33 | 9.77 | 11968 | 65 | 6.66 |
| AVERAGE: | | 27.40 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11946 | 64 | 334.81 | 47106 | 25 | 322.21 | 36407 | 16 | 320.14 |
| 63411 | 39 | 319.51 | 58300 | 37 | 305.23 | 57311 | 35 | 280.68 |
| 748253 | 56 | 269.20 | 38605 | 18 | 263.12 | 66519 | 41 | 246.10 |
| 27815 | 12 | 241.72 | 58113 | 36 | 234.33 | 54306 | 31 | 205.80 |
| 16204 | 4 | 198.91 | djurd | 45 | 179.29 | 608121 | 54 | 172.53 |
| 23703 | 9 | 171.66 | 28700 | 13 | 164.64 | 73302 | 42 | 163.98 |
| valpo | 49 | 161.42 | 51705 | 27 | 161.25 | 43613 | 20 | 158.33 |
| 703156 | 55 | 150.47 | osije | 47 | 140.55 | 44121 | 21 | 136.78 |
| 33634 | 58 | 134.28 | 56300 | 34 | 129.50 | 33638 | 59 | 127.08 |
| PAL | 50 | 126.60 | 36100 | 15 | 126.03 | 61709 | 38 | 118.86 |
| 44214 | 22 | 118.58 | 46303 | 24 | 113.14 | 55502 | 32 | 105.15 |
| 53521 | 30 | 104.92 | 44527 | 23 | 103.58 | 55706 | 33 | 102.59 |
| 14706 | 2 | 97.45 | 11813 | 61 | 96.83 | 11927 | 63 | 94.74 |
| 52819 | 28 | 92.48 | 17306 | 6 | 91.89 | 36500 | 17 | 86.78 |
| SOM | 51 | 86.54 | 15310 | 3 | 84.72 | 11858 | 62 | 79.95 |
| 604037 | 53 | 76.46 | 34211 | 14 | 73.71 | 16414 | 5 | 72.80 |
| 13704 | 1 | 72.29 | 25212 | 10 | 69.15 | daruv | 44 | 69.15 |
| 39113 | 19 | 68.05 | 64704 | 40 | 67.34 | 53101 | 29 | 65.98 |
| 11968 | 65 | 63.70 | 26505 | 11 | 61.01 | 23201 | 8 | 58.05 |
| 17809 | 7 | 57.48 | bjelo | 43 | 57.02 | 48101 | 26 | 49.39 |
| 33631 | 57 | 48.37 | donji | 46 | 48.18 | 11803 | 60 | 45.92 |
| slavo | 48 | 35.17 | KIK | 52 | 31.53 | 11978 | 66 | 22.68 |
| AVERAGE: | | 132.39 | | | | | | |

Table 12.1b. Representativity statistics for the annual series system of Hungary, Croatia and near border series from Austria, Serbia, Romania, Ukraine, Slovakia (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 33638 | 59 | 0.08 | 11927 | 63 | 0.17 | 11946 | 64 | 0.19 |
| 51705 | 27 | 0.25 | 34211 | 14 | 0.25 | 27815 | 12 | 0.26 |
| 53101 | 29 | 0.26 | 11813 | 61 | 0.33 | 73302 | 42 | 0.33 |
| 43613 | 20 | 0.35 | 11803 | 60 | 0.37 | 33631 | 57 | 0.38 |
| 36500 | 17 | 0.38 | 44121 | 21 | 0.38 | slavo | 48 | 0.39 |
| 748253 | 56 | 0.39 | valpo | 49 | 0.41 | 33634 | 58 | 0.44 |
| 36407 | 16 | 0.45 | 38605 | 18 | 0.45 | donji | 46 | 0.46 |
| 46303 | 24 | 0.46 | SOM | 51 | 0.46 | 11978 | 66 | 0.46 |
| 61709 | 38 | 0.47 | 44214 | 22 | 0.47 | 53521 | 30 | 0.48 |
| 28700 | 13 | 0.50 | 13704 | 1 | 0.50 | 16204 | 4 | 0.53 |
| 14706 | 2 | 0.53 | 58300 | 37 | 0.54 | 44527 | 23 | 0.54 |
| 608121 | 54 | 0.54 | 55502 | 32 | 0.54 | 17306 | 6 | 0.54 |
| 63411 | 39 | 0.54 | osije | 47 | 0.54 | 39113 | 19 | 0.54 |
| 54306 | 31 | 0.54 | 23201 | 8 | 0.54 | 11968 | 65 | 0.54 |
| 47106 | 25 | 0.55 | 52819 | 28 | 0.56 | 36100 | 15 | 0.57 |
| 703156 | 55 | 0.57 | 57311 | 35 | 0.57 | 48101 | 26 | 0.58 |
| 64704 | 40 | 0.58 | 15310 | 3 | 0.59 | 604037 | 53 | 0.59 |
| 11858 | 62 | 0.61 | PAL | 50 | 0.61 | 56300 | 34 | 0.62 |
| 23703 | 9 | 0.62 | djurd | 45 | 0.62 | KIK | 52 | 0.62 |
| bjelo | 43 | 0.62 | 26505 | 11 | 0.63 | daruv | 44 | 0.63 |
| 25212 | 10 | 0.66 | 55706 | 33 | 0.68 | 58113 | 36 | 0.70 |
| 66519 | 41 | 0.70 | 16414 | 5 | 0.71 | 17809 | 7 | 0.76 |
| AVERAGE: | | 0.49 | | | | | | |

Table 12.2a. Test statistics for harmonization control of the series system of Serbia and near border series from Croatia, Hungary, Romania

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| BPT | 10 | 234.72 | VBA | 28 | 114.12 | ORA | 37 | 101.78 |
| SEN | 8 | 98.22 | SNM | 40 | 95.87 | BBA | 24 | 92.09 |
| NEG | 23 | 86.21 | BAJ | 3 | 76.47 | BEC | 7 | 72.28 |
| VGR | 17 | 66.04 | KRS | 30 | 64.94 | KRG | 21 | 64.27 |
| VRS | 13 | 55.31 | OSI | 1 | 54.81 | ZRE | 12 | 54.46 |
| SOM | 6 | 50.85 | SPL | 20 | 50.28 | ZAG | 22 | 45.46 |
| KIK | 9 | 45.15 | NSA | 11 | 43.55 | CAL | 34 | 39.89 |
| KRV | 27 | 39.86 | ALE | 32 | 36.90 | VAL | 2 | 35.80 |
| TIM | 39 | 34.78 | REK | 29 | 33.57 | DTS | 36 | 32.06 |
| ZAJ | 33 | 31.43 | VLJ | 19 | 31.42 | BGD | 16 | 29.59 |
| ZLA | 25 | 28.87 | POZ | 26 | 26.75 | BCL | 35 | 24.45 |
| PAL | 5 | 23.81 | BAN | 38 | 23.49 | LJU | 18 | 22.16 |
| CUP | 31 | 20.95 | LOZ | 14 | 18.71 | SRM | 15 | 16.75 |
| SZE | 4 | 8.07 | | | | | | |
| AVERAGE: | | 53.15 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| VBA | 28 | 736.24 | BBA | 24 | 274.57 | SZE | 4 | 219.79 |
| VAL | 2 | 207.29 | BEC | 7 | 202.55 | NEG | 23 | 174.58 |
| LOZ | 14 | 169.59 | SEN | 8 | 165.08 | KRV | 27 | 158.57 |
| BPT | 10 | 146.23 | ZAG | 22 | 131.11 | LJU | 18 | 116.24 |
| SOM | 6 | 114.72 | KRG | 21 | 114.00 | TIM | 39 | 112.15 |
| OSI | 1 | 110.68 | KIK | 9 | 110.13 | SNM | 40 | 100.87 |
| BAN | 38 | 98.35 | ORA | 37 | 88.48 | NSA | 11 | 87.98 |
| CAL | 34 | 76.71 | VLJ | 19 | 76.19 | POZ | 26 | 75.01 |
| KRS | 30 | 64.31 | PAL | 5 | 61.81 | ZRE | 12 | 61.35 |
| ZLA | 25 | 59.40 | SPL | 20 | 53.14 | REK | 29 | 47.79 |
| ALE | 32 | 47.78 | VRS | 13 | 46.48 | BGD | 16 | 43.97 |
| VGR | 17 | 41.85 | DTS | 36 | 39.68 | ZAJ | 33 | 33.10 |
| BCL | 35 | 30.63 | SRM | 15 | 26.61 | BAJ | 3 | 24.79 |
| CUP | 31 | 19.96 | | | | | | |
| AVERAGE: | | 114.24 | | | | | | |

Table 12.2b. Representativity statistics for the annual series system of Serbia and near border series from Croatia, Hungary, Romania (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| LJU | 18 | 0.14 | ZAJ | 33 | 0.18 | VLJ | 19 | 0.23 |
| DTS | 36 | 0.29 | LOZ | 14 | 0.29 | CAL | 34 | 0.29 |
| POZ | 26 | 0.29 | BCL | 35 | 0.30 | ZAG | 22 | 0.31 |
| ZLA | 25 | 0.32 | VAL | 2 | 0.33 | NEG | 23 | 0.35 |
| BAN | 38 | 0.35 | SPL | 20 | 0.36 | ALE | 32 | 0.37 |
| BBA | 24 | 0.39 | VBA | 28 | 0.39 | KRV | 27 | 0.44 |
| CUP | 31 | 0.45 | SOM | 6 | 0.45 | KRG | 21 | 0.46 |
| KRS | 30 | 0.47 | BGD | 16 | 0.47 | SRM | 15 | 0.48 |
| REK | 29 | 0.49 | VGR | 17 | 0.49 | SNM | 40 | 0.50 |
| NSA | 11 | 0.50 | BAJ | 3 | 0.51 | ORA | 37 | 0.52 |
| PAL | 5 | 0.53 | VRS | 13 | 0.54 | SEN | 8 | 0.57 |
| OSI | 1 | 0.57 | BPT | 10 | 0.59 | ZRE | 12 | 0.61 |
| BEC | 7 | 0.61 | TIM | 39 | 0.64 | KIK | 9 | 0.67 |
| SZE | 4 | 0.70 | | | | | | |
| AVERAGE: | | 0.44 | | | | | | |

Table 12.3a. Test statistics for harmonization control of the series system of Romania and near border series from Serbia, Hungary, Ukraine

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 709352 | 92 | 178.74 | 511349 | 40 | 173.49 | 714623 | 95 | 162.67 |
| 523530 | 46 | 155.36 | 453344 | 28 | 133.35 | 632432 | 79 | 124.79 |
| 618518 | 75 | 120.22 | 445718 | 26 | 108.87 | 617637 | 74 | 107.90 |
| 414352 | 13 | 106.83 | 456526 | 29 | 106.63 | 747356 | 101 | 103.12 |
| 430608 | 18 | 98.86 | 523328 | 45 | 98.11 | 406421 | 8 | 96.78 |
| 740330 | 99 | 93.83 | 758355 | 104 | 93.06 | 506422 | 35 | 91.01 |
| 530535 | 53 | 88.13 | 347357 | 2 | 88.03 | 359257 | 5 | 83.86 |
| 656621 | 89 | 83.86 | 349835 | 3 | 83.68 | 542532 | 59 | 83.63 |
| 635658 | 81 | 82.76 | 346452 | 1 | 81.50 | 655522 | 86 | 80.71 |
| 444417 | 25 | 76.85 | 413838 | 12 | 72.09 | 438238 | 20 | 71.00 |
| 502141 | 33 | 70.21 | 523108 | 44 | 67.55 | 525323 | 49 | 66.39 |
| 436447 | 19 | 64.90 | 13295 | 111 | 64.42 | 632130 | 77 | 64.27 |
| 408800 | 10 | 63.96 | 606705 | 69 | 63.65 | 710736 | 93 | 62.43 |
| 13285 | 112 | 61.32 | 501252 | 32 | 61.18 | 352557 | 4 | 60.99 |
| 417530 | 15 | 60.16 | 711305 | 94 | 59.91 | 614740 | 73 | 57.17 |
| 751555 | 103 | 56.12 | 525358 | 50 | 54.98 | 546115 | 60 | 53.32 |
| 639744 | 82 | 52.35 | 551459 | 62 | 51.77 | 507158 | 36 | 51.60 |
| 703156 | 90 | 51.13 | 415816 | 14 | 50.64 | 500432 | 31 | 50.55 |
| 33634 | 115 | 50.01 | 741640 | 100 | 49.80 | 441757 | 22 | 48.49 |
| 655650 | 87 | 48.35 | 359521 | 6 | 48.32 | 439534 | 21 | 47.11 |
| 611355 | 71 | 46.76 | 739615 | 98 | 46.68 | 509940 | 39 | 46.24 |
| 428307 | 17 | 46.06 | 553254 | 65 | 45.81 | 33658 | 116 | 44.70 |
| 509441 | 37 | 44.52 | 523703 | 47 | 44.44 | 647334 | 85 | 43.67 |
| 642540 | 83 | 43.25 | 452452 | 27 | 42.81 | 551716 | 64 | 42.79 |
| 66519 | 105 | 41.32 | 608121 | 70 | 41.06 | 530801 | 54 | 39.18 |
| 557334 | 66 | 38.69 | 600608 | 67 | 37.30 | 538416 | 55 | 37.21 |
| 748253 | 102 | 36.77 | 604037 | 68 | 36.57 | 539357 | 56 | 36.33 |
| 444127 | 24 | 36.22 | 13173 | 114 | 35.78 | 511849 | 41 | 34.91 |
| 401321 | 7 | 34.88 | 632229 | 78 | 34.58 | 622544 | 76 | 34.07 |
| 515231 | 42 | 34.04 | 517507 | 43 | 32.47 | 634322 | 80 | 31.11 |
| 13183 | 113 | 30.20 | 407500 | 9 | 29.98 | 525215 | 48 | 29.71 |
| 502317 | 34 | 28.74 | 33647 | 118 | 28.46 | 528518 | 52 | 27.43 |
| 708430 | 91 | 26.70 | 73302 | 108 | 23.16 | 509649 | 38 | 23.06 |
| 13174 | 110 | 22.94 | 64704 | 106 | 22.86 | 58300 | 109 | 21.84 |
| 527527 | 51 | 21.77 | 722657 | 96 | 21.64 | 548409 | 61 | 20.58 |
| 412721 | 11 | 20.05 | 656555 | 88 | 19.11 | 57311 | 107 | 17.84 |
| 33638 | 117 | 17.34 | 425606 | 16 | 16.81 | 737439 | 97 | 16.77 |
| 443639 | 23 | 16.27 | 541601 | 58 | 16.11 | 551621 | 63 | 15.75 |
| 541154 | 57 | 15.40 | 646247 | 84 | 14.76 | 33657 | 119 | 14.07 |
| 457600 | 30 | 12.78 | 614436 | 72 | 11.77 | | | |

AVERAGE: 55.77

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|--------|-------|---------|--------|-------|--------|--------|-------|--------|
| 417530 | 15 | 1343.37 | 444417 | 25 | 954.22 | 436447 | 19 | 745.45 |
| 656621 | 89 | 654.60 | 500432 | 31 | 644.76 | 525358 | 50 | 520.22 |
| 635658 | 81 | 437.55 | 509441 | 37 | 364.88 | 58300 | 109 | 359.69 |
| 740330 | 99 | 359.38 | 502317 | 34 | 355.86 | 710736 | 93 | 330.91 |
| 622544 | 76 | 327.55 | 553254 | 65 | 321.88 | 352557 | 4 | 320.33 |
| 501252 | 32 | 294.02 | 456526 | 29 | 293.97 | 548409 | 61 | 268.35 |
| 655650 | 87 | 248.46 | 517507 | 43 | 239.89 | 714623 | 95 | 229.46 |
| 708430 | 91 | 214.64 | 346452 | 1 | 212.70 | 408800 | 10 | 205.31 |
| 530535 | 53 | 203.03 | 722657 | 96 | 200.76 | 639744 | 82 | 189.97 |
| 546115 | 60 | 188.51 | 642540 | 83 | 182.96 | 413838 | 12 | 180.39 |
| 453344 | 28 | 175.76 | 66519 | 105 | 172.47 | 634322 | 80 | 170.61 |
| 542532 | 59 | 168.95 | 528518 | 52 | 167.45 | 443639 | 23 | 161.74 |
| 614740 | 73 | 160.69 | 541154 | 57 | 153.76 | 445718 | 26 | 153.72 |
| 349835 | 3 | 152.61 | 523530 | 46 | 149.12 | 425606 | 16 | 148.06 |
| 33638 | 117 | 144.97 | 414352 | 13 | 142.13 | 401321 | 7 | 140.93 |
| 608121 | 70 | 138.38 | 711305 | 94 | 137.54 | 606705 | 69 | 134.34 |
| 428307 | 17 | 132.11 | 441757 | 22 | 130.94 | 523328 | 45 | 130.86 |
| 57311 | 107 | 130.70 | 415816 | 14 | 122.37 | 739615 | 98 | 119.12 |

| | | | | | | | | |
|----------|-----|--------|--------|-----|--------|--------|-----|--------|
| 13174 | 110 | 118.40 | 502141 | 33 | 117.60 | 703156 | 90 | 115.95 |
| 741640 | 100 | 114.00 | 617637 | 74 | 113.74 | 33634 | 115 | 110.91 |
| 747356 | 101 | 110.76 | 359521 | 6 | 108.54 | 748253 | 102 | 106.81 |
| 511849 | 41 | 99.36 | 632432 | 79 | 97.14 | 656555 | 88 | 96.24 |
| 406421 | 8 | 95.60 | 709352 | 92 | 93.78 | 647334 | 85 | 92.08 |
| 557334 | 66 | 89.90 | 600608 | 67 | 89.18 | 439534 | 21 | 83.82 |
| 359257 | 5 | 79.60 | 509649 | 38 | 77.61 | 444127 | 24 | 76.35 |
| 539357 | 56 | 75.93 | 655522 | 86 | 75.33 | 646247 | 84 | 73.14 |
| 737439 | 97 | 71.70 | 523108 | 44 | 69.90 | 506422 | 35 | 69.52 |
| 33647 | 118 | 69.51 | 614436 | 72 | 69.08 | 604037 | 68 | 68.56 |
| 551716 | 64 | 67.15 | 13285 | 112 | 66.78 | 13183 | 113 | 62.79 |
| 525215 | 48 | 62.06 | 73302 | 108 | 61.67 | 13295 | 111 | 57.86 |
| 452452 | 27 | 57.62 | 507158 | 36 | 57.12 | 751555 | 103 | 55.90 |
| 13173 | 114 | 54.81 | 551621 | 63 | 50.66 | 347357 | 2 | 50.49 |
| 430608 | 18 | 48.86 | 33657 | 119 | 48.78 | 551459 | 62 | 48.61 |
| 523703 | 47 | 46.72 | 509940 | 39 | 46.49 | 541601 | 58 | 46.37 |
| 525323 | 49 | 45.25 | 407500 | 9 | 44.34 | 758355 | 104 | 42.52 |
| 457600 | 30 | 42.40 | 511349 | 40 | 38.61 | 412721 | 11 | 33.14 |
| 438238 | 20 | 32.33 | 632229 | 78 | 29.43 | 33658 | 116 | 26.60 |
| 538416 | 55 | 24.76 | 515231 | 42 | 23.80 | 611355 | 71 | 22.59 |
| 64704 | 106 | 22.28 | 527527 | 51 | 20.87 | 618518 | 75 | 16.53 |
| 632130 | 77 | 16.29 | 530801 | 54 | 9.37 | | | |
| AVERAGE: | | 160.88 | | | | | | |

Table 12.3b. Representativity statistics for the annual series system of Romania and near border series from Serbia, Hungary, Ukraine (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 656555 | 88 | 0.00 | 737439 | 97 | 0.07 | 33657 | 119 | 0.11 |
| 551621 | 63 | 0.19 | 632229 | 78 | 0.23 | 646247 | 84 | 0.23 |
| 515231 | 42 | 0.26 | 349835 | 3 | 0.26 | 527527 | 51 | 0.27 |
| 523530 | 46 | 0.27 | 747356 | 101 | 0.30 | 538416 | 55 | 0.31 |
| 528518 | 52 | 0.32 | 523328 | 45 | 0.35 | 525358 | 50 | 0.36 |
| 635658 | 81 | 0.36 | 525323 | 49 | 0.37 | 523703 | 47 | 0.37 |
| 33638 | 117 | 0.37 | 441757 | 22 | 0.37 | 517507 | 43 | 0.37 |
| 541154 | 57 | 0.38 | 502317 | 34 | 0.39 | 632130 | 77 | 0.40 |
| 509940 | 39 | 0.40 | 501252 | 32 | 0.40 | 452452 | 27 | 0.41 |
| 507158 | 36 | 0.42 | 33634 | 115 | 0.42 | 33647 | 118 | 0.43 |
| 58300 | 109 | 0.43 | 530535 | 53 | 0.43 | 722657 | 96 | 0.44 |
| 546115 | 60 | 0.44 | 617637 | 74 | 0.44 | 539357 | 56 | 0.44 |
| 525215 | 48 | 0.45 | 604037 | 68 | 0.45 | 614740 | 73 | 0.47 |
| 73302 | 108 | 0.47 | 523108 | 44 | 0.47 | 551716 | 64 | 0.47 |
| 509441 | 37 | 0.48 | 553254 | 65 | 0.48 | 758355 | 104 | 0.49 |
| 506422 | 35 | 0.49 | 13174 | 110 | 0.49 | 557334 | 66 | 0.50 |
| 656621 | 89 | 0.50 | 606705 | 69 | 0.50 | 708430 | 91 | 0.50 |
| 714623 | 95 | 0.51 | 530801 | 54 | 0.51 | 608121 | 70 | 0.52 |
| 511849 | 41 | 0.53 | 655522 | 86 | 0.53 | 639744 | 82 | 0.53 |
| 703156 | 90 | 0.54 | 13295 | 111 | 0.54 | 614436 | 72 | 0.54 |
| 425606 | 16 | 0.54 | 622544 | 76 | 0.54 | 709352 | 92 | 0.55 |
| 740330 | 99 | 0.55 | 511349 | 40 | 0.56 | 634322 | 80 | 0.56 |
| 711305 | 94 | 0.56 | 647334 | 85 | 0.56 | 457600 | 30 | 0.56 |
| 415816 | 14 | 0.57 | 541601 | 58 | 0.57 | 548409 | 61 | 0.57 |
| 64704 | 106 | 0.57 | 413838 | 12 | 0.57 | 642540 | 83 | 0.57 |
| 655650 | 87 | 0.57 | 509649 | 38 | 0.57 | 445718 | 26 | 0.58 |
| 453344 | 28 | 0.59 | 33658 | 116 | 0.59 | 57311 | 107 | 0.60 |
| 346452 | 1 | 0.60 | 13183 | 113 | 0.60 | 500432 | 31 | 0.60 |
| 748253 | 102 | 0.60 | 751555 | 103 | 0.61 | 551459 | 62 | 0.61 |
| 542532 | 59 | 0.61 | 401321 | 7 | 0.61 | 438238 | 20 | 0.61 |
| 611355 | 71 | 0.61 | 600608 | 67 | 0.62 | 408800 | 10 | 0.62 |
| 632432 | 79 | 0.63 | 618518 | 75 | 0.63 | 414352 | 13 | 0.64 |
| 13173 | 114 | 0.65 | 444417 | 25 | 0.65 | 456526 | 29 | 0.65 |
| 444127 | 24 | 0.65 | 13285 | 112 | 0.65 | 412721 | 11 | 0.66 |
| 428307 | 17 | 0.66 | 352557 | 4 | 0.67 | 710736 | 93 | 0.67 |
| 739615 | 98 | 0.67 | 443639 | 23 | 0.67 | 359257 | 5 | 0.68 |
| 741640 | 100 | 0.68 | 359521 | 6 | 0.69 | 66519 | 105 | 0.69 |
| 347357 | 2 | 0.69 | 502141 | 33 | 0.70 | 436447 | 19 | 0.72 |
| 406421 | 8 | 0.74 | 417530 | 15 | 0.75 | 430608 | 18 | 0.75 |
| 439534 | 21 | 0.76 | 407500 | 9 | 0.81 | | | |
| AVERAGE: | | 0.51 | | | | | | |

Table 12.4a. Test statistics for harmonization control of the series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 50 | 50 | 86.32 | 48 | 48 | 61.89 | 52 | 52 | 61.62 |
| 53 | 53 | 58.26 | 7 | 7 | 55.26 | 1 | 1 | 55.26 |
| 43 | 43 | 50.68 | 14 | 14 | 50.53 | 20 | 20 | 49.93 |
| 49 | 49 | 48.61 | 24 | 24 | 47.64 | 29 | 29 | 46.65 |
| 19 | 19 | 44.20 | 13 | 13 | 39.85 | 41 | 41 | 38.89 |
| 11 | 11 | 38.53 | 9 | 9 | 37.45 | 30 | 30 | 36.89 |
| 33 | 33 | 36.08 | 15 | 15 | 35.59 | 8 | 8 | 35.17 |
| 23 | 23 | 33.74 | 51 | 51 | 33.14 | 39 | 39 | 31.04 |
| 12 | 12 | 30.75 | 10 | 10 | 28.95 | 40 | 40 | 28.43 |
| 2 | 2 | 27.48 | 35 | 35 | 25.64 | 32 | 32 | 25.62 |
| 36 | 36 | 24.93 | 27 | 27 | 24.76 | 4 | 4 | 24.57 |
| 5 | 5 | 24.20 | 31 | 31 | 24.10 | 16 | 16 | 23.90 |
| 22 | 22 | 23.62 | 45 | 45 | 23.59 | 25 | 25 | 22.73 |
| 47 | 47 | 22.41 | 42 | 42 | 22.03 | 44 | 44 | 20.30 |
| 26 | 26 | 20.23 | 3 | 3 | 19.72 | 6 | 6 | 19.24 |
| 46 | 46 | 18.57 | 21 | 21 | 17.79 | 34 | 34 | 17.72 |
| 38 | 38 | 17.70 | 37 | 37 | 17.61 | 28 | 28 | 15.92 |
| 17 | 17 | 14.94 | 18 | 18 | 14.04 | | | |
| AVERAGE: | | 33.11 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 52 | 52 | 444.85 | 7 | 7 | 334.00 | 46 | 46 | 303.95 |
| 14 | 14 | 223.54 | 17 | 17 | 205.75 | 5 | 5 | 202.06 |
| 6 | 6 | 197.07 | 9 | 9 | 190.03 | 50 | 50 | 166.54 |
| 24 | 24 | 162.30 | 27 | 27 | 162.21 | 48 | 48 | 141.69 |
| 30 | 30 | 131.37 | 34 | 34 | 128.22 | 32 | 32 | 120.53 |
| 45 | 45 | 111.67 | 53 | 53 | 102.46 | 35 | 35 | 98.66 |
| 43 | 43 | 93.92 | 36 | 36 | 91.48 | 44 | 44 | 91.21 |
| 21 | 21 | 87.32 | 3 | 3 | 77.52 | 19 | 19 | 74.38 |
| 20 | 20 | 73.65 | 39 | 39 | 73.39 | 51 | 51 | 67.68 |
| 13 | 13 | 67.54 | 25 | 25 | 67.28 | 22 | 22 | 61.62 |
| 40 | 40 | 59.36 | 41 | 41 | 57.06 | 47 | 47 | 55.43 |
| 18 | 18 | 54.98 | 49 | 49 | 52.97 | 11 | 11 | 49.12 |
| 23 | 23 | 48.27 | 37 | 37 | 45.57 | 38 | 38 | 45.54 |
| 2 | 2 | 44.77 | 10 | 10 | 43.19 | 33 | 33 | 42.05 |
| 4 | 4 | 41.60 | 1 | 1 | 41.55 | 31 | 31 | 39.91 |
| 42 | 42 | 38.95 | 26 | 26 | 34.64 | 12 | 12 | 33.21 |
| 29 | 29 | 28.31 | 15 | 15 | 24.39 | 8 | 8 | 20.91 |
| 16 | 16 | 17.40 | 28 | 28 | 10.90 | | | |
| AVERAGE: | | 99.70 | | | | | | |

Table 12.4b. Representativity statistics for the annual series system of Ukraine and near border series from Romania, Hungary, Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 36 | 36 | 0.00 | 33 | 33 | 0.03 | 21 | 21 | 0.15 |
| 48 | 48 | 0.19 | 39 | 39 | 0.23 | 38 | 38 | 0.26 |
| 40 | 40 | 0.26 | 28 | 28 | 0.26 | 52 | 52 | 0.27 |
| 51 | 51 | 0.28 | 47 | 47 | 0.31 | 32 | 32 | 0.32 |
| 14 | 14 | 0.33 | 37 | 37 | 0.34 | 22 | 22 | 0.34 |
| 10 | 10 | 0.36 | 53 | 53 | 0.38 | 23 | 23 | 0.40 |
| 16 | 16 | 0.40 | 30 | 30 | 0.41 | 11 | 11 | 0.42 |
| 4 | 4 | 0.43 | 45 | 45 | 0.43 | 44 | 44 | 0.44 |
| 29 | 29 | 0.45 | 50 | 50 | 0.45 | 46 | 46 | 0.45 |
| 9 | 9 | 0.45 | 2 | 2 | 0.46 | 42 | 42 | 0.46 |
| 6 | 6 | 0.47 | 35 | 35 | 0.47 | 1 | 1 | 0.47 |
| 7 | 7 | 0.48 | 31 | 31 | 0.48 | 41 | 41 | 0.50 |
| 8 | 8 | 0.50 | 20 | 20 | 0.51 | 13 | 13 | 0.51 |
| 17 | 17 | 0.52 | 25 | 25 | 0.52 | 5 | 5 | 0.54 |
| 34 | 34 | 0.54 | 18 | 18 | 0.54 | 26 | 26 | 0.55 |
| 3 | 3 | 0.55 | 15 | 15 | 0.57 | 19 | 19 | 0.57 |
| 43 | 43 | 0.59 | 24 | 24 | 0.61 | 27 | 27 | 0.64 |
| 12 | 12 | 0.65 | 49 | 49 | 0.68 | | | |
| AVERAGE: | | 0.42 | | | | | | |

Table 12.5a. Test statistics for harmonization control of the series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic

I. TEST STATISTICS FOR SERIES INHOMOGENEITY

Null hypothesis: the examined series are homogeneous.

Critical value (significance level 0.05): 20.86

Test statistics (TS) can be compared to the critical value.

The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 11779 | 49 | 127.46 | 6702 | 45 | 94.83 | 690 | 38 | 93.82 |
| 6707 | 46 | 88.37 | 11876 | 10 | 78.28 | 11946 | 17 | 77.63 |
| 23703 | 29 | 71.62 | 6809 | 47 | 71.08 | 6518 | 41 | 68.91 |
| 11868 | 8 | 64.95 | 61709 | 33 | 58.83 | 625 | 35 | 58.27 |
| 11785 | 51 | 57.98 | 11766 | 50 | 56.20 | 11858 | 5 | 56.12 |
| 11874 | 9 | 48.50 | 11902 | 11 | 40.19 | 44121 | 28 | 40.07 |
| 51705 | 30 | 38.77 | 6507 | 39 | 38.35 | 11938 | 16 | 34.33 |
| 11803 | 1 | 34.21 | 6628 | 44 | 33.12 | 33514 | 24 | 32.23 |
| 11993 | 22 | 30.44 | 11867 | 7 | 30.37 | 11774 | 48 | 30.15 |
| 650 | 36 | 28.48 | 33631 | 26 | 27.57 | 6605 | 42 | 25.02 |
| 11866 | 6 | 23.83 | 6618 | 43 | 23.24 | 11927 | 14 | 22.40 |
| 23201 | 32 | 21.94 | 33634 | 27 | 21.40 | 33517 | 25 | 21.37 |
| 11806 | 2 | 21.37 | 11813 | 3 | 21.05 | 6513 | 40 | 19.76 |
| 11910 | 13 | 19.50 | 11961 | 18 | 18.05 | 11819 | 4 | 17.90 |
| 11978 | 21 | 16.31 | 600 | 34 | 15.52 | 11903 | 12 | 15.30 |
| 11977 | 20 | 14.88 | 33511 | 23 | 14.41 | 660 | 37 | 13.13 |
| 53101 | 31 | 10.49 | 11782 | 53 | 8.56 | 11931 | 15 | 8.20 |
| 11968 | 19 | 7.74 | 11787 | 52 | 6.87 | | | |
| AVERAGE: | | 38.10 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11902 | 11 | 437.66 | 6702 | 45 | 393.59 | 6628 | 44 | 372.61 |
| 11946 | 17 | 353.30 | 44121 | 28 | 286.71 | 33511 | 23 | 276.57 |
| 23703 | 29 | 248.57 | 6507 | 39 | 229.99 | 11866 | 6 | 223.43 |
| 61709 | 33 | 219.73 | 11819 | 4 | 216.34 | 690 | 38 | 206.72 |
| 6618 | 43 | 164.29 | 33634 | 27 | 138.92 | 11779 | 49 | 132.65 |
| 6605 | 42 | 127.19 | 11876 | 10 | 126.44 | 6513 | 40 | 122.94 |
| 11910 | 13 | 120.91 | 11858 | 5 | 106.94 | 11785 | 51 | 106.48 |
| 11867 | 7 | 100.16 | 51705 | 30 | 96.93 | 11813 | 3 | 96.58 |
| 11874 | 9 | 87.76 | 6809 | 47 | 81.58 | 33517 | 25 | 80.43 |
| 6707 | 46 | 79.77 | 11868 | 8 | 76.86 | 660 | 37 | 76.77 |
| 6518 | 41 | 75.30 | 11774 | 48 | 73.47 | 53101 | 31 | 67.13 |
| 33514 | 24 | 67.03 | 11803 | 1 | 49.71 | 625 | 35 | 48.27 |
| 11961 | 18 | 46.35 | 11993 | 22 | 45.12 | 11766 | 50 | 42.79 |
| 11968 | 19 | 40.30 | 11938 | 16 | 38.41 | 11978 | 21 | 36.19 |
| 600 | 34 | 35.92 | 23201 | 32 | 35.71 | 11806 | 2 | 33.62 |
| 11903 | 12 | 32.73 | 33631 | 26 | 32.56 | 11927 | 14 | 31.36 |
| 650 | 36 | 23.69 | 11977 | 20 | 20.70 | 11931 | 15 | 16.39 |
| 11782 | 53 | 13.63 | 11787 | 52 | 12.23 | | | |
| AVERAGE: | | 119.01 | | | | | | |

Table 12.5b. Representativity statistics for the annual series system of Slovakia and near border series from Hungary, Ukraine, Poland, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 11787 | 52 | 0.02 | 11931 | 15 | 0.04 | 11910 | 13 | 0.09 |
| 11876 | 10 | 0.10 | 53101 | 31 | 0.13 | 6618 | 43 | 0.16 |
| 6605 | 42 | 0.18 | 11946 | 17 | 0.19 | 11874 | 9 | 0.20 |
| 11902 | 11 | 0.22 | 6507 | 39 | 0.22 | 11927 | 14 | 0.23 |
| 11961 | 18 | 0.26 | 650 | 36 | 0.26 | 44121 | 28 | 0.27 |
| 33514 | 24 | 0.27 | 6628 | 44 | 0.32 | 11813 | 3 | 0.34 |
| 11806 | 2 | 0.35 | 660 | 37 | 0.37 | 11868 | 8 | 0.37 |
| 33634 | 27 | 0.39 | 600 | 34 | 0.39 | 11766 | 50 | 0.39 |
| 51705 | 30 | 0.40 | 11819 | 4 | 0.40 | 11977 | 20 | 0.41 |
| 11779 | 49 | 0.41 | 625 | 35 | 0.42 | 11938 | 16 | 0.43 |
| 6809 | 47 | 0.43 | 11866 | 6 | 0.44 | 33631 | 26 | 0.44 |
| 6707 | 46 | 0.46 | 11903 | 12 | 0.46 | 61709 | 33 | 0.46 |
| 11978 | 21 | 0.47 | 33511 | 23 | 0.47 | 23201 | 32 | 0.49 |
| 6513 | 40 | 0.50 | 11782 | 53 | 0.51 | 690 | 38 | 0.55 |
| 11803 | 1 | 0.55 | 11968 | 19 | 0.55 | 6702 | 45 | 0.56 |
| 11993 | 22 | 0.57 | 11785 | 51 | 0.59 | 11867 | 7 | 0.59 |
| 6518 | 41 | 0.59 | 11858 | 5 | 0.60 | 23703 | 29 | 0.66 |
| 33517 | 25 | 0.66 | 11774 | 48 | 0.67 | | | |
| AVERAGE: | | 0.39 | | | | | | |

Table 12.6a. Test statistics for harmonization control of the series system of Poland and near border series from Ukraine, Slovakia, Czech Republic

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|-------|--------|-------|-------|--------|-------|-------|
| 06707 | 20 | 97.92 | 11874 | 36 | 84.17 | 00690 | 9 | 74.34 |
| 00575 | 3 | 71.72 | 1strn | 29 | 70.56 | 06518 | 15 | 68.91 |
| 1fren | 31 | 66.70 | 11868 | 35 | 64.95 | 06507 | 13 | 62.58 |
| 00625 | 6 | 58.27 | 11876 | 37 | 56.91 | 1cerv | 30 | 56.20 |
| 05508 | 11 | 51.11 | 06809 | 21 | 48.46 | 1hole | 28 | 46.80 |
| 06702 | 19 | 44.58 | 06605 | 16 | 38.81 | 05511 | 12 | 37.63 |
| 11866 | 34 | 34.47 | 06628 | 18 | 33.12 | 00580 | 4 | 32.47 |
| 00540 | 1 | 30.22 | 33514 | 27 | 30.19 | 00650 | 7 | 28.48 |
| 33287 | 22 | 27.61 | 00566 | 2 | 27.59 | 33391 | 24 | 27.12 |
| 33398 | 25 | 27.07 | 33392 | 23 | 24.64 | 11938 | 39 | 23.84 |
| 06618 | 17 | 23.24 | 11977 | 41 | 22.26 | 06513 | 14 | 21.07 |
| 05409 | 10 | 20.73 | 33511 | 26 | 17.69 | 11961 | 40 | 15.98 |
| 00660 | 8 | 13.13 | 00600 | 5 | 11.65 | 11993 | 42 | 10.44 |
| 1mosn | 33 | 8.56 | 11931 | 38 | 8.20 | 1lysa | 32 | 7.36 |
| AVERAGE: | | 38.76 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 11866 | 34 | 520.18 | 06605 | 16 | 501.07 | 06702 | 19 | 377.53 |
| 06507 | 13 | 375.46 | 06513 | 14 | 337.26 | 33511 | 26 | 255.61 |
| 00566 | 2 | 231.82 | 1strn | 29 | 215.86 | 06809 | 21 | 187.09 |
| 05409 | 10 | 184.37 | 05508 | 11 | 158.43 | 33514 | 27 | 151.75 |
| 06618 | 17 | 145.97 | 00600 | 5 | 145.66 | 05511 | 12 | 143.73 |
| 06628 | 18 | 141.75 | 00540 | 1 | 136.83 | 00690 | 9 | 126.15 |
| 1fren | 31 | 121.19 | 11876 | 37 | 102.18 | 11868 | 35 | 97.45 |
| 00625 | 6 | 97.42 | 33392 | 23 | 96.31 | 11874 | 36 | 92.62 |
| 00580 | 4 | 90.60 | 33398 | 25 | 84.10 | 1cerv | 30 | 67.61 |
| 06707 | 20 | 62.32 | 06518 | 15 | 61.59 | 00660 | 8 | 59.40 |
| 33287 | 22 | 54.19 | 1hole | 28 | 42.60 | 11961 | 40 | 34.37 |
| 33391 | 24 | 30.42 | 00575 | 3 | 25.35 | 11977 | 41 | 25.13 |
| 00650 | 7 | 25.07 | 11993 | 42 | 20.24 | 11938 | 39 | 18.43 |
| 1mosn | 33 | 17.91 | 11931 | 38 | 15.62 | 1lysa | 32 | 14.49 |
| AVERAGE: | | 135.55 | | | | | | |

Table 12.6b. Representativity statistics for the annual series system of Poland and near border series from Ukraine, Slovakia, Czech Republic (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 1lysa | 32 | 0.02 | 11874 | 36 | 0.03 | 11931 | 38 | 0.04 |
| 11876 | 37 | 0.09 | 06507 | 13 | 0.10 | 06618 | 17 | 0.16 |
| 11961 | 40 | 0.21 | 00650 | 7 | 0.26 | 33398 | 25 | 0.26 |
| 06628 | 18 | 0.32 | 00580 | 4 | 0.33 | 33287 | 22 | 0.33 |
| 06605 | 16 | 0.34 | 00600 | 5 | 0.34 | 00660 | 8 | 0.37 |
| 33391 | 24 | 0.37 | 33514 | 27 | 0.37 | 11868 | 35 | 0.37 |
| 11938 | 39 | 0.38 | 1strn | 29 | 0.38 | 33392 | 23 | 0.38 |
| 1cerv | 30 | 0.39 | 11866 | 34 | 0.40 | 11977 | 41 | 0.41 |
| 00625 | 6 | 0.42 | 11993 | 42 | 0.44 | 00540 | 1 | 0.45 |
| 05409 | 10 | 0.46 | 06809 | 21 | 0.47 | 06707 | 20 | 0.47 |
| 33511 | 26 | 0.49 | 05508 | 11 | 0.50 | 06513 | 14 | 0.50 |
| 1mosn | 33 | 0.51 | 05511 | 12 | 0.52 | 00566 | 2 | 0.52 |
| 1fren | 31 | 0.54 | 06702 | 19 | 0.57 | 00690 | 9 | 0.58 |
| 00575 | 3 | 0.59 | 06518 | 15 | 0.59 | 1hole | 28 | 0.67 |
| AVERAGE: | | 0.38 | | | | | | |

Table 12.7a. Test statistics for harmonization control of the series system of Czech Republic and near border series from Slovakia, Poland

TEST STATISTICS FOR SERIES INHOMOGENEITY
 Null hypothesis: the examined series are homogeneous.
 Critical value (significance level 0.05): 20.86
 Test statistics (TS) can be compared to the critical value.
 The larger TS values are more suspicious!

1. Test Statistics After Homogenization

| Series | Index | TSA | Series | Index | TSA | Series | Index | TSA |
|----------|-------|--------|--------|-------|-------|--------|-------|-------|
| 2 | 2 | 127.46 | 4 | 4 | 66.70 | 3 | 3 | 56.20 |
| 7 | 7 | 43.14 | 15 | 15 | 30.22 | 1 | 1 | 30.15 |
| 9 | 9 | 29.00 | 10 | 10 | 21.34 | 13 | 13 | 20.57 |
| 11 | 11 | 20.27 | 14 | 14 | 19.69 | 17 | 17 | 15.85 |
| 8 | 8 | 15.13 | 12 | 12 | 12.75 | 16 | 16 | 9.90 |
| 6 | 6 | 8.21 | 5 | 5 | 7.36 | | | |
| AVERAGE: | | 31.41 | | | | | | |

2. Test Statistics Before Homogenization

| Series | Index | TSB | Series | Index | TSB | Series | Index | TSB |
|----------|-------|--------|--------|-------|--------|--------|-------|--------|
| 2 | 2 | 460.92 | 17 | 17 | 147.46 | 4 | 4 | 132.73 |
| 15 | 15 | 104.38 | 10 | 10 | 101.47 | 9 | 9 | 98.86 |
| 13 | 13 | 86.97 | 3 | 3 | 74.31 | 12 | 12 | 48.63 |
| 8 | 8 | 45.04 | 1 | 1 | 45.02 | 16 | 16 | 41.58 |
| 14 | 14 | 41.55 | 11 | 11 | 29.75 | 7 | 7 | 27.06 |
| 6 | 6 | 15.66 | 5 | 5 | 11.20 | | | |
| AVERAGE: | | 88.98 | | | | | | |

Table 12.7b. Representativity statistics for the annual series system of Czech Republic and near border series from Slovakia, Poland (1-relative interpolation error)

| Series | Index | RS | Series | Index | RS | Series | Index | RS |
|----------|-------|------|--------|-------|------|--------|-------|------|
| 5 | 5 | 0.02 | 12 | 12 | 0.31 | 9 | 9 | 0.33 |
| 16 | 16 | 0.34 | 8 | 8 | 0.35 | 14 | 14 | 0.38 |
| 11 | 11 | 0.38 | 17 | 17 | 0.39 | 3 | 3 | 0.39 |
| 2 | 2 | 0.41 | 15 | 15 | 0.45 | 10 | 10 | 0.48 |
| 6 | 6 | 0.51 | 13 | 13 | 0.51 | 7 | 7 | 0.52 |
| 4 | 4 | 0.54 | 1 | 1 | 0.67 | | | |
| AVERAGE: | | 0.41 | | | | | | |