



**АРЗЁБИИ КАМБИЗОАТӢ ДАР ТОҶИКИСТОН:
ШАРҲИ МЕТОДОЛОӢ**

**ОЦЕНКА БЕДНОСТИ В ТАДЖИКИСТАНЕ:
МЕТОДОЛОГИЧЕСКАЯ ЗАПИСКА**

**POVERTY MEASUREMENT IN TAJIKISTAN:
A METHODOLOGICAL NOTE**

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Prepared by the Agency on Statistics under the President of Tajikistan
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ACRONYMS AND ABBREVIATIONS

| | |
|---------|--|
| LSMS | Living Standard Measurement Surveys |
| HBS | Household Budget Survey |
| TajStat | Agency on Statistics |
| WB | World Bank |
| MoEDT | Ministry of Economic Development and Trade |

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1 INTRODUCTION

The development of a national methodology for poverty measurement in the Republic of Tajikistan was identified as a key priority in 2005 with the approval of the National Development Strategy of the Government of Tajikistan for 2006-2015. Between 1999 and 2009 the country relied on the Living Standard Measurement Surveys (LSMS) to measure poverty, primarily prepared and financed by the World Bank (WB).

No LSMS surveys were conducted in Tajikistan beyond 2009 however, and the country has not reported poverty estimates based on actual micro-data for the past five years. Since 2009, Tajikistan has relied on estimates of poverty-growth elasticity to project poverty. There are many shortcomings of such an approach, not the least of which is the assumption of distribution-neutral growth, which in turn implies a constant relationship between growth and poverty reduction over time. Recent crises (i.e. the 2006 food crisis, the global financial crisis, the Eurozone crisis, and the 2009 food crisis) have demonstrated that this is not the case. In the midst of these crises, many countries recorded growth and poverty dynamics that were not aligned.

In this note, for the first time the poverty rate of Tajikistan is estimated using a national Household Budget Survey (HBS) from the Agency on Statistics (TajStat). The approach is an internationally-recognized poverty-measurement methodology, and is described in detail in this paper.

The remainder of this note is organized as follows. The construction of the welfare aggregate is discussed, explaining how food and non-food dimensions of consumption are captured in a single aggregate. The discussion then moves to alternative poverty line construction methods, and describes in detail the Cost-of-Basic-Needs method which is adopted in this note for the TajStat HBS. The note concludes with poverty estimation and inequality results.

2 BACKGROUND: OBJECTIVES AND ACTIVITIES

While the approach adopted in the following sections provides an immediate solution to improve the timeliness and reliability of the poverty monitoring system of Tajikistan, it is also part of a medium-term strategy, already under implementation to improve the poverty monitoring capacity of Tajikistan. This strategy is organized in several phases, and aims to gradually improve the quality of the HBS, and of poverty and social statistics produced with it. As each of these phases is implemented, the poverty methodology and subsequent poverty rates will need to be slightly adapted to take into account those changes. Consequently, it will still be critical to establish and strengthen a mechanism to assure coordination and to facilitate consensus regarding the revised numbers. A poverty committee (in Tajikistan, called the Council for Poverty and Middle-Class Measurement), as established in countries such as Mexico, Colombia, Peru among others, is one of the possible institutional designs going forward (Azevedo, 2013).

2.1 Short- and Medium-Term Solutions

TajStat, the Ministry of Economic Development and Trade(MoEDT) and the WB are pursuing a two-pronged approach regarding poverty measurement in Tajikistan, in the framework of the Poverty

Council:

- I. A short-term solution, by which attempts will be made to derive poverty estimates based on the existing HBS;
- II. A mid-term solution, which will involve redesigning of HBS data-entry system, revising the sample, preparing instruction manuals, updating questionnaires with new modules, training of interviewers and supervisors, and estimating poverty with the redesigned HBS.

On the initiative of TajStat, and following the recommendations of World Bank experts and consultants, the “Household Budget Survey Improvement Project” is supporting the developing of a methodology for designing an Integrated Living Standard and Labor Force Survey. Envisioned in this initiative are amendments to questionnaires, updates to the sampling methodology, fieldwork organization, improvements to data management, and the provision of results.

The proposed changes to the HBS methodology are intended to create improved databases, and to ensure timely receipt of results. If achieved, these objectives will result in further improvements in statistical data in Tajikistan. The implementation of the improvement plan of the HBS includes the following activities:

- I. **Data-entry system:** The redesign of a new data-entry system for the HBS has already begun. A beta version based on CSPro was developed in July 2014, and is currently under testing with the TajStat team.
- II. **Sample-frame update:** In the December 2013 World Bank mission, it was agreed that TajStat would lead the redesign of the HBS sample frame using the 2010 Census. The World Bank agreed to provide international experts to revise the proposed work.
- III. **Revised questionnaire:** A redesigned questionnaire has been proposed, and was piloted in Dushanbe in June 2013. A larger-scale instrument test with 500 households was also implemented between July 2013 and August 2013. A review of these results is currently ongoing.
- IV. **Data dissemination and reporting:** In December 2013, the World Bank mission organized training sessions in Dushanbe for TajStat staff on international standards, and tools for micro-data documentation, in addition to archiving and dissemination best practices. The World Bank will continue to assist in the development of these processes.

Expected outputs of the integrated household budget and labor-force survey:

The HBS information will be received **on a constant basis** (quarterly) and will include the following indicators:

- I. Poverty rate (population’s incomes, and expenditures);
- II. Population’s health standard, assessment of health services, and population’s expenditures;
- III. Attendance of educational institutions, and expenditures on education;
- IV. Employment, and unemployment rates;
- V. Migration (internal, external migration, and remittances);
- VI. Food consumption patterns.

New questionnaires for the integrated survey:

- I. Household’s control card (roster);
- II. The diary of household’s food expenditures;

- III. The record-book of household's non-food expenditures;
- IV. Labor force survey;
- V. Housing conditions (including durables);
- VI. Health;
- VII. Education;
- VIII. Land plot and machinery;
- IX. Transfers.

2.2 History of the Tajik HBS

The Household Budget Survey is conducted in Tajikistan by the Agency on Statistics (formerly known as GosKomStat). Created in 1952 by the Soviet authorities, the HBS maintained a 1250-household sample size until 1992. After independence in 1992 and due to the difficult political, economic, and financial situation of the country, the sample size of the HBS was reduced to 600 households.

With improvements in the political and economic situation of the country, as well as an increase in the consumer demand for HBS information, starting in 2000 the quantity of surveyed households rose to 925. Starting on 1 October 2008, by decree #497 of the Government of Tajikistan, the number of surveyed households in the HBS increased to 3000. Of these, 1150 households were in urban areas and 1850 households were in rural areas.

Since January 2009, the HBS has been conducted quarterly by TajStat, each year with the coverage of 3,000 households. The sample was designed to be representative on a national, urban/rural and regional level in each quarter. The survey unit is the household, which is defined as a group or set of persons living together, and for whom a budget and place of residence¹ is common. Relational links are not a mandatory condition.

The HBS is currently conducted on a permanent basis, and participation is voluntary. The information resulting from the HBS constitute one branch of the socio-economic statistics that are used to study living standards and/or the material condition of the population. Results of the survey provide an impartial picture of the status and structure of income, expenditure, consumption, and savings of different groups of the population. These allow analysis of important indicators by characteristics including gender, age, and composition of the family.

2.3 Contents of the Tajik HBS

Since 2009, the HBS has covered all 5 regions of Tajikistan. The sample distribution across regions is as follows²:

- I. Dushanbe – 400 Households
- II. Sogd – 860 Households
- III. Khatlon – 900 Households
- IV. GBAO – 240 Households
- V. DRS –600 Households

The HBS survey instruments consist of three types of household questionnaires:

¹ A house, apartment, room, set of rooms that have separate exit to the street, or to the common premises

²The sampling distribution remains the same by 2012

- I. The diary for household income and expenditures, supported by monthly journal, includes questionnaire forms 1, 8;
- II. The quarterly questionnaire on household supply, consumption of agricultural produce, fodder and fuel, includes questionnaire forms 2, 3;
- III. The annual household questionnaire, which includes questionnaire forms 4, 5, 6, 7;

The following information is collected:

- I. Household composition, and demographic characteristics;
- II. Economic activity in both agricultural, and non-agricultural sectors;
- III. Housing and infrastructure;
- IV. Expenditures and consumption on food, and nonfood items;
- V. Income;
- VI. Household supply and consumption of agricultural produce, fodder and fuel, livestock, and land plot use.

In addition to characterizing the living standards of different groups of the population, HBS data are widely used in different economic-statistical measurements, for example:

- I. In calculating the Gross Domestic Product and its composition;
- II. In calculating the real income of the population;
- III. In preparing production balances, and the uses of agricultural production;
- IV. In calculating cost-of-living indexes (consumer price index (CPI) on goods and services);
- V. In the System of National Accounts, in which indicators relating to households are important components.

2.4 Comparison with Previous Methodologies

The poverty measurement methodology adopted in this note builds on the initial work of Sulla and Giovanni (2013) which proposed a HBS-based poverty measurement methodology using data from the second and third quarters of 2012. The authors only had access to two quarters of data, and the initial work was therefore provisional and limited in scope. Constraint on data availability could potentially bias estimates of both the value of the poverty line and poverty rates. Limited data coverage is especially problematic in the context of very strong seasonality, as is the case in Tajikistan. In contrast, the results presented in this note use four quarters of data to estimate the value of the poverty line as well as the poverty rate: Q3 2012, Q4 2012, Q1 2013 and Q2 2013.

2.4.1 Advantages of the proposed methodology and limitations of the current HBS

The proposed methodology has many advantages over the previously adopted LSMS-based poverty monitoring method:

- I. It relies in a survey that is country-owned, and which has been continuously implemented since January 2009;
- II. The 3,000-household size of the HBS should provide a much greater ability to estimate changes in poverty in Tajikistan, compared to the 1,500-household size of the 2009 Tajikistan Living Standards Survey;
- III. The HBS is a continuous survey, meaning that the same households are visited on a quarterly basis. Such protocol often improves consumption estimates each quarter, as it avoids recall biases (underreporting or exaggeration of the consumption of selected items).

It is also important to understand some of the limitations, in particular³:

- I. The methodology outlined here is not strictly comparable with the poverty, vulnerability, and middle class numbers reported in the past, and will represent a structural break of the reported series;
- II. The data-entry system of the HBS is relatively outdated;
- III. The HBS sample frame is drawn from the 2000 population census, despite the availability of more recent census data from 2010;
- IV. The questionnaire does not reflect all of the latest policy needs of the country, and the consumption module can be improved;
- V. Field work protocols and supervision can be improved;
- VI. Data access and dissemination practices can be improved.

2.4.2 Data

The present analysis of HBS survey data focuses on the development of a suitable methodology to carry out the very first round of HBS-based poverty estimates in Tajikistan, and considerable effort has been placed on checking data quality issues. Unlike the data from the earlier years of HBS, it is worth noting that 2012/2013 HBS data represent a viable alternative for the poverty measurement in Tajikistan. However, while the information available in the HBS questionnaire allows for constructing a reliable welfare indicator, margins for improvement are large. The comprehensiveness of the consumption aggregate is limited by the absence of important components such as housing, and many durable goods, and other non-food expenditures. Improvements are also needed for household identification (Sulla and Vecchi, 2013). In addition, the HBS survey can be significantly enhanced by updating the sampling frame to the 2010 Census, and changing the current paneling scheme to a rotational panel. Improvements to field work protocols and supervision would also have large returns (Sulla and Munoz, 2011).

2.4.3 Welfare Aggregate and Poverty Lines

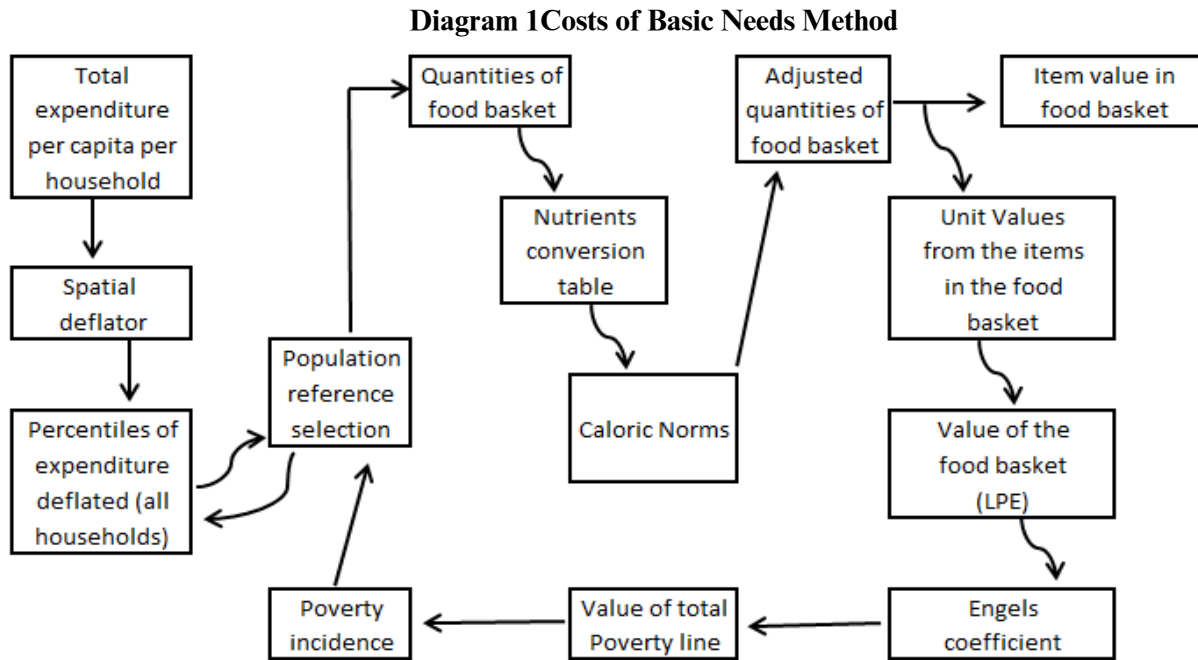
The proposed welfare aggregate for the HBS survey is defined as the aggregate of food used for personal consumption (from purchases, production, gifts or stocks) and of non-food expenditures (subtracting those given as gifts and adding those received as gifts). Due to lack of suitable data, expenditures on housing and on selected durables are not included in the welfare aggregate. The consumption aggregate is further adjusted by the temporal consumer price index (CPI) to correct for differences in price levels across the quarter. The consumption aggregate is also adjusted by a spatial consumer price index (CPI) to correct for differences in price levels across geographical areas and household size. For temporal CPI, we use national total quarterly CPI. For spatial CPI, we compute the Paasche total price index using unit values of reported expenditures of food and selected non-food items of the HBS survey.

The absolute poverty line for the HBS survey is defined by the cost-of-basic-needs method (CBN) (Ravallion, 1994). According to the CBN method, the total poverty line is the sum of two components: food poverty line, and an allowance for non-food consumption. To estimate the food poverty line, the average kilocalorie requirement (AKR) is set at 2,250 kilocalories per-person per-day. Estimation of the minimum cost of one kilocalorie proceeds by choosing the bottom 3 to 36 national per-capita consumption percentiles as the “reference group”.

For estimating the total poverty line, we identify households for whom actual per-capita consumption is

³It is important to note that the HBS improvement plan TajStat is implementing with the support of the World Bank has been tailored to address points (ii) to (vi) of this list.

close to the food poverty line (around 5% its value) and estimate their median food consumption share. The total poverty line is equal to the food poverty line divided by the median food consumption share (Ошибка! Источник ссылки не найден.).



3 CONSTRUCTION OF THE WELFARE AGGREGATE

3.1 Structure of the Consumption Aggregate

A monetary welfare indicator based on household consumption can be defined as follows:

For each *individual* the welfare indicator is defined as the ratio between the nominal household consumption, and the product of three factors required to adjust for:

1. Differences in needs caused by different household size;
2. Inflation;
3. Cost-of-living differences across geographical areas.

In what follows, we describe each of these steps in detail.

3.2 Per-Capita Consumption

While the HBS collects consumption⁴ at the *household* level (as most surveys around the world do), we are ultimately interested in individual welfare. As noted by Deaton and Zaidi (2002: 48):

“If it were possible to gather data on consumption by individual family members, we could move directly from the data to individual welfare, but except for a few goods, such data are not available, even conceptually – think of public goods that are shared by all household members. As it is, the best that can be done is to adjust total household expenditure by some measure of the number of people in the household, and to assign the resulting welfare measure to each household member as an individual.”

Thus, household consumption needs to be adjusted for household size. The simplest adjustment consists in dividing the total household expenditure by the number of household members, thereby obtaining per-capita consumption (PCC). This is clearly a partial solution because it does not adjust by economies of scale or by differences between household members’ needs (due to different age and or gender). Nevertheless, the use of PCC is both a common and best practice, in line with the recommendations of Deaton and Zaidi (2002: 49): “no calculation of welfare or poverty profile should ever be done without the calculation of per-capita expenditure as at least one of the alternatives”. Consistent with this observation, in what follows we use the consumption aggregate expressed in per-capita terms⁵.

The HBS in Tajikistan visits households four times during the year (Sulla and Muñoz, 2011). As a consequence, household size tends to change across quarters). Some of the observed variation is genuine. Household composition can change during the survey year for a number of perfectly legitimate reasons, such as births, deaths, marriages, separations, and other ins-and-outs of the family life. But some of the observed changes are likely to be due to reporting errors. In the absence of additional information it is impossible to tell the relative importance of genuine variation or bad measurement.

Table 1 Differences in household size between the 2nd-3rd quarters (%)

| Q3 minus Q2 | Dushanbe | Sogd | KHatlon | RRP | GBAO | Rural | Urban | Tajikistan |
|-------------|----------|------|---------|------|------|-------|-------|------------|
| -11 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| -7 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.2 | 0.0 | 0.1 |
| -6 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.1 | 0.1 | 0.1 |
| -5 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| -4 | 1.5 | 0.0 | 0.0 | 0.5 | 0.8 | 0.3 | 0.5 | 0.4 |
| -3 | 1.8 | 0.2 | 0.6 | 0.3 | 0.0 | 0.3 | 1.0 | 0.5 |
| -2 | 4.5 | 0.0 | 0.6 | 1.2 | 1.7 | 0.8 | 1.7 | 1.1 |
| -1 | 6.8 | 2.7 | 3.0 | 4.7 | 6.7 | 3.9 | 4.3 | 4.0 |
| 0 | 66.8 | 92.7 | 89.2 | 83.5 | 81.7 | 87.7 | 81.8 | 85.5 |
| 1 | 7.3 | 4.2 | 4.0 | 6.0 | 5.8 | 4.4 | 6.1 | 5.0 |
| 2 | 3.3 | 0.1 | 1.4 | 1.2 | 1.7 | 1.2 | 1.4 | 1.3 |
| 3 | 3.5 | 0.0 | 0.3 | 0.5 | 1.7 | 0.4 | 1.4 | 0.8 |
| 4 | 2.0 | 0.0 | 0.3 | 0.3 | 0.0 | 0.2 | 0.8 | 0.4 |
| 5 | 0.8 | 0.0 | 0.3 | 0.0 | 0.0 | 0.2 | 0.3 | 0.2 |
| 6 | 0.3 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| 7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 |
| 8 | 0.5 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.2 | 0.1 |
| 9 | 0.3 | 0.0 | 0.0 | 0.3 | 0.0 | 0.1 | 0.1 | 0.1 |
| 12 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 |
| | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Note: In column 1, zero means no change in household size between the 2nd and 3rd quarter. “+1” means that household size in q3 had one more member than it had in q2, while “-1” means that household size has decreased by one unit between quarters 2 and 3. Source: Authors’ calculation on HBS 2012, 2nd and 3rd quarters.

⁴The term consumption is used to include all the components of the welfare aggregate. An important share of the consumption is made up of expenditures, but consumption of food produced at home, transfers and use of previously acquired goods, can represent even a bigger share of total household welfare, especially for the poor.

⁵The term “expenditure” is sometime used as synonymous to “consumption”.

For households with different sizes within one year, there is a problem in assigning a single value to be used as the household size. Quarterly assignment of the household size can lead to different poverty classification for the same household during any year. To avoid this problem in our analysis, the mean household size is used to adjust the consumption aggregate.

3.3 The Nominal Consumption Aggregate

The information collected in the HBS questionnaire makes it possible to construct (at least) two welfare indicators:

- I. The expenditures for purchased goods and services;
- II. An estimate of actual consumption of goods and services.

The main advantage of option (ii) is that actual consumption tends to fluctuate less than expenditure (which is more likely to be affected by seasonal and cyclical factors). To the extent that households have the capacity to smooth their consumption over time, option (ii) qualifies as a more appropriate indicator of permanent (or average) living standards. Also, households' members tend to provide more reliable consumption than income data. Accordingly, we opt for a welfare indicator based on actual consumption.

The nominal consumption aggregate can be expressed as the sum of two consumption sub-aggregates, namely, food consumption and non-food consumption. Notation, convenient for later use, is as follows:

where:

- THC = total household consumption,
- FHC= food household consumption, and
- NFHC = non-food household consumption.

The suffix h denotes the h -th household, with $h = 1, 2, \dots, N$.

3.3.1 Food Household Consumption

The HBS survey collects information during the last 30 days for 71 food items on:

- I. Purchased quantities of foods (Form 1, Section 4);
- II. Expenditures for purchased foods (Form 1, Section 4);
- III. Consumed quantities (Form 2, Section 1).

However, while the questionnaire collects expenditures associated with purchased food quantities, it does not provide information on the value of non-purchased food consumption. Given our preference for measuring welfare based on actual consumption rather than on purchases, this poses a problem. How to value the non-purchased food consumption?

Using the actual purchase quantities and values reported in Form 1, Section 4, a unit value (UV) is estimated for each product consumed (purchased or not) by each household. The unit value assigned to each household-product combination is the average unit value for all households purchasing that product

during each quarter, for each region divided by urban and rural households⁶. The final consumption value for the non-purchased food consumption is the product of multiplying the quantities consumed by the unit value of those products. The total food consumption can be expressed as:

where:

- PFHC = purchased food household consumption,
- Q_NP_FHCN = quantities of non-purchased food household consumption, and
- UV = Unit value assigned to each household product combination.

The suffix h denotes the h -th household, with $h = 1, 2, \dots, H$.

3.3.2 Non-Food Household Consumption (NFHC)

Household consumption for non-food items is usually defined as the sum of three sub-aggregates:

where:

- C_{NF} = consumption on non-durable non-food goods and services,
- C_{DF} = the consumption flow out of durable goods owned by the household, and
- U = use value of the house.

The HBS collects information on all these three sub-aggregates but, as we will see, only the first sub-aggregate (C_{NF}) can be reliably estimated.

Non-food non-durable goods and services

Sections 5, 6, 7 and 8 in Form 1 contain monthly expenditures on non-food goods and services; sections 5, 6 and 7 also include quantities and value of goods and services received as gifts; and finally, sections 6 and 7 also include quantities and values of goods and services purchased for gifts.

Section 5: “*Clothing, hosiery, fabrics and shoes*”. All expenditures in this section are included in the consumption aggregate. The total value of household consumption is calculated by summing purchases and values of received gifts.

Sections 6 and 7: “*Furniture, cultural and home items*”, “*Purchase of soap, synthetic detergents, etc.*”. These sections contain expenditures on furniture, cultural and home items, soap, detergents, fuel, tobacco products, fodder for live-stocks and birdseeds for poultry, and so on. The total value of household consumption is calculated by summing purchases and values of received gifts, and subtracting the value of goods given away as gifts by the household (Deaton and Zaidi, 2002). The more expensive durables from section 6 are excluded in the approach adopted in this note (see consumer durables section)⁷. All the

⁶If there were less than 26 observations, then the average for the product-region-quarter combination is used. If there were less than 26 observations then the average product-urban/rural- quarter combination is used. If there were less than 26 observations then the average product quarter combination is used.

⁷ The excluded codes in section 6 are 605-TV with a color image, 606-Video, 624-Refrigerator, freezer, 625-Washing Machine, 626-Vacuum, 627-Elektrotyug, 628-Power, 629-Other appliances in the amount of TJS, 630-Car, 632-motorbike, bicycle, 635-Sewing Machine, 638-Dining table and kitchen, 639-Writing desk, 640-sofa, couch, couch, 641-A bed, a sofa bed, 642-The chair, chair bed, 643-Chairs, 644-Wardrobe, linen, books, 645-Sideboard, Cupboard, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set.

expenditures for production activities reported in section 7 are excluded because they do not represent consumption.⁸

Section 8: “*Monetary expenses of payment for personal and production services*”. This section contains expenditures on actual rent, utilities, repairs, household services, cultural and educational services, transport services, health services and production services. All such expenditures are included in the consumption aggregate with the exception of payments for dwelling space, repairs and construction of houses, and all production services⁹.

Consumer durable goods

Form 6 of the HBS questionnaire collects information on durable goods. Section 6 asks respondents about purchased durables and does not include durables purchased in previous months. Without information on goods purchased in the past, including the age and value of these goods, it is not possible to estimate “use values” to be included in the consumption aggregate. To compensate for this limitation, the purchase value of small durables was included as part of the consumption aggregate. Small durables are more common and are purchased more frequently. It is reasonable to assume that the **purchase value of new** small durables is a good estimate of the **use value of all** small durables in the household. For a complete list of durables included and excluded, see **Ошибка! Источник ссылки не найден.**

Housing/Rent imputation

The housing component of the consumption aggregate should ideally measure the monthly value that households receive from occupying their dwelling, and express this value in monetary terms. The HBS questionnaire only collects this information for renters however (Question 801-p802=1 of Section 8, Form 1). HBS data show that in Tajikistan a large majority of households own their houses. This implies that it would be necessary to estimate the implicit rental value, which would represent the value that household owners would have paid if they had to rent their dwelling, for most households in the survey.

Unfortunately, the HBS questionnaire does not ask households to estimate the rental values of their homes. Small sample size problems also prevent estimating the rental value by the alternative means of a hedonic regression. Due to lack of suitable data, housing expenditures are excluded from the welfare aggregate. The same strategy was adopted in the LSMS poverty assessment report of 1999 to 2009.

3.4 Temporal Consumer-Price Index

Because the available data span 12 months of the year, an adjustment for within-year inflation is required. Prices varied during this period, and with these changes the purchasing power of households also varied. Prior to using monetary variables for the construction of the welfare

Table 2 Quarterly CPI Values for Tajikistan

| Year | Quarter | CPI | Normalized to 1 |
|------|---------|-------|-----------------|
| 2014 | 1 | 218.5 | 0.971 |
| 2014 | 2 | 224.6 | 0.998 |
| 2014 | 3 | 226.8 | 1.008 |
| 2014 | 4 | 230.0 | 1.022 |

Source: IMF data base¹⁰

⁸ The excluded codes in section 7 are 718 to 74. Production is captured by the consumption of the outputs. For example, all agricultural production is captured in the food sections if reported as consumed by the household.

⁹ The excluded codes in section 8 are 801-p802=1, 801-p802=6 and all 810 codes.

¹⁰ CPI values from the Tajikistan official Website show no inflation (or even deflation) from 2000 to 2014. It is believed the CPI values were normalized within each year.

aggregate, all monetary values must therefore be deflated using the official CPI (**Ошибка! Источник ссылки не найден.**).

Given the sampling scheme described in Sulla and Muñoz (2011), the ideal solution is to deflate expenditures using monthly CPI. However, the HBS datasets do not contain information regarding the month during which the interview was conducted. For this reason we deflate household expenditures using quarterly CPI calculated as a simple average of monthly total CP. Finally, the CPI quarterly data is normalized for each four quarter period by dividing the quarterly CPI value by the average of all four quarters.

3.5 Spatial Consumer-Price Index

Welfare comparisons require adjusting monetary welfare indicators for differences in purchasing power that arise due to differences in price levels across geographical areas. In this section, we describe the steps involved in estimating a Paasche index at the household-level. While other price indices can be chosen, there is a twofold advantage in using the Paasche index. First, estimation is computationally simple and fast. Secondly, the use of a Paasche index is “well-founded” in economic theory. Money metric utility (Samuelson, 1974) can be approximated by dividing total household expenditure by a Paasche price index (Deaton, 1980; Deaton and Zaidi, 2002). The Paasche index for the h -th household is defined as:

Equation 1 _____

where p_j is the price of commodity j for the reference group 0 (for a complete list of commodities included in the index, see **Ошибка! Источник ссылки не найден.**). The index is the ratio between the cost of a bundle of goods and services purchased by the h -th household, and the cost of the same bundle as paid by a reference household (the “average household”, indexed by 0). From the previous formula we obtain:

Equation 2 —

where α_j is the budget share of household h for commodity j , and p_j^h/p_j^0 is the relative price of the j -th item.

3.5.1 Price relativities

The HBS provides information on expenditures and purchased quantities for both food and (a selection of) non-food items. Unit values can therefore be calculated as:

Equation 3 _____

where e_{hj} is the expenditure of household h on commodity j .

Before estimating unit values, outliers in the distribution of unit values are detected at the product level

using the following a rule:

Equation 4
$$\frac{x - \mu}{\sigma} < -2.5 \text{ or } \frac{x - \mu}{\sigma} > 2.5$$

where σ is the standard deviation of x . Any observation that falls outside the interval defined in **Ошибка! Источник ссылки не найден.** is set to missing and subsequently replaced with an imputed value (the procedure is described in greater detail below). The interval (x value) was 2.5 for food items and 2.99 for non-food items¹¹.

Based on “cleaned” unit values, the ratio of price relativities $\frac{p_j}{p_{j0}}$ is estimated as:

Equation 5
$$\frac{p_j}{p_{j0}} = \frac{p_j}{\bar{p}_j}$$

where \bar{p}_j is the national average unit value of commodity j . Note that the j -th unit value p_j can be missing even if the actual consumption of commodity j is strictly positive (self-production, running down the stocks, gifts received, etc.). In these cases it is essential to impute the missing values. The same hierarchical procedure described in section **Ошибка! Источник ссылки не найден.Ошибка! Источник ссылки не найден.** is followed:

12

where \bar{p}_j denotes the average of p_j over the reference group H .

3.5.2 Budget shares

The budget shares w_j needed to estimate the spatial-price index are calculated as:

Equation 6
$$w_j = \frac{p_j x_j}{\sum p_j x_j}$$

where $\sum p_j x_j$ is the total household expenditure on all items j included in the Paasche Price index.

3.5.3 The final Paasche price index

With the results from **Ошибка! Источник ссылки не найден.** and **Ошибка! Источник ссылки не найден.**,

¹¹ Within the 2.5 range, 2.0% of the food items were classified as outliers. Within the 2.99 range, 1.6 percent of the non-food cases were classified as outliers.

the raw Paasche price index for each household (**Ошибка! Источник ссылки не найден.**) can be estimated. Before using the index, first we estimate the average for each quarter, region, area combination, and then normalize each of the 36 price indexes by the national average.

Equation 7

The normalized Paasche Spatial Price Indexes (SPIs) by quarter, region and urban/rural areas are presented in **Ошибка! Источник ссылки не найден.** The normalized SPIs range from 0.93 for the last quarter in rural Sogd and Khatlon to 1.17 for the last quarter in urban GBAO. Since Dushanbe has only urban households, the total number of combinations is 36.

Table 3 Normalized Paasche Spatial Price Index, Tajikistan 2014

| Region | Area | Quarter | | | |
|----------|-------|---------|------|------|------|
| | | Q1 | Q2 | Q3 | Q4 |
| Dushanbe | Urban | 1.15 | 1.08 | 1.09 | 1.08 |
| Sogd | Urban | 1.02 | 1.00 | 0.97 | 0.98 |
| | Rural | 0.96 | 0.95 | 0.92 | 0.93 |
| Khatlon | Urban | 1.04 | 0.98 | 1.00 | 0.98 |
| | Rural | 0.97 | 0.93 | 0.94 | 0.93 |
| RRP | Urban | 1.10 | 1.03 | 1.02 | 1.03 |
| | Rural | 1.03 | 0.99 | 0.97 | 0.97 |
| GBAO | Urban | 1.32 | 1.29 | 1.31 | 1.17 |
| | Rural | 1.19 | 1.15 | 1.15 | 1.11 |

Source: Staff estimates based on HBS, TajStat

3.6 The Real Consumption Aggregate

The final welfare measure is total household consumption divided by the household size and divided by the SPI (Paasche). The resulting aggregate is referred to as ‘real consumption’ because poverty comparisons between households from any place in the country are unbiased by neither the size of the households nor by the costs of living.

The average real per-capita consumption aggregate in Tajikistan is estimated to be TJS 231,67, ranging from TJS102.53 for the poorest quintile to 440.20 for the richest quintile. Average consumption in urban areas (TJS 263.78) is 18% higher than in rural households (TJS 216.06). Consumption is the highest in Dushanbe and Sogd and the lowest in GBAO (TJS 202.53). On average, food represents 65.3 percent of the household budget (**Ошибка! Источник ссылки не найден.**).

Table 4 Total Monthly Per-capita Consumption Spatially Deflated, Tajikistan 2014

| Groups | | Somoni/month | %food | %non-food |
|--------|----------|--------------|-------|-----------|
| Region | Dushanbe | 277.24 | 56.9% | 43.1% |
| | Sogd | 264.49 | 60.2% | 39.8% |
| | Khatlon | 208.53 | 70.9% | 29.1% |
| | RRS | 215.92 | 68.5% | 31.5% |
| | GBAO | 202.53 | 69.3% | 30.7% |
| Area | Urban | 263.78 | 59.9% | 40.1% |

¹² This includes cases where n = 0 (without observations or missing).

| | | | | |
|------------------|---------------------|--------|-------|-------|
| | Rural | 216.06 | 68.5% | 31.5% |
| Quintiles | Q1 (poorest) | 102.53 | 76.1% | 23.9% |
| | Q2 | 154.22 | 72.8% | 27.2% |
| | Q3 | 199.89 | 70.3% | 29.7% |
| | Q4 | 261.60 | 66.5% | 33.5% |
| | Q5 (richest) | 440.20 | 57.2% | 42.8% |
| Total | | 231.67 | 65.3% | 34.7% |

Source: Staff estimates based on HBS, TajStat

3.7 Inequality

In Tajikistan, inequality is higher in urban areas. Inequality is also higher in Sogd and RRP, and lower in GBAO. Indeed, while overall inequality is relatively low, with a Gini coefficient of 0.29, GBAO, the region with the lowest per-capita consumption has at the same time the lowest Gini of 0.259. On the other hand, RRS, the region with consumption per-capita higher than that of Khatlon and GBAO also has the highest Gini (29.4) (**Ошибка! Источник ссылки не найден.**).

Table 2 GINI by Regions and Area, Tajikistan Q1, Q2, Q3, Q4 (2014)

| | National | Region | | | | | Area | |
|------------------|-----------------|-----------------|-------------|----------------|------------|-------------|--------------|--------------|
| | | Dushanbe | Sogd | Khatlon | RRP | GBAO | Urban | Rural |
| GINI *100 | 29.0 | 28.4 | 28.7 | 27.4 | 29.4 | 25.9 | 28.8 | 28.4 |

Source: Staff estimates based on HBS, TajStat

4 POVERTY LINES USED TO ESTIMATE POVERTY

This section illustrates the procedure followed to set an absolute poverty line for Tajikistan based on the HBS data. Ravallion (1994) provides a clear exposition of the theoretical rationale of the CBN method. The approach is used for two main reasons:

- 1) The CBN method is also used in the Poverty Assessment Report based on the 2007 LSMS dataset. This facilitates the task of validating the results obtained using the 2009 HBS dataset.
- 2) The CBN method has a simple interpretation and the results based on this kind of poverty line can be easily communicated to a wide audience.

According to the CBN method, the total poverty line () can be defined as the sum of two components, namely a food poverty line () and an allowance for non-food consumption ():

where Z_F is the “food poverty line” (section **Ошибка! Источник ссылки не найден.**), and Z_{NF} is a non-food allowance (Section **Ошибка! Источник ссылки не найден.**).

4.1 The Food Poverty Line ()

The determination of a food poverty line is completed in three steps:

- 1) The average kilocalorie requirement (AKR), defined as the average number of kilocalories (per person per day) needed to meet daily energy requirements
- 2) The average kilocalorie cost is approximated using the average cost of one kilocalorie for the reference group;
- 3) Once steps (1) and (2) are completed, a food poverty line is obtained as the product of the AKR (step 1) multiplied by the minimum kilocalorie unit cost (step 2):

4.1.1 The Average Kilocalorie Requirement (AKR)

While there are many methods available to estimate the AKR (Kakwani, 2003), in this note the AKR is interpreted as a normative value. The procedure used calculates the minimum amount of kilocalories that – on average – Tajikistani people ought to consume daily in order to live a healthy and active social life.

This per-capita AKR is set to **2,250 Kcal/day**, the same threshold used in the 2009 poverty assessment report.

4.1.2 The Unit Kilocalorie Cost

The cost of one kilocalorie for each household is calculated by dividing total food expenditure over the total kilocalories consumed. The average cost of one Kilocalorie is estimated for each household as:

Equation 8

where E_{hj} is the food expenditure of household h on food item j (deflated using the Paasche price index), and K_{hj} are the kilocalories consumed by household h from food item j . The term C_j is estimated as part of the consumption aggregate calculations, and U_{hj} is defined as:

Equation 9

where U_{hj} is the unit value estimated during the Paasche price index for food item i and household h , and K_j is the calorie content for each food item j . The calorie content for each food item is reported in **Ошибка! Источник ссылки не найден.**

The final unit calorie cost is based on a sub-set of households or a reference population. To estimate the food part of the poverty line, the reference population includes only poor households, and excludes those at the bottom of the distribution. For this exercise, households in percentiles 3-36 were selected¹³. The median U_{hj} value for households in the reference group is estimated to be **TJS 0.00180560073/Kcal**

4.1.3 Food Poverty line value

¹³ Because poverty levels are not known initially, an iterative approach was applied. The first estimation uses the last known poverty rate as population reference (or percentiles 5-30 if there is no previous estimate). If final results show the poverty rate to have changed, poverty is re-calculated with the new population reference. If the recalculation yields a new poverty rate, poverty is re-calculated again with the new population reference. This is done as many times as necessary until the reference population group is within 2 percentage points to the final poverty rate. Experiences had shown the process to converge normally within three or four rounds.

The value of the food poverty line is estimated as:

$$\begin{aligned} &= 2,250 \text{ Kcal/day} * \text{TJS } 0.00180560073/\text{Kcal} = \text{TJS } 4.062601643836/\text{day}, \text{ or} \\ &= \text{TJS } 4.062601643836/\text{day} * 365 \text{ days}/12 \text{ month} = \text{TJS } 123.5708/\text{month} \approx \text{TJS } 123.57/\text{month} \end{aligned}$$

4.2 The Non-Food Component and Total Poverty Line

The CBN approach estimates the total poverty line by adding an allowance for non-food basic needs to the food poverty line. The most commonly used approach to estimate this second component of the poverty line that suggested by Ravallion (1994), and Ravallion and Bidani (1994).

The calculation can be implemented following a three-step procedure. In step 1, the households for which total expenditures are close to the food poverty line are identified. In step 2, the share of food over total consumption (Engels coefficient) for the selected households is calculated. In step 3 the food poverty line is divided by the Engels coefficient to obtain the lower-bound poverty line¹⁴:

Equation 10

where Z_L is the food poverty line value (TJS 123.57/month) and Z_U is the median Engels coefficient for households in the reference group, defined as households with total consumption within 5 percent of the food poverty line (above or below). Following this approach we get the total poverty line of:

$$\approx \text{TJS } 158.71 / \text{month}$$

The non-food part of the poverty line is therefore calculated to be TJS 158.71 /month - TJS 123.57 /month = TJS 35.14 /month

$$\text{TJS } 158.71 / \text{month} = \text{TJS } 123.57 / \text{month} + \text{TJS } 35.14 / \text{month}$$

4.3 Updating the Poverty line

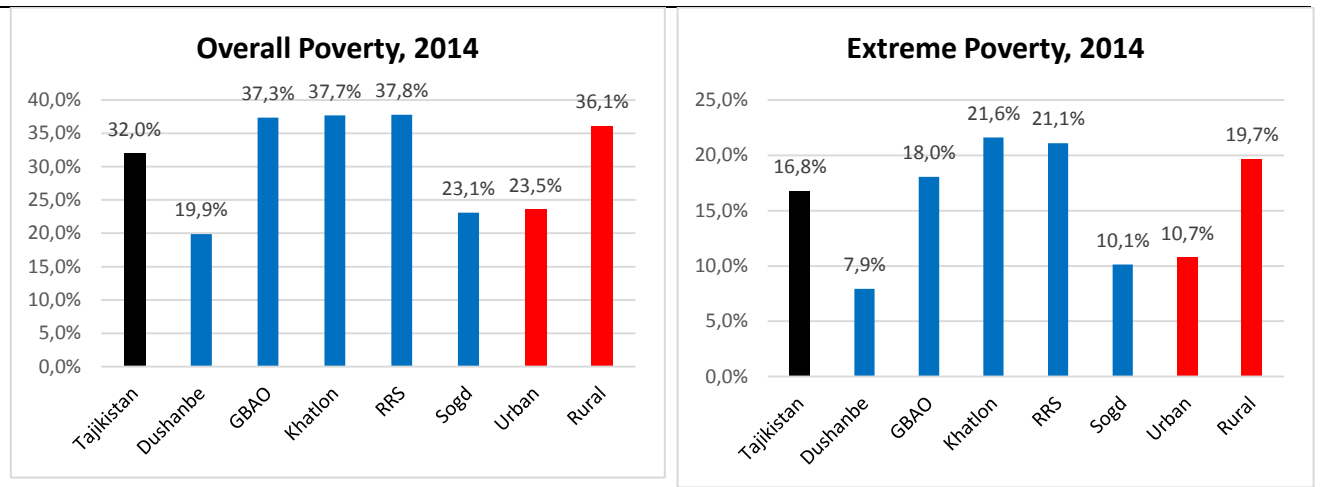
The poverty line, once established on the basis of the process discussed in this note, will be updated quarterly using a consumer price index that is weighted by the median shares of food and non-food consumption observed in the population of reference in the base year. This "poor-person CPI" will be updated using the official food and non-food CPI estimates provided by TajStat. In this way, the line for 2014, estimated at TJS 158.71/month, serves as an "anchor" by which all following poverty line estimations and all poverty indicators are calculated.

5 BASIC POVERTY RESULTS

Comparing the per-capita monthly consumption aggregate to the poverty lines yields a national extreme (food) poverty rate of 19.7 percent and a total poverty rate of 32 percent. Poverty in Tajikistan is higher in RRS, Khatlon and GBAO and to a lesser degree in Sogd. Poverty is also higher in rural areas (36.1 percent) than in urban households (23.5 percent) (**Figure 1**).

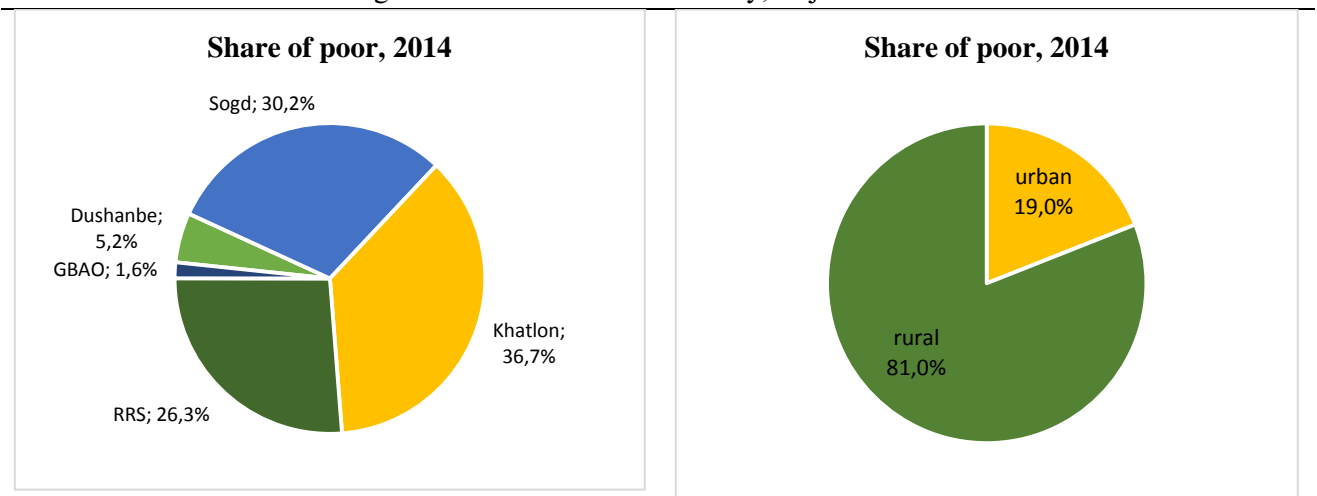
¹⁴The "L: on Z_L is used because this method yields what is known as the lower bound poverty line. One can also change the reference group to those households for which **food consumption** (instead of total consumption) is close to the food poverty line and yield Z_U or the upper bound poverty line.

Figure 1 Poverty Headcount Rate, Tajikistan 2014



The poor are concentrated in rural Tajikistan and in three regions of Khatlon, GBAO and RRS. Indeed, almost four out of five poor persons lives in in rural households. Also, almost 2/3 of the poor are in the regions of Sogd and Khatlon (Figure 2).

Figure 2 Contribution to Poverty, Tajikistan 2014



Source: Staff estimates based on HBS 2014, TajStat

6 IMPROVEMENT PLAN OF THE HOUSEHOLD BUDGET SURVEY (HBS)

6.1 Poverty Committee

6.1.1 Motivation

Poverty numbers are often highly anticipated and politically sensitive. It is important to remember that these numbers are important to the extent they can encourage the alignment of the poverty reduction

strategy of a country, and to help monitor and evaluate progress. If no consensus exists around the methodological grounds of such numbers, stakeholders can be easily drawn into an energy-consuming debate on how to measure poverty, at the expense of focusing on how to reduce poverty. In order to minimize this risk, in a number of countries the governments have successfully facilitated the process of designing and engaging national and international stakeholders in a poverty committee. This committee is a space for technical discussion only. Its membership should represent the existing diversity of technical voices of the country, and should have a well-defined scope and a finite mandate¹⁵. In particular, it should propose a monetary poverty methodology to the Government of Tajikistan.

6.1.2 Objectives

1. Ensure that monetary poverty figures are backed by the best international practices;
2. Help build inter-agency consensus;
3. Foster transparency.
- 4.

6.1.3 Time line and scope

The proposal is to have a short-medium (3 to 6 months) and medium-long term (18-24 months) approach. In the short-medium run, a poverty methodology would be defined using the existing HBS. In the medium-long run, a revised poverty methodology would be developed using the new HBS.

6.1.4 Expectations of the poverty committee members

1. Attend technical discussions;
2. Lend credibility as an active member of a poverty committee;
3. Share financial and technical assistance gained previously through participation in similar experiences, both within and outside the country.

6.1.5 Recruitment of poverty committee members

Both international and national experts should be recruited in their technical capacity with the institutional support of their respective organizations.

It is important distinguish between the work of the technical group and the objective of other existing committees in the country, such as the statistical committee or the living standards improvement committee (or Poverty Reduction Strategy Committee). These other examples are spaces for broad discussions of policies and strategies for the national statistical system and the poverty reduction strategy, and are not designed to include the level of technical expertise needed to manage the national approach to monetary poverty measurement.

6.2 Road Map

6.2.1 Data-entry

The World Bank is supporting the re-design of the data-entry system for HBS using the CSPro platform. The new data-entry application is fully developed and currently undergoing pilot tests. The plan is to hire two temporary data-entry specialists per region to enter data in CSPro for two quarters. TajStat permanent data-entry staff would continue entering data for the same two quarters but in FoxPro, the legacy data entry system. If the results of these pilot tests prove that the newly-designed CSPro data-entry

¹⁵Some countries had created a second committee in charge of the more executive and political functions.

system is a viable replacement for FoxPro, the FoxPro will be shut down and the new data-entry application will come into effect.

6.2.2 Sampling

The current HBS sample frame is based on the 2000 Census. An altogether sounder approach would have TajStat update the HBS sample frame using 2010 Census. TajStat has agreed to provide the list of potential local experts who could be hired for this sampling work in early 2014. The World Bank at this time also committed to bring additional international expertise to improve the HBS sample frame.

6.2.3 Questionnaires

New questionnaires have been developed, but they need further refining and accurate translation. The plan is to pilot the new questionnaires in parallel with old questionnaire for at least two quarters to test the viability of field data-collection by TajStat interviewers.

6.2.4 Poverty fluctuations over time

As of 2012, it was difficult to identify households with the same identification number during four quarters, from those that were replaced during the year (due to lost households from the sample). Because new households in the sample keep the same household identification number as the dropped household, it is not possible to estimate consumption using the information from the four quarter together for each household. Given this limitation, consumption is estimated for each quarter and each quarter treated as an independent sample.

Because consumption is not uniform within the year (seasonality), poverty estimates will change if one uses the quarter as independent samples compared to adding up all quarter for each household. Using the yearly consumption by adding up the four quarter for each household, and adjusting the consumption aggregates for those providing information for part of the year (de-trending), will provide the best poverty estimates. In order to achieve this, a unique household identification number should be assigned to each household. Records of household replacement and yearly questionnaires should be collected from those about to drop the sample.

6.2.5 Updates to the poverty methodology

Once the updates to the data collection process are complete, the poverty methodology will in turn need to be amended to take into account the additional information available. Some of the most important changes will likely include moving to annual poverty measures using updated household identifiers, adding estimates for the value of occupying household dwellings, and including the use value of larger durables in the consumption aggregate. The current methodology excludes these items due to data coverage issues, but in the future these will likely no longer be limitations.

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ANNEX A List of Durables include or excluded in the consumption aggregate

Included

| |
|---|
| 601-Radio |
| 606-Video |
| 607-Tape player |
| 608-Cassette |
| 609-Turntables |
| 610-Stabilizer |
| 611-Tapes for the VCR and tape |
| 612-The telephone |
| 613-Other radios in the amount of TJS |
| 614-Camera |
| 616-Clocks, pocket |
| 617-Other Watches |
| 618-Skiing, skating and other sports items |
| 619-The amount TJS Newspapers, books, magazines, student notebooks, paper and other |
| 620-Stationery |
| 621-Toys |
| 622-Other recreational goods |
| 623-Musical Instruments |
| 626-Vacuum |
| 627-Elektroudyug |
| 628-Power |
| 629-Other appliances in the amount of TJS |
| 632-Motorbike, bicycle ¹⁶ |
| 633-Spare parts for vehicles in the amount of TJS |
| 634-Ceramic tableware, tea, cooking (amount TJS) |
| 637-Other household goods to the amount of TJS |
| 638-Dining table and kitchen |
| 639-Writing desk |
| 642-The chair, chair bed |
| 643-Chairs |
| 644-Wardrobe, linen, books |
| 645-Sideboard, Cupboard |
| 648-Other furniture in the amount of TJS |

Excluded

| |
|--|
| 605-TV with a color image |
| 624-Refrigerator, freezer |
| 625-Washing Machine |
| 630-Car |
| 635-Sewing Machine |
| 640-Sofa, couch, couch |
| 641-Bed, a sofa bed |
| 646-Necklace dining room, bedroom closet, etc. |
| 647-Kitchen set |

None reported (excluded by default)

| |
|--|
| 602-Telemagnitoly |
| 603-Television and Radio |
| 604-TV with black and white image |
| 615-Filming apparatus |
| 631-The motorcycle, motor scooter, moped |
| 636-Knitting Machine |
| |

¹⁶Given the low values reported in this category, it seems to include only bicycles.

ANNEX B Included goods in Paasche Index

| Food | ... cont . food | ... cont . Non-food |
|-------------------------------|--------------------------------|---------------------------------|
| Wheat Bread | Curd, weight, etc. | Robes, PJ |
| Wheat Flour | Cheese and cheese | Tracksuits |
| Rye flour | Canned milk | Fur clothing |
| Flour, other | Ice cream | Fur hats |
| Legumes | Vegetable oil | Other types of clothing |
| Rice | Margarine and other fats | shawls, scarves |
| Cereals, except rice | Sugar | Gloves, mittens |
| Pasta | Candy, halva, etc. | Combinations, shirts, t-shirts |
| Potatoes | Chocolate | Pants, pants, trousers |
| Cabbage | Honey bee | Swim swimwear |
| Cucumbers | Jam, marmalade | Other underwear |
| Tomatoes | Cookies, cakes, etc. | Hosiery |
| Beets, carrots, roots | Eggs | Boots, shoes,insulated |
| Onion | Fish, fresh | Boots, shoes non-insulated |
| Other vegetables | Fish, salted, dried | Boots, boots rubber |
| Canned vegetables | Canned fish | Shoes, Shoes |
| Zucchini, squash, etc. | Fresh mushrooms | Sandals, Sandals, Sandals |
| Watermelons and melons | Dried Mushrooms | Shoe room, booties motocross |
| Fruit Garden | Tea | Cross shoes |
| Berries Garden | Coffee natural | Sneakers, gumshoes |
| Wild Fruits and Berries | Soft drinks | The other sports shoes |
| Dried Fruits and Berries | Salt | Fabrics for clothing: cotton |
| Fresh grapes | Vodka | Fabrics for clothing: woolen |
| Dried grapes | Liquor | Fabrics for clothing: silk |
| Citrus | Wine factory | Fabrics for clothing: staple |
| Fruit preserves | Wine homemade | Fabrics for clothing: synthetic |
| Beef and veal | | Radio |
| Mutton and goat meat | Non-Food | Tape player |
| Meat By-products | Beer | Cassette |
| Poultry | Coats: winter | Turntables |
| The meat of other animals | Coats: demi | Stabilizer |
| Fat | Raincoats | Tapes for the VCR and tape |
| The meat of wild animals | Jackets: Winter | The telephone |
| Meats and myasokopchenosti | Jackets: demi | Camera |
| Meat products and ready-made | Jackets: summer | Clocks |
| Meat, meat and vegetable cans | Dresses, dresses, suits | Piece of tissue products |
| Whole milk | Costumes | Soap, kg |
| Skim milk | Pants | Laundry soap, kg |
| Sour cream and cream | Skirts | Gasoline liter |
| Butter | jackets, sweaters, jumpers, | |
| | Shirts for men &women | |

ANNEX C Food Products and Caloric Contents for Tajikistan

| Product | kilocalories (per Kg or unit) |
|------------------------------------|----------------------------------|
| Wheat bread | 2,890 |
| Rye bread and other | 2,200 |
| Wheat Flour | 3,400 |
| Rye flour | 3,110 |
| Flour, other | 3,400 |
| Legumes | 2,900 |
| Rice | 3,500 |
| Cereals, except rice | 3,400 |
| Pasta | 3,500 |
| Potatoes | 850 |
| Cabbage | 240 |
| Cucumbers | 140 |
| Tomatoes | 190 |
| Beets, carrots, radishes, roots | 350 |
| Onion | 260 |
| Other vegetables | 250 |
| Canned vegetables | 400 |
| Zucchini, squash, pumpkins, etc. | 180 |
| Watermelons and melons | 260 |
| Fruit Garden | 450 |
| Berries Garden | 386 |
| Wild Fruits and Berries | 400 |
| Dried Fruits and Berries | 6,000 |
| Fresh grapes | 610 |
| Dried grapes | 2,830 |
| Citrus | 360 |
| Fruit preserves | 600 |
| Beef and veal | 1,200 |
| Mutton and goat meat | 1,530 |
| Meat by-products | 8,910 |
| Poultry | 1,710 |
| The meat of other animals | 1,500 |
| Fat | 8,910 |
| The meat of wild animals and birds | 1,200 |

| Product | kilocalories (per Kg or unit) |
|------------------------------|----------------------------------|
| Meats and others | 450 |
| Meat products | 2,575 |
| Meat and canned others | 2,575 |
| Whole milk | 650 |
| Skim milk | 360 |
| Sour cream and cream | 3,370 |
| Butter | 8,500 |
| Curd, weight, etc. | 3,600 |
| Cheese and cheese | 3,600 |
| Canned milk | 640 |
| Ice cream | 1,900 |
| Vegetable oil | 8,840 |
| Margarine and other fats | 7,660 |
| Sugar | 3,920 |
| Candy, halva, etc. | 4,380 |
| Chocolate | 5,100 |
| Honey bee | 3,040 |
| Jam, marmalade | 2,220 |
| Cookies, cakes, etc. | 3,530 |
| Eggs | 53 |
| Fish, fresh | 990 |
| Fish, salted, dried | 1,280 |
| Canned fish | 1,250 |
| Fresh mushrooms | 280 |
| Dried mushrooms | 1,200 |
| Tea | 60 |
| Coffee natural | 300 |
| Soft drinks | 380 |
| Salt | - |
| Vodka | 2,400 |
| Liqueur | 2,400 |
| Fruit and berry wine factory | 5,500 |
| Fruit & berry wine homemade | 3,300 |

Source: FAO (2004) and the Italian National Institute of Nutrition (www.inran.it).

Замимаи Г. Синтакс-кодҳои SPSS, ки барои гирифтани натиҷаҳо истифода шудаанд

Приложение Г Синтакс-коды SPSS, использованные для получения результатов

Annex D SPSS Syntax codes used to produce the results

FILE 0/ФАЙЛ 0 – PREPARATION/ПОДГОТОВКА

*variable level Variable1 Variable2 (scale) .

*variable level Variable1 Variable2 (nominal) .

*variable level Variable1 Variable2 (ordinal) .

*This file uses data files with all quarter availables in the same file with variables "year" and "quarter" added

***The original data files are in folder: "C:\1 Tajikistan\Data\4 quarters*.*"

***Исходные файлы данных находятся в папке: "C:\1 Tajikistan\Data\4 quarters*.*"

***Also, there are two syntax files: "C:\1 Tajikistan\Data\value labels code.sps" and "C:\1 Tajikistan\Data\value labels 1 2 3 4.sps"

***with commands that are the same for several data files.

***Также имеется два связанных файла: "C:\1 Tajikistan\Data\value labels code.sps" и "C:\1 Tajikistan\Data\value labels 1 2 3 4.sps"

***с командами, которые являются одинаковыми для нескольких файлов данных.

*** You will need to create another directory: "C:\1 Tajikistan\Analysis\" in order to run the rest of the programs.

***** CPI (IPC) *****

***Creates a file with the corresponding CPI value and creates a copy in the "Data" directory

***Создайте файл с соответствующим значением ИПЦ и создайте копию в папке "Data"

***** HH HEADING *****

***** ГЛАВА ДОМОХОЗЯЙСТВА *****

***Creates a file with the heading to be added to all data files later

***Создайте файл с заголовком, который позже будет добавлен ко всем файлам данных

***** Codes and calories *****

***** Коды калории *****

***Takes the codes Kcal file and saves it into the "Data" directory

***Возьмите файл "коды ккал", и сохраните его в папке "Data"

***** Select quarters, sort files, double entries, others *****

Выберите кварталы, файлы сортировки, дублирующие записи, другое

***Select the necessary quarter

***Order files by year, quarter, number and p001

***Check for double entries

***Change "string" variables into "numeric"

*** create a "only1" variable with a value of 1 in every line

***Save the file with the same name.

```

***Выберите необходимый квартал
***Расположите файлы по годам, кварталам, номерам и P001
***Проверьте наличие дублирующих записей
***Замените "строковые" переменные на "числовые"
*** задайте "только1" переменную со значением 1 в каждой строке
***Сохраните файл с таким же именем.

```

```

***** Ading the heading to data file *****
***** Добавление заголовка к файлу данных *****
***Add the heading variables to all data files.
**Add data labels and values for selected variables..
***Добавьте заглавные переменные ко всем файлам данных.
**Добавьте метки данных и значения для выбранных переменных.
***** CPI (IPC) *****
***Create by hand a file with the original CPI values from IMF.
***Создайте вручную файл с исходными значениями ИПЦ, полученными от МВФ.

```

```

*year
*2012
*2012
*2013
*2013

```

```

***Estimate average for the 4 quarters
***Рассчитайте средний показатель для 4 кварталов

```

```

*AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES
/BREAK=
/cpi_original_mean=MEAN(cpi_original).

```

```

***Estimate the normalized cpi value for each quarter .
***Рассчитайте нормированное значение ИПЦ на каждый квартал.

```

```

*COMPUTE cpi=cpi_original / cpi_original_mean.
*EXECUTE.

```

```

*SAVE OUTFILE='C:\1 Tajikistan\Data\4 quarters\cpi_IMF.sav'
/keep = year quarter cpi_original cpi .

```

```

*****

```

```

GET FILE='C:\1 Tajikistan\Data\4 quarters\cpi_IMF.sav'.

```

```

*****

```

```

GET FILE='C:\1 Tajikistan\Data\4 quarters\cpi_IMF.sav'.

```

```

SORT CASES BY year (a) quarter(A) .

```

```

SAVE OUTFILE='C:\1 Tajikistan\Data\cpi.sav'

```

/keep = year quarter cpi_original cpi .

*****.

GET FILE='C:\1 Tajikistan\Data\cpi.sav'.

***** CPI (IPC) *****.

***** NH HEADING *****
***** ГЛАВА ДОМОХОЗЯЙСТВА *****
*****.

***Open file one to create a master heading file .

***Откройте файл первый для того, чтобы создать основной заголовчный файл.

GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S00_1_3_11_household_incomes.sav'

/ keep nomer p001 p101 p002 year quarter.

Compute year_q = year + (quarter/10) .

variable label year_q "year + (quarter/10)" .

***Select from 1st. quarter of 2014 to 4th. quarter of 2014 .

***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.

USE ALL.

SELECT IF (year_q >= 2014.1 & year_q <= 2014.4).

EXECUTE.

***Create the region variable using P001 .

***Задайте переменную для региона, используя P001 .

COMPUTE region=NUMBER(P001,Comma4.0).

Variable label region "Region/Oblast" .

EXECUTE.

Value label region

3501 "Dushanbe"

3505 "Sogd"

3507 "Khatlon"

3509 "RRP"

3590 "GBAO"

***Create household id (one for each household) .

***Присвойте идентификационный номер домохозяйству (по одному на каждое домохозяйство) .

COMPUTE hhid=(nomer * 10000) + region.

EXECUTE.

rename variable (p101=hhsize) .

RECODE p002 (1=1) (2=0) INTO urban.

VARIABLE LABELS urban 'urban/rural area (=1 if urban, =0 other)'.
EXECUTE.

value label urban 0"rural" 1"urban" .

RECODE region (3501=1) (3505=2) (3507=3) (3509=4) (3590=5) INTO temporal_region.

EXECUTE.

COMPUTE y_q_u_r=(year_q*1000) + (urban * 10) + temporal_region.

VARIABLE LABELS y_q_u_r "(Year)_(quarter)_(urban=1, rural=0)_(Region: 1=Dushanbe, 2=Sogd, 3=Khatlon, 4=RRP, 5=GBAO)".

EXECUTE.

format y_q_u_r (F12.0) .

format quarter urban hhsz (F2.0) .

format nomer (F3.0) .

format year region (F4.0) .

format hhid (F8.0) .

variable level hhsz nomer p001 (scale) .

variable level region urban hhid (nominal) .

variable level quarter (ordinal) .

Variable label year "Year" .

Variable label quarter "Quarter" .

Variable label hhid "Household ID" .

Variable label hhsz "Household size (# of members)" .

Variable Label p001 "Original Region ID in string format".

Variable label nomer "Original HH number within region. Used to create hhid".

SORT CASES BY year(A) quarter(A) nomer(A) p001(A).

SAVE OUTFILE='C:\1 Tajikistan\Data\hh12.sav'

/keep = year quarter hhid region urban hhsz year_q y_q_u_r nomer p001.

GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

```
*****
*****              HH HEADING              *****
*****              ГЛАВАДОМОХОЗЯЙСТВА      *****
*****              Codes and calories        *****
*****              Кодыи калории            *****
```

***Start with a file that already has the codes and add the code name (VALUE LABELS) TO VARIABLE "CODE"

***Начните с файла, который уже имеет коды, и присвойте название кода (МЕТКИ ПЕРЕМЕННЫХ) переменной "CODE"

GET FILE='C:\1 Tajikistan\Data\4 quarters\codes_kcal.sav'.

SORT CASES BY code(A).

SAVE OUTFILE='C:\1 Tajikistan\Data\codes.sav'
/COMPRESSED.

GET FILE='C:\1 Tajikistan\Data\codes.sav'.

***** Codes and calories *****

***** Кодыкалории *****

***** Select quarters, sort files, doble entries, others *****

***** Выберите кварталы, файлы сортировки, дублирующие записи, другое *****

GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S00_1_3_11_household_incomes.sav'.

***Select from 1st quarter of 2014 to 4th quarter of 2014 .

***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.

USE ALL.

SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).

EXECUTE.

SORT CASES BY year(A) quarter(A) nomer(A) p001(A).

COMPUTE only1=1.

EXECUTE.

IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001)) only1=2.

EXECUTE.

FREQUENCIES VARIABLES=only1

/ORDER=ANALYSIS.

***Only 1's OK, no double entries.

***Только 1-й в порядке, нет никаких дублирующих записей.

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S00_1_3_11_household_incomes.sav'

/keep = nomer p001 p002 p003 p004 p005 p006 p101 p102 p103 p104 p105 p106 p107 p108

p109 p110 p111 p112 p113 p114 p115 p116 p301 p302 p303 p304 p305 p306 p307 p308 p309 p310 p311 p312

p313 p314 p315 p316 p317 p318 p319 p320 p321 p322 p323 p324 p325 p326 p1101 p1102 p1103 p1104 p1105

p1106 p1107 p1108 p1109 p1110 p1111 p1112 p1113 p1114 p1115 p1116 p1117 p1118 p1119 p1120 p1121

p1122 p1123 p1124 p1125 p1126 flag_err year quarter only1 .

GET FILE='C:\1 Tajikistan\Data\F1S00_1_3_11_household_incomes.sav'.

***variables corresponding to the questionnaire and common to all other quarters .

***переменные соответствуют вопроснику и являются общими для всех остальных кварталов.

GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S02_labor.sav'.

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .

***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.

USE ALL.

SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).

EXECUTE.

Compute extra = kod_str.

Execute .

SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).

COMPUTE only1=1.

EXECUTE.

IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra = LAG(extra)) only1=2.

EXECUTE.

FREQUENCIES VARIABLES=only1

/ORDER=ANALYSIS.

***Only 1's OK, no double entries.

***Только 1-й в порядке, нет никаких дублирующих записей.

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S02_labor.sav'

/keep = nomer p001 p002 p003 p004 flag_err year quarter kod_str p202 p203 p204 p205 p206 only1 .

GET FILE='C:\1 Tajikistan\Data\F1S02_labor.sav'.

GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S04_foodpurchases.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .

***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

ILTER OFF.

USE ALL.

SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).

EXECUTE.

rename variable (kod_str = borrar) .

Compute kod_str = NUMBER(borrar, F10.0) .

Execute .

Compute extra = kod_str .
Execute .

SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).

COMPUTE only1=1.
EXECUTE.

IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra = LAG(extra)) only1=2.
EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.

***Только 1-й в порядке, нет никаких дублирующих записей.

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S04_foodpurchases.sav'
/keep = nomer p001 p002 p003 p004 kod_str p402 p403 year quarter only1 .

GET FILE='C:\1 Tajikistan\Data\F1S04_foodpurchases.sav'.

GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S05_clothes.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .

***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

ILTER OFF.

USE ALL.

SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).

EXECUTE.

Compute extra = kod_str .
Execute .

SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).

COMPUTE only1=1.

EXECUTE.

IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra = LAG(extra)) only1=2.

EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.

***Только 1-й в порядке, нет никаких дублирующих записей.

***string variables .

***строковыепеременные.

```
rename variable (p501= borrar) .
Compute p501 = NUMBER(borrar, F8.0) .
```

```
Compute code = p501 .
execute .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S05_clothes.sav'
/keep = nomer p001 p002 p003 p004 code kod_str p501 p502 p503 p504 p505 p506 p507 p508
p509 p510 p511 year quarter only1 .
```

```
*****
GET FILE='C:\1 Tajikistan\Data\F1S05_clothes.sav'.
*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S06_furniture.sav' .
```

```
***Select from 3rd. quarter of 2012 to 2d. quarter of 2013 .
***Выберите данные, начиная от 3 квартала 2012 года до 2 квартала 2013 года.
```

```
FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2012.3 & (Year + (quarter/ 10)) <= 2013.2).
EXECUTE.
```

```
Compute extra = kod_str .
Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.
```

```
FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.
```

```
***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.
```

```
***string variables .
***строковые переменные.
```

```
rename variable (p601= borrar) .
Compute p601 = NUMBER(borrar, F8.0) .
```

```
Compute code = p601 .
execute .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S06_furniture.sav'
/keep = nomer p001 p002 p003 p004 code kod_str p601 p602 p603 p604 p605 p606 p607 p608
p609 year quarter only1.
```

```

*****
GET FILE='C:\1 Tajikistan\Data\FIS06_furniture.sav'.

*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\FIS07_personal.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.

Compute extra = kod_str .
Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.

***string variables .
***строковые переменные.

rename variable (p701= borrar) .
Compute p701 = NUMBER(borrar, F8.0) .

Compute code = p701 .
execute .

SAVE OUTFILE='C:\1 Tajikistan\Data\FIS07_personal.sav'
/keep = nomer p001 p002 p003 p004 code kod_str p701 p702 p703 p704 p705 p706 p707 p708
p709 year quarter only1 .

*****
GET FILE='C:\1 Tajikistan\Data\FIS07_personal.sav'.
*****

GET FILE='C:\1 Tajikistan\Data\4 quarters\FIS08_services.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

```

```
FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.
```

```
Compute extra = kod_str .
```

```
Execute .
```

```
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
```

```
COMPUTE only1=1.
```

```
EXECUTE.
```

```
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra = LAG(extra)) only1=2.
```

```
EXECUTE.
```

```
FREQUENCIES VARIABLES=only1
```

```
/ORDER=ANALYSIS.
```

```
***Only 1's OK, no double entries.
```

```
***Только 1-й в порядке, нет никаких дублирующих записей.
```

```
***string variables .
```

```
***строковыепеременные.
```

```
rename variable (p801= borrar) .
```

```
Compute p801 = NUMBER(borrar, F8.0) .
```

```
Compute code = p801 .
```

```
execute .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S08_services.sav'
```

```
/keep = nomer p001 p002 p003 p004 code kod_str p801 p802 p803 p804 p805 year quarter only1 .
```

```
*****.
```

```
GET FILE='C:\1 Tajikistan\Data\F1S08_services.sav'.
```

```
*****.
```

```
GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S09_foodsales.sav' .
```

```
***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
```

```
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.
```

```
FILTER OFF.
```

```
USE ALL.
```

```
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
```

```
EXECUTE.
```

```
Compute extra = kod_str .
```

```
Execute .
```

```
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
```

```
COMPUTE only1=1.
```

```
EXECUTE.
```

```
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra = LAG(extra)) only1=2.  
EXECUTE.
```

```
FREQUENCIES VARIABLES=only1  
/ORDER=ANALYSIS.
```

```
***Only 1's OK, no double entries.  
***Только 1-й в порядке, нет никаких дублирующих записей.
```

```
***string variables .  
***строковыепеременные.
```

```
rename variable (p901= borrow) .  
Compute p901 = NUMBER(borrow, F8.0) .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S09_foodsales.sav'  
/keep = nomer p001 p002 p003 p004 kod_str p901 p902 p903 p904 year quarter only1 .
```

```
*****  
GET FILE='C:\1 Tajikistan\Data\F1S09_foodsales.sav'.
```

```
*****  
GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S10_livestockpurchases.sav' .
```

```
***Select from 1st quarter of 2014 to 4th. quarter of 2014 .  
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.
```

```
FILTER OFF.  
USE ALL.  
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).  
EXECUTE.
```

```
Compute extra = kod_str .  
Execute .  
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).  
COMPUTE only1=1.  
EXECUTE.  
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra = LAG(extra)) only1=2.  
EXECUTE.
```

```
FREQUENCIES VARIABLES=only1  
/ORDER=ANALYSIS.
```

```
***Only 1's OK, no double entries.  
***Только 1-й в порядке, нет никаких дублирующих записей.
```

```
***string variables .  
***строковыепеременные.
```

```

rename variable (p1001= borrar) .
Compute p1001 = NUMBER(borrar, F8.0) .

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S10_livestockpurchases.sav'
/keep = nomer p001 p002 p003 p004 kod_str p1001 p1002 p1003 p1004 year quarter only1.

*****
GET FILE='C:\1 Tajikistan\Data\F1S10_livestockpurchases.sav'.

*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\F1S12_businesses.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.

Compute extra = kod_str .
Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.

***string variables .
***строковые переменные.

rename variable (p1201= borrar) .
Compute p1201 = NUMBER(borrar, F8.0) .

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S12_businesses.sav'
/keep = nomer p001 p002 p003 p004 kod_str p1201 p1202 p1203 p1204 year quarter only1.

*****
GET FILE='C:\1 Tajikistan\Data\F1S12_businesses.sav'.

*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\F2S00_F3S02_heading.sav' .

```

```
***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.
```

```
FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.
```

```
Compute extra = 1 .
Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.
```

```
FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.
```

```
***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.
```

```
***string variables .
***строковыепеременные.
```

```
*rename variable (p801= borrow) .
*Compute p801 = NUMBER(borrow, F8.0) .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F2S00_F3S02_heading.sav'
/keep = nomer p001 p002 p003 p004 p005 p006 p921_2 p921_3 p921_4 p921_5 p921_6 p921_7
p922_2 p922_3 p922_4 p922_7 p923_2 p923_3 p923_4 p923_7 p924_2 p924_3 p924_4 p924_7 p925_2 p925_3
p925_4 p925_7 p926_3 p926_4 p926_5 p926_6 p926_7 p927_3 p927_4 p927_5 p927_6 p927_7 p928_2 p928_3
p928_4 p928_5 p928_6 p928_7 err_forma0 year quarter only1 .
```

```
*****
GET FILE='C:\1 Tajikistan\Data\F2S00_F3S02_heading.sav'.
```

```
*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\F2S01_food.sav' .
```

```
***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.
```

```
FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.
```

```
***Only observatios with value in any of the variables:
```



```
FILTER OFF.
USE ALL.
SELECT IF (p202 > 0 or p203 > 0 or p204 > 0 or p205 > 0 or p206 > 0 or p207 > 0 or p208 > 0 or p209
> 0 or p210 > 0 or p211 > 0 or p212 > 0 or p213 > 0 or p214 > 0 or p215 > 0 or p216 > 0 or p217 > 0 ).
EXECUTE.
```

```
Compute extra = NUMBER (p201, F10.0) .
Execute .
```

```
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
```

```
COMPUTE only1=1.
```

```
EXECUTE.
```

```
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
```

```
EXECUTE.
```

```
FREQUENCIES VARIABLES=only1
```

```
/ORDER=ANALYSIS.
```

```
***Only 1's OK, no double entries.
```

```
***Только 1-й в порядке, нет никаких дублирующих записей.
```

```
***string variables .
```

```
***строковыепеременные.
```

```
rename variable (p201= borrow) .
```

```
Compute p201 = NUMBER(borrow, F8.0) .
```

```
execute.
```

```
COMPUTE code = P201.
```

```
EXECUTE .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F2S01_food.sav'
```

```
/keep = nomer p001 p002 p003 p004 code p201 p202 p203 p204 p205 p206 p207 p208 p209 p210
```

```
p211 p212 p213 p214 p215 p216 p217 year quarter only1 .
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Data\F2S01_food.sav'.
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Data\4 quarters\F2S02_fuel_hay.sav' .
```

```
***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
```

```
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.
```

```
FILTER OFF.
```

```
USE ALL.
```

```
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
```

```
EXECUTE.
```

```
Compute extra = NUMBER(p301, F10.0) .
```

```

Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.

***string variables .
***строковые переменные.

rename variable (p301= borrar) .
Compute p301 = NUMBER(borrar, F8.0) .

SAVE OUTFILE='C:\1 Tajikistan\Data\F2S02_fuel_hay.sav'
/keep = nomer p001 p002 p003 p004 p301 p302 p303 p304 p305 p306 p307 p308 p309 p310
p311 p312 year quarter only1.

*****
GET FILE='C:\1 Tajikistan\Data\F2S02_fuel_hay.sav'.
*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\F3S01_animals1.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.

Compute extra = NUMBER(p301, F10.0) .
Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.

```

```

***string variables .
***строковыепеременные.

rename variable (p301= borrar) .
Compute p301 = NUMBER(borrar, F8.0) .

SAVE OUTFILE='C:\1 Tajikistan\Data\F3S01_animals1.sav'
/keep = nomer p001 p002 p003 p004 p301 p302 p303 p304 p305 p306 p307 p308 p309 p310
p311 p312 year quarter only1 .

*****
GET FILE='C:\1 Tajikistan\Data\F3S01_animals1.sav'.

*****
GET FILE='C:\1 Tajikistan\Data\4 quarters\F3S02_animals2.sav' .

***Select from 1st quarter of 2014 to 4th. quarter of 2014 .
***Выберите данные, начиная от 1 квартала 2014 года до 4 квартала 2014 года.

FILTER OFF.
USE ALL.
SELECT IF ((Year + (quarter/ 10)) >= 2014.1 & (Year + (quarter/ 10)) <= 2014.4).
EXECUTE.

Compute extra = NUMBER(p301, F10.0) .
Execute .
SORT CASES BY year(A) quarter(A) nomer(A) p001(A) extra (A).
COMPUTE only1=1.
EXECUTE.
IF (year = LAG(year) & quarter = LAG(quarter) & nomer = LAG(nomer) & p001 = LAG(p001) & extra =
LAG(extra)) only1=2.
EXECUTE.

FREQUENCIES VARIABLES=only1
/ORDER=ANALYSIS.

***Only 1's OK, no double entries.
***Только 1-й в порядке, нет никаких дублирующих записей.

***string variables .
***строковыепеременные.

rename variable (p301= borrar) .
Compute p301 = NUMBER(borrar, F8.0) .

SAVE OUTFILE='C:\1 Tajikistan\Data\F3S02_animals2.sav'
/keep = nomer p001 p002 p003 p004 p301 p322 p323 p324 p325 p326 p327 year quarter only1.

*****
GET FILE='C:\1 Tajikistan\Data\F3S02_animals2.sav'.

```

 ***The rest of the files are collected only once a year and we had no information for 2013 and do not know for which
 ***Остальные файлы собираются только раз в год и у нас не было никакой информации за 2013 год, и мы не знаем, какие
 ***HH quarters it does correspond.
 ***Имеется несоответствие в кварталах, где расположены домохозяйства.

***** Select quarters, sort files, double entries, others *****
 ***** Выберите кварталы, файлы сортировки, дублирующие записи, другое *****

***** Adding the heading to data file *****
 ***** Добавление заголовка к файлу данных *****

GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

MATCH FILES /TABLE=*
 /FILE='C:\1 Tajikistan\Data\F1S00_1_3_11_household_incomes.sav'
 /BY year quarter nomer p001.
 EXECUTE.
 INSERT FILE = "C:\1 Tajikistan\Data\value labels 1 2 3 4.sps".

VARIABLE LABELS P005 "Development period".
 VARIABLE LABELS P006 "Cumulative amount 1-5".
 Variable labels p101 "# of household members" .
 Variable labels p301 "Labor income in Somoni (sect. 2 gr. 3 page 16)" .
 Variable labels p1101 "Food expenses in Somoni (p. 4 code 480 gr. 3)" .

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S00_1_3_11_household_incomes.sav'
 /keep = year quarter hhid region urban hhsz year_q y_q_u_r nomer p001 p002
 p003 p004 p005 p006 p101 p102 p103 p104 p105 p106 p107 p108 p109 p110 p111 p112 p113 p114 p115 p116
 p301 p302 p303 p304 p305 p306 p307 p308 p309 p310 p311 p312 p313 p314 p315 p316 p317 p318 p319 p320
 p321 p322 p323 p324 p325 p326 p1101 p1102 p1103 p1104 p1105 p1106 p1107 p1108 p1109 p1110 p1111
 p1112 p1113 p1114 p1115 p1116 p1117 p1118 p1119 p1120 p1121 p1122 p1123 p1124 p1125 p1126 only1 .

***** *
 GET FILE='C:\1 Tajikistan\Data\F1S00_1_3_11_household_incomes.sav'.

 GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

MATCH FILES /TABLE=*
 /FILE='C:\1 Tajikistan\Data\F1S02_labor.sav'
 /BY year quarter nomer p001.
 EXECUTE.

INSERT FILE = "C:\1 Tajikistan\Data\value labels 1 2 3 4.sps".

VARIABLE LABELS kod_str "Item code number".
 VARIABLE LABELS p202 "Individual code (see Form 7)".

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S02_labor.sav'  
/keep = year quarter hhid region urban hhsizе year_q y_q_u_r nomer p001 p002  
p003 p004 kod_str p202 p203 p204 p205 p206 only1 .
```

```
***** *
```

```
GET FILE='C:\1 Tajikistan\Data\F1S02_labor.sav'.
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.
```

```
MATCH FILES /TABLE=*
```

```
/FILE='C:\1 Tajikistan\Data\F1S04_foodpurchases.sav'
```

```
/BY year quarter nomer p001.
```

```
EXECUTE.
```

```
VARIABLE LABELS p402 "Kg. of food purchased".
```

```
VARIABLE LABELS p403 "Food purchases in Somoni".
```

```
Compute code = kod_str.
```

```
EXECUTE.
```

```
FORMAT CODE (F8.0) .
```

```
VARIABLE LABEL code "Code".
```

```
INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S04_foodpurchases.sav'
```

```
/keep = year quarter hhid region urban hhsizе year_q y_q_u_r nomer p001 p002
```

```
p003 p004 code kod_str p402 p403 only1.
```

```
***** *
```

```
GET FILE='C:\1 Tajikistan\Data\F1S04_foodpurchases.sav'.
```

```
*****
```

```
***Note for file F1S05_clothes.sav the variable frequencies do not match the questionnaire labels.
```

```
***Обратите внимание на то, что переменные частоты в файле "F1S05_clothes.save" не совпадают с метками  
в вопроснике.
```

```
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.
```

```
MATCH FILES /TABLE=*
```

```
/FILE='C:\1 Tajikistan\Data\F1S05_clothes.sav'
```

```
/BY year quarter nomer p001.
```

```
EXECUTE.
```

```
FORMAT CODE (F8.0) .
```

```
VARIABLE LABEL code "Code".
```

```
INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S05_clothes.sav'
```

/COMPRESSED.

***** *

GET FILE='C:\1 Tajikistan\Data\F1S05_clothes.sav'.

***Note for file F1S06_furniture.sav the variable frequencies for P602 do not match the questionnaire labels.

***Обратите внимание на то, что переменные частоты относительно P602 в файле "F1S06_furniture.sav" не совпадают с метками в вопроснике.

GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

MATCH FILES /TABLE=*

/FILE='C:\1 Tajikistan\Data\F1S06_furniture.sav'

/BY year quarter nomer p001.

EXECUTE.

VARIABLE LABELS p604 "Furniture purchases in Somoni".

VARIABLE LABELS p606 "Furniture purchases for gifts in Somoni (out of p604 quantities)".

VARIABLE LABELS p608 "Furniture received as gifts value in Somoni".

FORMAT CODE (F8.0) .

VARIABLE LABEL code "Code".

INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S06_furniture.sav'

/COMPRESSED.

***** *

GET FILE='C:\1 Tajikistan\Data\F1S06_furniture.sav'.

GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

MATCH FILES /TABLE=*

/FILE='C:\1 Tajikistan\Data\F1S07_personal.sav'

/BY year quarter nomer p001.

EXECUTE.

VARIABLE LABELS p704 "Personal items purchases in Somoni".

VARIABLE LABELS p706 "Personal items for gifts in Somoni (out of p704 quantities)".

VARIABLE LABELS p708 "Personal items received as gifts value in Somoni".

FORMAT CODE (F8.0) .

VARIABLE LABEL code "Code".

INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S07_personal.sav'

/COMPRESSED.

***** *

GET FILE='C:\1 Tajikistan\Data\F1S07_personal.sav'.

```
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.
```

```
MATCH FILES /TABLE=*  
/FILE='C:\1 Tajikistan\Data\F1S08_services.sav'  
/BY year quarter nomer p001.  
EXECUTE.
```

```
FORMAT CODE (F8.0) .  
VARIABLE LABEL code "Code".  
INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".  
FORMATS p801 (F4.0) .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S08_services.sav'  
/COMPRESSED.
```

```
***** *
```

```
GET FILE='C:\1 Tajikistan\Data\F1S08_services.sav'.
```

```
***** *
```

```
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.
```

```
MATCH FILES /TABLE=*  
/FILE='C:\1 Tajikistan\Data\F1S09_foodsales.sav'  
/BY year quarter nomer p001.  
EXECUTE.
```

```
VARIABLE LABELS p903 "Value of animals/food/fuel/hay sold in Somoni".
```

```
compute code = p901 .  
EXECUTE .
```

```
FORMAT CODE (F8.0) .  
VARIABLE LABEL code "Code".  
INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".
```

```
SAVE OUTFILE='C:\1 Tajikistan\Data\F1S09_foodsales.sav'  
/COMPRESSED.
```

```
***** *
```

```
GET FILE='C:\1 Tajikistan\Data\F1S09_foodsales.sav'.
```

```
***** *
```

```
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.
```

```
MATCH FILES /TABLE=*  
/FILE='C:\1 Tajikistan\Data\F1S10_livestockpurchases.sav'  
/BY year quarter nomer p001.  
EXECUTE.
```

```
VARIABLE LABELS p1003 "Animal purchases in Somoni".
```

```
compute code = p1001 .
```

```

EXECUTE .

FORMAT CODE (F8.0) .
VARIABLE LABEL code "Code".
INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S10_livestockpurchases.sav'
/COMPRESSED.
*****
GET FILE='C:\1 Tajikistan\Data\F1S10_livestockpurchases.sav'.

*****
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

MATCH FILES /TABLE=*
/FILE='C:\1 Tajikistan\Data\F1S12_businesses.sav'
/BY year quarter nomer p001.
EXECUTE.

INSERT FILE = "C:\1 Tajikistan\Data\value labels 1 2 3 4.sps".

VARIABLE LABELS kod_str "Item code number".
VARIABLE LABELS p1203 "Non-food sales in Somoni".

SAVE OUTFILE='C:\1 Tajikistan\Data\F1S12_businesses.sav'
/COMPRESSED.

*****
GET FILE='C:\1 Tajikistan\Data\F1S12_businesses.sav'.

*****
GET FILE='C:\1 Tajikistan\Data\hh12.sav'.

MATCH FILES /TABLE=*
/FILE='C:\1 Tajikistan\Data\F2S01_food.sav'
/BY year quarter nomer p001.
EXECUTE.

Compute kod_str = 0.
execute .

FORMAT CODE (F8.0) .
VARIABLE LABEL code "Code".
INSERT FILE = "C:\1 Tajikistan\Data\value labels code.sps".

SAVE OUTFILE='C:\1 Tajikistan\Data\F2S01_food.sav'
/drop = kod_str.

*****
GET FILE='C:\1 Tajikistan\Data\F2S01_food.sav'.

```

***** Adding the heading to data file *****
***** Добавление заголовка к файлу данных *****

FILE 1/ФАЙЛ 1 – FOOD/ПРОДОВОЛЬСТВИЕ

*variable level Variable1 Variable2 (scale) .
*variable level Variable1 Variable2 (nominal) .
*variable level Variable1 Variable2 (ordinal) .

MASTER FOOD FILE

ОСНОВНОЙ ФАЙЛ О ПРОДОВОЛЬСТВИИ

***Create a Master file with all the food information relevant for the analysis
***Создайте главный файл со всей информацией о продуктах питания, необходимой для проведения анализа

STEP 1: ESTIMATE UNIT VALUE FOR FOOD

***** ШАГ 1: РАССЧИТАЙТЕ УДЕЛЬНЫЙ ПОКАЗАТЕЛЬ ПО ПРОДУКТАМ
ПИТАНИЯ *****

***Estimate unit values for food from Form1-S4. To estimate consumption values from Form2-S1. Make sure outliers are
***Рассчитайте средний удельный показатель по продовольственной продукции из Формы 1-S4. Оцените объемы потребления согласно Форме 2-S1. Убедитесь в том, что выпадающие значения
*** ID, replaced and unit values are estimated at the household level with own HH information or from averages.
*** идентификационный номер заменен и удельные показатели оцениваются на уровне домохозяйств согласно собственной информации домохозяйств или усредненным значениям.

STEP 2: ESTIMATE FOOD CONSUMPTION VALUE

***** ШАГ 2: РАССЧИТАЙТЕ ВЕЛИЧИНУ ПОТРЕБЛЕНИЯ ПРОДУКТОВ
ПИТАНИЯ *****

***Estimate the value of food consumed including cases with and without univ values, ID and replae outliers.
***Рассчитайте величину по потребляемым продуктам питания, включая случаи с и без единичной стоимости, идентификационные номера и выпадающие значения.

MASTER FOOD FILE

ОСНОВНОЙ ФАЙЛ О ПРОДОВОЛЬСТВИИ

***Create a Master file with all the food information relevant for the analysis
***Создайте главный файл со всей информацией о продуктах питания, необходимой для проведения анализа

****The food information comes from two files: F1S04_foodpurchases.sav and F2S01_food.sav: merge the files
****Информация о продуктах питания исходит из двух файлов: F1S04_foodpurchases.sav и F2S01_food.sav:

объедините файлы

***Sort both file to keep all variables.

***Упорядочите оба файла для того, чтобы сохранить все переменные.

```
GET FILE='C:\1 Tajikistan\Data\F2S01_food.sav'.
SORT CASES BY year(A) quarter(A) hhid(A) region(A) urban(A) hhsz(A) year_q(A) y_q_u_r(A) p001(A)
code(A) .
SAVE OUTFILE='C:\1 Tajikistan\Analysis\borrar10.sav'
/COMPRESSED.
```

```
GET FILE='C:\1 Tajikistan\Data\F1S04_foodpurchases.sav'.
SORT CASES BY year(A) quarter(A) hhid(A) region(A) urban(A) hhsz(A) year_q(A) y_q_u_r(A) p001(A)
code(A) .
```

```
MATCH FILES /FILE=*
/FILE='C:\1 Tajikistan\Analysis\borrar10.sav'
/RENAME (nomer only1 p002 p003 p004 = d0 d1 d2 d3 d4)
/BY year quarter hhid region urban hhsz year_q y_q_u_r p001 code
/DROP= d0 d1 d2 d3 d4.
EXECUTE.
```

***Add the CPI information .

***Добавьте информацию о ИПЦ.

```
MATCH FILES /FILE=*
/TABLE='C:\1 Tajikistan\Data\cpi.sav'
/BY year quarter.
EXECUTE.
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\borrar11.sav'
/COMPRESSED.
```

```
GET FILE='C:\1 Tajikistan\Analysis\borrar11.sav'.
```

***Cleaning the file to leave only relevant information and create a variable to explain differences between the two sources.

***Очистите файл для того, чтобы оставить только необходимую информацию, и задайте переменную с тем, чтобы объяснить различия между двумя источниками.

```
GET FILE='C:\1 Tajikistan\Analysis\borrar11.sav'.
```

***290,050 lines (строки).

***290,050 строки.

***Do not use codes that are totals or shares

***Не используйте коды, которые представляют итоги или доли

*** 480 Total food for Form1, Section4

*** 480 Итого продукты питания для Формы 1, Раздела 4

*** 486 Total Alcohol, Form1, SEction2

*** 486 Итого алкогольные напитки, Форма 1, Раздел 2

*** 493 Out of total costs, gift share of Food: Form 1 Section 4

*** 493 Из общих расходов, доля подаренных продуктов питания: Форма 1, Раздел 4

*** 494 Out of total costs, gift share of Alcohol: Form 1 Section 4

*** 494 Из общих расходов, доля подаренных алкогольных напитков: Форма 1, Раздел 4

*** 495 Received as a gift: Food, Form 1 Section 4

*** 495 Получено в качестве подарка: продукты питания, Форма 1, Раздел 4

*** 499 Total nof row for Form 2, Setion 1

*** 499 Общее количество рядов для Формы 2, Раздела 1

***9602 Total non purchased or non consumed (codes491-496)

***9602 Общее количество неприобретенных либо непотребленных (коды 491-496)

FILTER OFF.

USE ALL.

SELECT IF (code ~= 480 and code ~= 486 and code ~= 493 and code ~= 494 and code ~= 495 and code ~= 499 and code ~= 9602).

EXECUTE.

***262,534 lines (строки).

***Codes not reported in Form2 S1 but with units in Form 1 S4

***Коды, о которых не сообщается в Форме 2 S1, но имеющие значения в Форме 1 S4

481 Vodka = 619

481 водка = 619

482 Liquer = 6

482 ликер = 6

483 Fruit and berry wine factory = 16

483 завод по производству фруктового и ягодного вина = 16

485 Beer = 72

***Use the units reported in Section 1 to fill in Section 2 . Asume only purchases took place, no other source and

***Используйте единиц измерения, представленные в Разделе 1 для того, чтобы заполнить раздел 2.

Предположим, что только покупки имели место, и нет другого какого-либо источника и

not old or new stock. For: 481 Vodka = 619, 482 Liquer = 6, 483 Fruit and berry wine factory = 16 and 485 Beer = 72,

не являются старыми или новыми видами ассортимента. Для: 481 водки = 619, 482 ликера = 6, 483 завода фруктовых и ягодных вин = 16 и 485 пива = 72,

IF (MISSING(p201) & (code =481 or code =482 or code =483 or code =485)) p203=p402.

IF (MISSING(p201) & (code =481 or code =482 or code =483 or code =485)) p208=p402.

IF (MISSING(p201) & (code =481 or code =482 or code =483 or code =485)) p209=p402.

IF (MISSING(p201) & (code =481 or code =482 or code =483 or code =485)) p216=p402.

EXECUTE.

IF (MISSING(p201) & (code =481 or code =482 or code =483 or code =485)) p202=0 .

IF (MISSING(p201) & (code =481 or code =482 or code =483 or code =485)) p204=0 .

```
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p205=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p206=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p207=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p210=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p211=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p212=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p213=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p214=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p215=0 .
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p217=0 .
EXECUTE.
```

```
IF ( MISSING(p201) & ( code =481 or code =482 or code =483 or code =485)) p201=0 .
EXECUTE.
```

***3 cases out of 7,985 for product 450 Candy, halva, etc. reported in Form 1 S4 but not reported
*in Section 2 F1. Assume the three cases are a mistake.

***О 3 случаях из 7,985 по продуктам, 450 по конфетам, халве и т.д. сообщается в Форме 1 S4, но об этом
нет отчета

*в Разделе 2 F1. Предположим, что все три случая являются ошибочными

```
FILTER OFF.
```

```
USE ALL.
```

```
SELECT IF (p201 >= 0 | code ~= 450).
```

```
EXECUTE.
```

***262,531 lines (строки).

***For one case HHID 943507, 2012 quarter 3 code 412, the reported 100,000 units in P208 are extra, recode them
to 0.

***По одному случаю HHID 943507, 2012 год, 3 квартал код 412, были даны сообщения по 100000
единицам в Форме P208, которые являются дополнительными, перекодируйте их на 0.

```
DO IF (hhid= 943507 and year = 2012 and quarter = 3 & code = 412 ).
```

```
RECODE p209 (100000=0).
```

```
END IF.
```

```
EXECUTE.
```

***Make sure the sum in Form2 S1 is correct.

***Убедитесь в том, что сумма, указанная в Форме 2 S1, является правильной.

```
IF (p203+p204+p205+p206+p207 = p208) check1=1.
```

```
IF (p209+p210+p211+p212+p213+p214+p215 = p216) check2=1.
```

***Codes 491, 492, 466 and 464 do not have units .

***Коды 491, 492, 466 и 464 не имеют значений.

```
IF ( code = 491 or code = 492 or code = 464 or code = 466 or ( (p202 + p208) = (p216 + p217) ) ) check3=1.
```

```
EXECUTE.
```

```
FREQUENCIES VARIABLES=check3
```

```
/ORDER=ANALYSIS.
```

***Create a variable to explain differences between the two food files quantities.
***Задайте переменную для того, чтобы объяснить различия между квинтилями двух файлов о продуктах питания.

***same values, no discrepancy
***те же значения, никаких расхождений

```
COMPUTE f1_f2=0.  
IF (p402 = p203) f1_f2=1.  
EXECUTE.
```

***products without units
***продукты без единицы измерения

```
DO IF (code = 491 or code = 492 or code = 464 or code = 466).  
RECODE f1_f2 (0=2).  
END IF.  
EXECUTE.
```

***6 cases reported units (incorrectly). recode variable p402 to missing).
***В 6 случаях сообщалось о количестве (неверно). Перекодируйте переменную p402 как недостающую).

```
DO IF (code = 491 or code = 492 or code = 464 or code = 466).  
RECODE p402 (ELSE=SYSMIS).  
END IF.  
EXECUTE.
```

***3,629 cases reported 0 personal consumption and should not be used to estimate consumption .
***В 3,629 случаях сообщалось о значении 0 касательно личного потребления, и это значение не должно использоваться для расчета потребления.

```
FILTER OFF.  
USE ALL.  
SELECT IF ( MISSING(p209) or p209 > 0).  
EXECUTE.
```

***258,915 lines (строки).

***Source of product is not purchases but: production, processing, gift received, or other income.
***Источником продукта не является покупка, а: производство, переработка, полученный подарок или иной доход.

```
DO IF (MISSING(p402) & MISSING(p403) and p203 = 0).  
RECODE f1_f2 (0=3).  
END IF.  
EXECUTE.
```

***2 cases out of 3,174 chocolates (code 451) reported in Form 2-S1 and not in Form 2-S4. Assume 2 cases as mistakes .
***О 2 случаях из 3,174 плиток шоколада (код 451) сообщается в Форме 2-S1, а не в Форме 2-S4.

Предположим, что 2 случая являются ошибочными.

```
FILTER OFF.  
USE ALL.  
SELECT IF (code ~= 451 or f1_f2 > 0 or p402 > 0 or p403 > 0).  
EXECUTE.
```

***258,913 lines (строки).

***If no information or 0 values in both forms there is no need to keep the observations
***Если нет информация или значения равны 0 в обеих формах, то нет необходимости проводить наблюдения

```
FILTER OFF.  
USE ALL.  
SELECT IF (p403 > 0 or p216 > 0).  
EXECUTE.
```

***258,912 lines (строки).

***Code 484 is homemade wine and was not included in Form1-S4.
***Код 484 представляет домашнее вино, и он не был включен в Форму 1-S4.

```
DO IF (code = 484).  
RECODE f1_f2 (ELSE=4).  
END IF.  
EXECUTE.
```

value label f1_f2 1"Same Kgr. purchased" 2" Items without units 464, 466, 491 & 492" 3"Source other than purchase"
4"Home made wine not reported in Form1-S4" .

```
FREQUENCIES VARIABLES=f1_f2  
/ORDER=ANALYSIS.
```

***Create a new code variable and merge codes with very small frequencies.
***Создайте новую переменную кода и объедините коды с очень малыми частотами.

```
COMPUTE code2=code.  
EXECUTE.
```

***Run the file "value labels codes.sps" changing the name from "code" to "code2" to add the data labels .
***There are 10 codes with small frequencies (1 to 17 households for each). They will be recoded to very similar codes
***with much higher frequencies (47 or more). Exception is mushrooms (fresh (11) and dry (2)) due to lack of similar product.

```
***Old (#) TO New (#)  
404 Rye flour 1 TO 403 Wheat Flour 11959  
405 Flour, other 1 TO 403 Wheat Flour 11959  
430 Pork 3 TO 429 Mutton and goat meat 1699
```

433 The meat of other animals 11 TO 429 Mutton and goat meat 1699
435 The meat of wild animals and birds 2 TO 429 Mutton and goat meat 1699
457 Fish, salted, dried herring including 17 TO 456 Fish, fresh 499
460 Dried Mushrooms 2 TO 459 Fresh mushrooms 11
482 Liquer 6 TO 481 Wodka 616
483 Fruit and berry wine factory 16 TO 484 Fruit and berry wine homemade 101

***Запустите файл "value labels codes.sps", поменяв название с "code" на "code2" для того, чтобы добавить метки данных.

***Имеется 10 кодов с малыми частотами (от 1 до 17 домохозяйства по каждому). Они будут записаны в виде очень похожих кодов

***с гораздо более высокими частотами (47 или более). Исключение составляют грибы (свежие (11) и сушеные (2)) в связи с отсутствием аналогичного продукта.

***От старых (#) К Новым (#)

404 ржаная мука от 1 ДО 403 пшеничная мука 11959
405 мука, другая от 1 ДО 403 пшеничная мука 11959
430 свинина от 3 ДО 429 баранина и козлятина 1699
433 мясо других животных от 11 ДО 429 баранина и козлятина 1699
435 мясо диких животных и птиц от 2 ДО 429 баранина и козлятина 1699
457 рыба, соленая, сушеная сельдь, включая от 17 ДО 456 рыба, свежая 499
460 сушеные грибы от 2 ДО 459 свежие грибы 11
482 ликер от 6 ДО 481 водка 616
483 завод по производству фруктового и ягодного вина от 16 ДО 484 домашнее фруктовое и ягодное вино 101

RECODE code2 (404 = 403) (405 = 403) (430 = 429) (433 = 429) (435 = 429)
(457 = 456) (460 = 459) (482 = 481) (483 = 484) .

EXECUTE.

***ПРИМИТЕ К СВЕДЕНИЮ

***Add the information about calorie contents.

***Добавьте информацию о содержании калорий.

SORT CASES BY code(A).

MATCH FILES /FILE=*

/RENAME (check1 check2 check3 = d0 d1 d2)

/TABLE='C:\1 Tajikistan\Data\codes.sav'

/RENAME (descript dur group = d3 d4 d5) qty2kcal=kcal

/BY code

/DROP= d0 d1 d2 d3 d4 d5.

EXECUTE.

*Kilocalories for beers: 1 liter is close to 1 Kilogram: 1 Kilogram of regular beer has 410 Kcal

*Килокалории для пива: 1 литр приблизительно равен 1 килограмму: 1 килограмм обычного пива содержит в себе 410 ккал

DO IF (code = 485).

RECODE kcal (SYSMIS=410).

END IF.

EXECUTE.

***for Pork 1 Kilogram has 2,160 Kcal

***В 1 килограмме свинины содержится 2160 ккал

DOIF (code = 430).

RECODE kcal (SYSMIS=2160).

END IF.

EXECUTE.

SAVE OUTFILE='C:\1 Tajikistan\Analysis\food.sav'
/COMPRESSED.

GET FILE='C:\1 Tajikistan\Analysis\food.sav'.

MASTER FOOD FILE

ОСНОВНОЙ ФАЙЛ О ПРОДОВОЛЬСТВИИ

STEP 1: ESTIMATE UNIT VALUE FOR FOOD

ШАГ 1: РАССЧИТАЙТЕ УДЕЛЬНЫЙ ПОКАЗАТЕЛЬ ПО ПРОДУКТАМ

ПИТАНИЯ

GET FILE='C:\1 Tajikistan\Analysis\food.sav'.

***Create variables for food bought (quantity), expenditure, and unit value .

***Задайте переменные по купленным продуктам питания (количество), расходам и единичной стоимости.

COMPUTE food_q_buy=p402.

VARIABLE LABELS food_q_buy 'Quantities of food bought Form1-S4'.

EXECUTE.

COMPUTE food_exp=p403 / cpi.

VARIABLE LABELS food_exp 'Food expenditures in Form1-S4/cpi'.

EXECUTE.

COMPUTE uv_0=RND((food_exp / food_q_buy),0.01).

VARIABLE LABELS uv_0 'Unit Value (cpi adjusted) at the household level'.

EXECUTE.

***All the cases without UV_0 value correspond to the codes previously identify to be without information in Form1-s4

***Все случаи без единичной стоимости UV_0 соответствуют кодам, которые ранее считались как значения без информации в Форме 1-S4

2.00 Items without units 464, 466, 491 & 492: # cases = 7,190

2.00 наименований не имеют единиц измерения 464, 466, 491 и 492: количество случаев = 7,190

3.00 Source other than purchase: # cases = 37,403

3.00 источник, отличный от покупки: количество случаев = 37,403

4.00 Home made wine not reported in Form1-S4: # cases = 101
4.00 О домашнем вине не сообщается в Форме 1-S4: количество случаев = 101
Total: # cases = 44,694

***For these cases we have to estimate consumption value by applying the UV from the same household or averages.

***Для этих случаев мы должны оценить значение потребления путем применения удельного показателя из того же домохозяйства или используя усредненные значения.

***Before estimating UV averages, detect outliers based on the estatictics for the year, quarter, Urban, Region, Product.

***Перед тем, как вычислить среднюю единичную стоимость, выявите выпадающие значения на основе статистических

*** данных за год, квартал, по городской местности, региону, продукту.

***We estimate several means & standard deviations to avoid using values from very small number of observations.

***Мы берем в расчет несколько средних значений и стандартных отклонений для того, чтобы избежать использования

*** величин в результате очень небольшого количества наблюдений.

***For this exercise we use 26 as the minimum number of observatrions. We know one item (mushrooms) will not qualify

***Для этого упражнения мы используем 26 как минимальное число наблюдений. Мы знаем, что один элемент (грибы) не является достаточным

```
SORT CASES BY y_q_u_r code2.
```

```
AGGREGATE
```

```
/OUTFILE=* MODE=ADDVARIABLES
```

```
/PRESORTED
```

```
/BREAK=y_q_u_r code2
```

```
/uv_0_mean0 'By Year, quarter, urban/rural, Region and code2'=MEAN(uv_0)
```

```
/uv_0_sd0=SD(uv_0)
```

```
/n_0=N.
```

```
SORT CASES BY year_q region code2.
```

```
AGGREGATE
```

```
/OUTFILE=* MODE=ADDVARIABLES OVERWRITEVARS=YES
```

```
/PRESORTED
```

```
/BREAK=year_q region code2
```

```
/uv_0_mean1 'By Year, urban'=MEAN(uv_0)
```

```
/uv_0_sd1=SD(uv_0)
```

```
/n_1=N.
```

```
SORT CASES BY year_q urban code2.
```

```
AGGREGATE
```

```
/OUTFILE=* MODE=ADDVARIABLES
```

```
/PRESORTED
```

```
/BREAK=year_q urban code2
```

```
/uv_0_mean2 'By Year, quarter, urban/rural and code2'=MEAN(uv_0)
```

```
/uv_0_sd2=SD(uv_0)
```

```
/n_2=N.
```

```

SORT CASES BY year_q code2.
AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES
/PRESORTED
/BREAK=year_q code2
/uv_0_mean3 'By Year, quarter and code2'=MEAN(uv_0)
/uv_0_sd3=SD(uv_0)
/n_3=N.
execute .

```

```

IF (n_0 >= 26 ) uv_0_mean=uv_0_mean0.
IF (n_1 >= 26 & MISSING(uv_0_mean)) uv_0_mean=uv_0_mean1.
IF (n_2 >= 26 & MISSING(uv_0_mean)) uv_0_mean=uv_0_mean2.
IF ( MISSING(uv_0_mean)) uv_0_mean=uv_0_mean3.
EXECUTE.

```

```

IF (n_0 >= 26 ) uv_0_sd=uv_0_sd0.
IF (n_1 >= 26 & MISSING(uv_0_sd)) uv_0_sd=uv_0_sd1.
IF (n_2 >= 26 & MISSING(uv_0_sd)) uv_0_sd=uv_0_sd2.
IF ( MISSING(uv_0_sd)) uv_0_sd=uv_0_sd3.
EXECUTE.

```

```

IF (n_0 >= 26 ) n=n_0.
IF (n_1 >= 26 & MISSING(n)) n=n_1.
IF (n_2 >= 26 & MISSING(n)) n=n_2.
IF ( MISSING(n)) n=n_3.
EXECUTE.

```

***Estimate Standard deviations from the mean
***Рассчитайте стандартные отклонения от среднего значения .

```

if (uv_0_sd >0) uv_sd_mean = RND(ABS((uv_0 - uv_0_mean)/uv_0_sd),0.1).
EXECUTE.

```

*All the missing cases corresponds to codes 2, 3 or 4 in variable f1_f2 .
*Все недостающие случаи соответствует кодам 2, 3 или 4 в переменной f1_f2.

***Replace Unit values if Standard Deviations from the mean are higher than 2.5 (2% of the cases).
***Замените единичные значения, если стандартные отклонения от среднего значения выше, чем 2,5 (в 2% случаев).
***Remember this will not affect the consumption aggregate but the Pashee price index.
***Запомните, что это не повлияет на совокупное потребление, а только на индекс цен Пааше.

```

Compute uv = uv_0 .
IF (uv_sd_mean > 2.5) uv=uv_0_mean.
EXECUTE.

```

***For the cases without uv, use the selected UV = uv_0_mean .
***В тех случаях, где отсутствует единичная стоимость, используйте выборочную единичную стоимость =
ес_0_среднее значение.

IF (MISSING(uv)) uv=uv_0_mean.
EXECUTE.

SAVE OUTFILE='C:\1 Tajikistan\Analysis\borrar12.sav'
/ keep = year quarter hhid region urban hhsiz year_q y_q_u_r nomer p001 p002 p003
p004 code kod_str p402 p403 only1 p201 p202 p203 p204 p205 p206 p207 p208 p209 p210 p211 p212 p213
p214 p215 p216 p217 cpi_original cpi f1_f2 code2 kcal food_q_buy food_exp uv_0 uv .
EXECUTE .

*****.

GET FILE='C:\1 Tajikistan\Analysis\borrar12.sav'.

***** STEP 1: ESTIMATE UNIT VALUE FOR FOOD

***** ШАГ 1: РАССЧИТАЙТЕ УДЕЛЬНЫЙ ПОКАЗАТЕЛЬ ПО ПРОДУКТАМ
ПИТАНИЯ *****

***** STEP 2: ESTIMATE FOOD CONSUMPTION VALUE

***** ШАГ 2: РАССЧИТАЙТЕ ВЕЛИЧИНУ ПОТРЕБЛЕНИЯ ПРОДУКТОВ
ПИТАНИЯ *****

GET FILE='C:\1 Tajikistan\Analysis\borrar12.sav'.

***If quantity purchase in Form1-s4 is the same as quantity purchase in Form2-s1, use the value reported in Form1-s4.

***Если покупка оптом, указанная в Форме 1-S4 аналогична покупке оптом, указанной в Форме 2-s1, то используйте значение, которое указано в Форме 1-S4.

***If there was not units and value reported in Form1-s4 and not in Form2-s1, use the value reported in Form1-s4.

***Если в Форме 1-S4 были указаны количество и стоимость, а не в Форме 2-s1, то используйте значение, указанное в Форме 1-S4.

IF (f1_f2 = 1 or f1_f2 = 2) food=p403 / cpi.

VARIABLE LABELS food 'Value of food consumed for each line reported (cpi deflated)'.
EXECUTE.

***If the source was other than purchase, use the quantities reported in Form2-s1 by the unit value.

***Если источник был отличен от покупки, то используйте величины, указанные в Форме 2-s1 по единичной стоимости.

IF (f1_f2 = 3 or f1_f2 = 4) food=p209 * uv.

EXECUTE.

***258,912 lines, allwith value of food consumed.

***258,912 строки, все со значением потребленных продуктов питания.

***Estimate outliers in value of food consumed similar to the Unit Value process to detect outliers.

***Рассчитайте выпадающие значения по стоимости потребляемых продуктов питания, которые схожи с

процессом установления единичной
*** стоимости для определения выпадающих значений.

```
COMPUTE food_pc=food / hhsz.
EXECUTE.
```

```
SORT CASES BY y_q_u_r code2.
AGGREGATE
  /OUTFILE=* MODE=ADDVARIABLES
  /PRESORTED
  /BREAK=y_q_u_r code2
  /food_pc_mean0 'By Year, quarter, urban/rural, Region and code2'=MEAN(food_pc)
  /food_pc_sd0=SD(food_pc)
  /n_0=N.
```

```
SORT CASES BY year_q region code2.
AGGREGATE
  /OUTFILE=* MODE=ADDVARIABLES OVERWRITEVARS=YES
  /PRESORTED
  /BREAK=year_q region code2
  /food_pc_mean1 'By Year, ur\ban'=MEAN(food_pc)
  /food_pc_sd1=SD(food_pc)
  /n_1=N.
```

```
SORT CASES BY year_q urban code2.
AGGREGATE
  /OUTFILE=* MODE=ADDVARIABLES
  /PRESORTED
  /BREAK=year_q urban code2
  /food_pc_mean2 'By Year, quarter, urban/rural and code2'=MEAN(food_pc)
  /food_pc_sd2=SD(food_pc)
  /n_2=N.
```

```
SORT CASES BY year_q code2.
AGGREGATE
  /OUTFILE=* MODE=ADDVARIABLES
  /PRESORTED
  /BREAK=year_q code2
  /food_pc_mean3 'By Year, quarter and code2'=MEAN(food_pc)
  /food_pc_sd3=SD(food_pc)
  /n_3=N.
```

```
IF (n_0 >= 26 ) food_pc_mean=food_pc_mean0.
IF (n_1 >= 26 & MISSING(food_pc_mean)) food_pc_mean=food_pc_mean1.
IF (n_2 >= 26 & MISSING(food_pc_mean)) food_pc_mean=food_pc_mean2.
IF ( MISSING(food_pc_mean)) food_pc_mean=food_pc_mean3.
EXECUTE.
```

```
IF (n_0 >= 26 ) food_pc_sd=food_pc_sd0.
IF (n_1 >= 26 & MISSING(food_pc_sd)) food_pc_sd=food_pc_sd1.
IF (n_2 >= 26 & MISSING(food_pc_sd)) food_pc_sd=food_pc_sd2.
```

```
IF (MISSING(food_pc_sd)) food_pc_sd=food_pc_sd3.
EXECUTE.
```

```
IF (n_0 >= 26) n=n_0.
IF (n_1 >= 26 & MISSING(n)) n=n_1.
IF (n_2 >= 26 & MISSING(n)) n=n_2.
IF (MISSING(n)) n=n_3.
EXECUTE.
```

```
***Estimate Standard deviations from the mean
***Расчитайте стандартные отклонения от среднего значения
```

```
COMPUTE food_pc_SD_mean=RND(ABS((food_pc - food_pc_mean)/food_pc_sd),0.1).
EXECUTE.
```

```
***Identify values estimated in new variable food_e
***Определите значения, рассчитанные в новой переменной "food_e"
```

```
Compute food_e = 0 .
IF (food_pc_SD_mean > 6) food_e=food_pc_mean * hhsz.
VARIABLE LABELS food_e 'Estimated food value'.
EXECUTE.
```

```
IF (food_pc_SD_mean > 6) food=food_pc_mean * hhsz.
Execute .
```

```
***Estimated: 718 cases out of 258,912 = 0.2773% or 1 out of each 360 products reported.
***Расчитано: 718 случаев 258,912 = 0.2773% или 1 из каждых 360 продуктов, о которых сообщалось.
```

```
***Round up values and format .
***Округлите величины и формат.
```

```
COMPUTE food_e=RND(food_e).
COMPUTE food=RND(food).
EXECUTE.
```

```
Format food food_e (Comma8.0) .
```

```
SORT CASES BY year(A) quarter(A) hhid(A) code(A).
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\food1.sav'
/keep = year quarter hhid region urban hhsz year_q y_q_u_r nomer p001 p002 p003
p004 code kod_str p402 p403 only1 p201 p202 p203 p204 p205 p206 p207 p208 p209 p210 p211 p212 p213
p214 p215 p216 p217 cpi_original cpi f1_f2 code2 kcal food_q_buy food_exp uv_0 uv food food_e .
```

```
*****
GET FILE='C:\1 Tajikistan\Analysis\food1.sav'.
```

```
***** STEP 2: ESTIMATE FOOD CONSUMPTION VALUE
```

```
*****
```

```
***** ШАГ 2: РАССЧИТАЙТЕ ВЕЛИЧИНУ ПОТРЕБЛЕНИЯ ПРОДУКТОВ
```

ПИТАНИЯ *****

erase file 'C:\1 Tajikistan\Analysis\borrar10.sav'.
erase file 'C:\1 Tajikistan\Analysis\borrar11.sav'.
erase file 'C:\1 Tajikistan\Analysis\borrar12.sav'.

*variable level Variable1 Variable2 (scale) (nominal) (ordinal) .
*erase file 'FILENAME'.

**FILE 2/ФАЙЛ 2 – NON-FOOD AND TOTAL
CONSUMPTION/НЕПРОДОВОЛЬСТВЕННОЕ И ОБЩЕЕ ПОТРЕБЛЕНИЕ**

***Final changes made on September 11 by including most of durable and excluding only:
* 605 TV with a color image, 624 refrigerator, freezer, 625 Washing Machine, 630 Car, 635 Sewing Machine
* 640 sofa, couch, 641 A bed, a sofa bed, 646 Necklace dining room, bedroom closet, etc., 647 Kitchen set .

***** **MASTER NON-FOOD FILE** *****
***** **ГЛАВНЫЙ НЕПРОДОВОЛЬСТВЕННЫЙ ФАЙЛ** *****

***put together files from: Form 1, sections 5, 6, 7 and 8 in one single file.
***Соберите вместе файлы из: Формы 1, разделов 5, 6, 7 и 8 в один единственный файл.

***** **NON-FOOD UNIT VALUES** *****
***** **НЕПРОДОВОЛЬСТВЕННЫЕ ЕДИНИЧНЫЕ СТОИМОСТИ** *****

***Estimate unit values for non food and identify and replace outliers.
***Определите единичную стоимость для непродовольственных товаров, определите и замените выпадающие значения.

***** **NON-FOOD VALUES** *****
***** **НЕПРОДОВОЛЬСТВЕННЫЕ ВЕЛИЧИНЫ** *****

***Create the total non-food consumption, identify and replace outliers.
***Укажите общий объем потребления непродовольственных товаров, определите и замените выпадающие значения.

***** **TOTAL CONSUMPTION FOOD + NON-FOOD** *****

***** **ОБЩИЙ ОБЪЕМ ПОТРЕБЛЕНИЯ ПРОДОВОЛЬСТВЕННЫХ +
НЕПРОДОВОЛЬСТВЕННЫХ ТОВАРОВ** *****

*Merge food and non-food .
*Объедините продовольственные и непродовольственные товары.

***** **MASTER NON-FOOD FILE** *****
***** **ГЛАВНЫЙ НЕПРОДОВОЛЬСТВЕННЫЙ ФАЙЛ** *****

- * Sections 5, 6, 7 and 8 in Form 1
- * Разделы 5, 6, 7 и 8 вФорме 1

GET FILE='C:\1 Tajikistan\Data\F1S05_clothes.sav'.

***Purchased, purchases for gifts and received as gifts (quantities and values) are common on the four sections.
Create a variable for it

***Приобретенные, покупки для подарков и полученные в качестве подарков (количество и стоимость),
характерны для четырех
***разделов. Создайте переменную для него

***create ID for the section number

***присвойте идентификацию для номера раздела

COMPUTE file=5.

EXECUTE.

***Create the common variables .

***Задайтеобщиепеременные.

****Totalpurchases

****Итогопокупок

COMPUTE purchased_q=p507.

VARIABLE LABELS purchased_q 'Quantity purchased'.

COMPUTE purchased_s=p508.

VARIABLE LABELS purchased_s 'Somoní purchased'.

***The next two variables are a subdivision of the previous value and to be subtracte from it.For Form1-s5
variable

*** p02 should identify if the line was a gift or not but the values in the file do not correspond to the codes in
questionnaire

***Следующие две переменные являются частью предыдущей величины, и должны быть вычтены из нее.
Для переменной из Формы 1-S5

*** p02 должна определять, являлся ли предмет подарком или нет, но значения в файле не соответствуют
кодам в вопроснике

COMPUTE purchased_gift_q= 0.

VARIABLE LABELS purchased_gift_q 'Quantity purchased for gifts'.

COMPUTE purchased_gift_s=0.

VARIABLE LABELS purchased_gift_s 'Somoní purchased for gifts'.

RECODE purchased_gift_q purchased_gift_s (0=SYSMIS).

EXECUTE.

***Received as gifts.

***Полученныевкачествеподарков.

COMPUTE received_q=p509.

VARIABLE LABELS received_q 'Quantity received as gifts'.

COMPUTE received_s=p509.

VARIABLE LABELS received_s 'Somoni received as gifts'.

***Add file F1, S6

***Добавьте файл F1, S6

ADD FILES /FILE=*

/FILE='C:\1 Tajikistan\Data\F1S06_furniture.sav'.

EXECUTE.

***add the correct section number

***добавьте правильный номер раздела

RECODE file (SYSMIS=6).

EXECUTE.

***Create the common variables for the new section .

***Задайте общие переменные для нового раздела.

IF (file = 6) purchased_q=p603.

IF (file = 6) purchased_s=p604.

IF (file = 6) purchased_gift_q=p605.

IF (file = 6) purchased_gift_s=p606.

IF (file = 6) received_q=p607.

IF (file = 6) received_s=p608.

EXECUTE.

***Add file F1, S7

***Добавьте файл F1, S7

ADD FILES /FILE=*

/FILE='C:\1 Tajikistan\Data\F1S07_personal.sav'.

EXECUTE.

***add the correct section number

***добавьте правильный номер раздела

RECODE file (SYSMIS=7).

EXECUTE.

***Create the common variables for the new section .

***Задайте общие переменные для нового раздела.

IF (file = 7) purchased_q=p703.

IF (file = 7) purchased_s=p704.

IF (file = 7) purchased_gift_q=p705.

IF (file = 7) purchased_gift_s=p706.

IF (file = 7) received_q=p707.

IF (file = 7) received_s=p708.

EXECUTE.

***Add file F1, S8

***Добавьте файл F1, S8

ADD FILES /FILE=*

/FILE='C:\1 Tajikistan\Data\F1S08_services.sav'.

EXECUTE.

***add the correct section number

***добавьте правильный номер раздела

RECODE file (SYSMIS=8).

EXECUTE.

***175,099 lines .

***175,099 строки.

***Create the common variables for the new section .

***Задайте общие переменные для нового раздела.

***(for section 8 only the total value is available)

***(для раздела 8 имеется только общая стоимость)

IF (file = 8) purchased_s=p805.

EXECUTE.

***A few items do not have unis, but others do.

***Некоторые предметы не имеют единиц измерения, а остальные имеют.

IF (file = 8) purchased_q=p804.

Execute .

***While there is no information of services purchased for gifts or received as gifts, it is assumed they are 0.

***До тех пор, пока нет никакой информации об услугах, оплаченных в виде подарков или полученных в качестве подарков, будем предполагать, что они равны 0.

IF (file = 8) purchased_gift_q= 0 .

IF (file = 8) purchased_gift_s= 0 .

IF (file = 8) received_q= 0 .

IF (file = 8) received_s= 0 .

EXECUTE.

***The only missing values correspond to the purchases to be used as gifts in Form1-s5 .

***Единственные недостающие значения соответствуют покупкам, которые будут использоваться в качестве подарков в Форме 1-S5.

***Until we solve this problem we will assume the value is 0.

***Пока мы не решим эту проблему, мы будем считать, что это значение равно 0.

DO IF (file = 5).

```
RECODE purchased_gift_q purchased_gift_s (SYSMIS=0).
END IF.
EXECUTE.
```

```
***Add the temporal CPI information .
***Добавьте временную информацию об ИПЦ .
```

```
SORT CASES BY year(A) quarter(A).
```

```
MATCH FILES /FILE=*
/TABLE='C:\1 Tajikistan\Data\cpi.sav'
/BY Year quarter.
EXECUTE.
```

```
*List of excluded codes and reasons:
```

```
*Список исключенных кодов и причин:
```

- * 590 590 Total (CA) in section 5 (Total)
- * 602 602 Telemagnitoly (Durable with 0 Frequency)
- * 603 603 Television and Radio (Durable with 0 Frequency)
- * 604 604 TV with black and white image (Durable with 0 Frequency)
- * 605 605 TV with a color image (Durable)
- * 615 615 Filming apparatus (Durable with 0 Frequency)
- * 624 624 refrigerator, freezer (Durable)
- * 625 625 Washing Machine (Durable)
- * 630 630 Car (Durable)
- * 631 631 The motorcycle, motor scooter, moped (Durable with 0 Frequency)
- * 635 635 Sewing Machine (Durable)
- * 636 636 Knitting Machine ((Durable with 0 Frequency)
- * 640 640 sofa, couch, couch (Durable)
- * 641 641 A bed, a sofa bed (Durable)
- * 646 646 Necklace dining room, bedroom closet, etc. (Durable)
- * 647 647 Kitchen set (Durable)
- * 690 690 Total (CA) in section 6 (Total)
- * 711 711 Jewels of gold and silver (Durable)
- * 718 718 Building Materials (Production)
- * 719 719 logs, cub (Production)
- * 721 721 Glass containers (Production)
- * 722 722 Flowers, Trees (Production)
- * 723 723 The agricultural and fishing implements (Production)
- * 724 724 Chemical fertilizers and plant protection products (Production)
- * 725 725 Medicines for animals (Production)
- * 726 726 Seeds, seedlings (Production)
- * 727 727 Other non-food products (Production)
- * 728 728 Firewood cutting, cubic meters. (Production)
- * 730 730 brushwood, cubic meters. (Production)
- * 731 731 Coal, lignite, coal briquette, quintals (Production)
- * 732 732 Kerosene, (Production)
- * 734 734 dung, quintals (Production)
- * 735 735 Corn budyle, stems, bolls of cotton, cane, quintals (Production)
- * 736 736 Other fuels in the amount of TJS (Production)

- * 739 739 Sugar, kg (Production)
- * 740 740 Fodder, kg (Production)
- * 741 741 Oil-cake, kg (Production)
- * 742 742 The grain kg (Production)
- * 743 743 Bran, kg (Production)
- * 744 744 Hay all, quintals (Production)
- * 745 745 The straw and chaff ear, quintals (Production)
- * 790 790 Total (CA) in section 7 (Total)
- * 804 801 Payment for housing and Utility Services and p802=1(dwelling space); and p802=6 (reparis or constructions to houses)
- * 804 801 Оплата жилищно-коммунальных услуг и P802 = 1 (жилая площадь); и P802 = 6 (ремонт или строительство в домах)
- * 810 810 Production- services (Production)
- * 890 890 Total (CA) in section 8 (Total)

***List of non excluded codes but open to interpretation:

***Список не исключенных кодов, но открытых для интерпретации:

- 518 <none>
- 601 Radio
- 607 Tape player
- 608 Cassette
- 609 turntables
- 610 Stabilizer
- 611 tapes for the VCR and tape
- 612 The telephone
- 613 Other radios in the amount of TJS
- 614 camera
- 616 clocks, pocket
- 617 other Watches
- 618 Skiing, skating and other sports items
- 621 Toys
- 622 Other recreational goods
- 623 Musical Instruments
- 633 Spare parts for vehicles in the amount of TJS
- 634 Ceramic tableware, tea, cooking in the amount of TJS
- 637 Other household goods to the amount of TJS
- 649 Carpets and rugs in the amount of TJS
- 717 Tobacco, shag
- 720 Gasoline liter
- 804 Other household services and p802=7 (funerals)
- 809 Other personal services and p802=2 (health facilities)

***186,254 lines .

***186,254 строки.

*** Form1-s5

*** Форма 1-s5

FILTER OFF.

USE ALL.

SELECT IF(code ~= 590).

EXECUTE.

***178,445 lines .

***178,445 строки.

*** Form1-s6 (mostly are selected durable goods, see list above)

*** Форма 1-s6 (в основном выбираются товары длительного пользования, см. список выше)

FILTER OFF.

USE ALL.

SELECT IF (code ~= 602 and code ~= 603 and code ~= 604 and code ~= 605 and
code ~= 624 and code ~= 615 and code ~= 625 and code ~= 630 and code ~= 631 and
code ~= 635 and code ~= 636 and code ~= 640 and code ~= 641 and code ~= 646 and
code ~= 647 and code ~= 690).

EXECUTE.

***172,957 lines .

***172,957 строки.

*** Form1-s7 (codes 723 to 745 are for production)

*** Форма 1-s7 (codes 723 to 745 are for production)

FILTER OFF.

USE ALL.

SELECT IF (code ~= 711 and code ~= 718 and code ~= 719 and code ~= 721 and code ~= 722 and
(code < 723 OR code > 745) and code ~= 790).

EXECUTE.

***140,227 lines .

***140,227 строки.

*** Form1-s8

*** Форма 1-s8

FILTER OFF.

USE ALL.

SELECT IF ((code ~= 801 or P802 ~=1) and (code ~= 801 or P802 ~=6) and code ~= 810 and code ~=
890).

EXECUTE.

*** 126,894 cases

*** 126,894 случаев

SAVE OUTFILE='C:\1 Tajikistan\Analysis\non_food.sav'

/COMPRESSED.

MASTER NON-FOOD FILE
ГЛАВНЫЙ НЕПРОДОВольСТВЕННЫЙ ФАЙЛ

NON-FOOD UNIT VALUES

НЕПРОДОВОЛЬСТВЕННЫЕ ЕДИНИЧНЫЕ СТОИМОСТИ

GET FILE='C:\1 Tajikistan\Analysis\non_food.sav'.

***Estimate unit values (time deflated) for F1

***Определите единичную стоимость (с учетом дефляции времени) для F1

***Products without units:

***Продукты, не имеющие единиц измерения:

613 Other radios in the amount of TJS

619 The amount TJS Newspapers, books, magazines, student notebooks, paper and other

620 Stationery

621 Toys

622 Other recreational goods

633 Spare parts for vehicles in the amount of TJS

634 Ceramic tableware, tea, cooking in the amount of TJS

637 Other household goods to the amount of TJS

710 Dry goods, except jewelry of precious metals

712 curtain lace

713 cosmetic products

714 Drugs

715 medicines, sanitation and hygiene

716 Detergents

717 Tobacco, shag

*Products exclude on purpose:

*Продукты, намеренные исключенные:

518 <none>

535 Other Footwear

541 fabrics for clothing: Other

617 other Watches

618 Skiing, skating and other sports items

623 Musical Instruments

701 Cotton

702 Wool

703 Silk

705 Synthetic

710 Dry goods, except jewelry of precious metals

800's (all services)

***Products included on purpose

***Продукты, включенныенамеренно

code = 501 or code = 502 or code = 503 or code = 504 or code = 505 or code = 506 or code = 507 or

code = 508 or code = 509 or code = 510 or code = 511 or code = 512 or code = 513 or code = 514 or

code = 515 or code = 516 or code = 517 or code = 519 or code = 520 or code = 521 or code = 522 or

code = 523 or code = 524 or code = 525 or code = 526 or code = 527 or code = 528 or code = 529 or

code = 530 or code = 531 or code = 532 or code = 533 or code = 534 or code = 536 or code = 537 or

code = 538 or code = 539 or code = 540 or code = 601 or code = 607 or code = 608 or code = 609 or

code = 610 or code = 611 or code = 612 or code = 614 or code = 616 or code = 707 or code = 708 or

code = 709 or code = 720

- * Use first the purchase value/quantity,
- * Используйте сначала стоимость / объем покупки,

```
IF ((purchased_s > 0 and purchased_q > 0 ) and (code = 501 or code = 502 or code = 503 or
code = 504 or code = 505 or code = 506 or code = 507 or
code = 508 or code = 509 or code = 510 or code = 511 or code = 512 or code = 513 or code = 514 or
code = 515 or code = 516 or code = 517 or code = 519 or code = 520 or code = 521 or code = 522 or
code = 523 or code = 524 or code = 525 or code = 526 or code = 527 or code = 528 or code = 529 or
code = 530 or code = 531 or code = 532 or code = 533 or code = 534 or code = 536 or code = 537 or
code = 538 or code = 539 or code = 540 or code = 601 or code = 607 or code = 608 or code = 609 or
code = 610 or code = 611 or code = 612 or code = 614 or code = 616 or code = 707 or code = 708 or
code = 709 or code = 720)) uv_0= (purchased_s / purchased_q)/cpi .
EXECUTE.
```

- *** If there is no unit value then use the received as gift value/quantity.
- *** Если отсутствует единичная стоимость, то тогда используйте полученные в подарок стоимость / количество.

```
IF (( (received_s > 0 and received_q > 0 ) and (code = 501 or code = 502 or code = 503 or
code = 504 or code = 505 or code = 506 or code = 507 or
code = 508 or code = 509 or code = 510 or code = 511 or code = 512 or code = 513 or code = 514 or
code = 515 or code = 516 or code = 517 or code = 519 or code = 520 or code = 521 or code = 522 or
code = 523 or code = 524 or code = 525 or code = 526 or code = 527 or code = 528 or code = 529 or
code = 530 or code = 531 or code = 532 or code = 533 or code = 534 or code = 536 or code = 537 or
code = 538 or code = 539 or code = 540 or code = 601 or code = 607 or code = 608 or code = 609 or
code = 610 or code = 611 or code = 612 or code = 614 or code = 616 or code = 707 or code = 708 or
code = 709 or code = 720 ) ) and MISSING(uv_0)) uv_0= (received_s / received_q) / cpi .
EXECUTE.
```

- ***We estimate several means & standard deviations to avoid using values from very small number of observations.
- ***For this exercise we use 26 as the minimum number of observations and 10 for the entire country.
- ***Мы берем в расчет несколько средних значений и стандартных отклонений для того, чтобы избежать использования величин в результате очень небольшого количества наблюдений
- ***Для этого упражнения мы используем 26 как минимальное число наблюдений и 10 для всей страны.

```
SORT CASES BY y_q_u_r code.
AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES
/PRESORTED
/BREAK=y_q_u_r code
/uv_0_mean0 'By Year, quarter, urban/rural, Region and code'=MEAN(uv_0)
/uv_0_sd0=SD(uv_0)
/n_0=N.
```

```
SORT CASES BY year_q region code.
AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES OVERWRITEVARS=YES
/PRESORTED
/BREAK= year_q region code
/uv_0_mean1 'By Year, ur\ban'=MEAN(uv_0)
```

```
/uv_0_sd1=SD(uv_0)
/n_1=N.
```

```
SORT CASES BY year_q urban code.
```

```
AGGREGATE
```

```
/OUTFILE=* MODE=ADDVARIABLES
```

```
/PRESORTED
```

```
/BREAK=year_q urban code
```

```
/uv_0_mean2 'By Year, quarter, urban/rural and code'=MEAN(uv_0)
```

```
/uv_0_sd2=SD(uv_0)
```

```
/n_2=N.
```

```
SORT CASES BY year_q code.
```

```
AGGREGATE
```

```
/OUTFILE=* MODE=ADDVARIABLES
```

```
/PRESORTED
```

```
/BREAK=year_q code
```

```
/uv_0_mean3 'By Year, quarter and code'=MEAN(uv_0)
```

```
/uv_0_sd3=SD(uv_0)
```

```
/n_3=N.
```

```
IF (n_0 >= 26 ) uv_0_mean=uv_0_mean1.
IF (n_1 >= 26 & MISSING(uv_0_mean)) uv_0_mean=uv_0_mean1.
IF (n_2 >= 26 & MISSING(uv_0_mean)) uv_0_mean=uv_0_mean2.
IF ( MISSING(uv_0_mean)) uv_0_mean=uv_0_mean3.
EXECUTE.
```

```
IF (n_0 >= 26 ) uv_0_sd=uv_0_sd1.
IF (n_1 >= 26 & MISSING(uv_0_sd)) uv_0_sd=uv_0_sd1.
IF (n_2 >= 26 & MISSING(uv_0_sd)) uv_0_sd=uv_0_sd2.
IF ( MISSING(uv_0_sd)) uv_0_sd=uv_0_sd3.
EXECUTE.
```

```
IF (n_0 >= 26 ) n=n_0.
IF (n_1 >= 26 & MISSING(n)) n=n_1.
IF (n_2 >= 26 & MISSING(n)) n=n_2.
IF ( MISSING(n)) n=n_3.
EXECUTE.
```

```
DO IF (n_3 < 10).
RECODE uv_0 (ELSE=SYSMIS).
END IF.
EXECUTE.
```

```
***Estimate Standard deviations from the mean
***Определите стандартные отклонения от среднего значения
```

```
IF (uv_0_sd > 0) uv_sd_mean=RND(ABS((uv_0 - uv_0_mean)/uv_0_sd),0.1).
EXECUTE.
```

***Replace Unit values if Standard Deviations from the mean are higher than 2.99 (766/ 47,669 = 1.6% of the cases).
 ***Remember this will not affect the consumption aggregate but the Pashee price index.
 ***Замените единичные стоимости, если стандартные отклонения от среднего значения выше, чем 2,99 (766/47669 = 1,6% случаев).
 ***Запомните, что это не повлияет на совокупное потребление, а только на индекс цен Пааше.

Compute uv = uv_0 .
 IF (uv_sd_mean > 2.99) uv=uv_0_mean.
 EXECUTE.

***For the cases without uv, use the selected UV = uv_0_mean .
 ***В тех случаях, где отсутствует единичная стоимость, используйте выборочные значения
 *** единичной стоимости = единичная стоимость_0_среднее значение.

IF (MISSING(uv)) uv=uv_0_mean.
 VARIABLE LABELS uv 'Unit values (Inflation adjusted, Somoni per Kgr. or unit)'.
 EXECUTE.

SAVE OUTFILE='C:\1 Tajikistan\Analysis\temporal21.sav'
 /COMPRESSED.

*****.

GET FILE='C:\1 Tajikistan\Analysis\temporal21.sav'.

| | | |
|-------|---|-------|
| ***** | NON-FOOD UNIT VALUES | ***** |
| ***** | НЕПРОДОВОЛЬСТВЕННЫЕ ЕДИНИЧНЫЕ СТОИМОСТИ | |
| ***** | | |
| ***** | НЕПРОДОВОЛЬСТВЕННЫЕ ЕДИНИЧНЫЕ СТОИМОСТИ | |
| ***** | | |
| ***** | НЕПРОДОВОЛЬСТВЕННЫЕ ЕДИНИЧНЫЕ СТОИМОСТИ | |
| ***** | | |

GET FILE='C:\1 Tajikistan\Analysis\temporal21.sav'
 /keep = year quarter hhid region urban hhsz year_q y_q_u_r nomer p001 p002 p003
 p004 code kod_str p501 p502 p503 p504 p505 p506 p507 p508 p509 p510 p511 only1 file purchased_q
 purchased_s purchased_gift_q purchased_gift_s received_q received_s p601 p602 p603 p604 p605 p606
 p607 p608 p609 p701 p702 p703 p704 p705 p706 p707 p708 p709 p801 p802 p803 p804 p805 cpi_original
 cpi uv .

***Total non food household expenditure = (purchases minus gifts given plus gifts received) defled by /CPI .
 ***Общие расходы домохозяйства на непродовольственные товары = (покупки минус подаренные подарки
 и плюс полученные подарки)
 *** с учетом дефляции/ИПЦ .

COMPUTE non_food=(purchased_s - purchased_gift_s + received_s) / cpi.
 VARIABLE LABELS non_food 'Value of non-food consumed for each line reported (cpi deflated)'.
 EXECUTE.

***We estimate several means & standard deviations to avoid using values from very small number of

observations.

***Мы берем в расчет несколько средних значений и стандартных отклонений для того, чтобы избежать
*** использования величин в результате очень небольшого количества наблюдений

```
COMPUTE non_food_pc = non_food / hhsiz.  
EXECUTE .
```

```
SORT CASES BY y_q_u_r code.
```

```
AGGREGATE  
/OUTFILE=* MODE=ADDVARIABLES  
/PRESORTED  
/BREAK=y_q_u_r code  
/non_food_PC_mean0 'By Year, quarter, urban/rural, Region and code'=MEAN(non_food_PC)  
/non_food_PC_sd0=SD(non_food_PC)  
/n_0=N.
```

```
SORT CASES BY year_q region code.
```

```
AGGREGATE  
/OUTFILE=* MODE=ADDVARIABLES OVERWRITEVARS=YES  
/PRESORTED  
/BREAK= year_q region code  
/non_food_PC_mean1 'By Year, ur\ban'=MEAN(non_food_PC)  
/non_food_PC_sd1=SD(non_food_PC)  
/n_1=N.
```

```
SORT CASES BY year_q urban code.
```

```
AGGREGATE  
/OUTFILE=* MODE=ADDVARIABLES  
/PRESORTED  
/BREAK=year_q urban code  
/non_food_PC_mean2 'By Year, quarter, urban/rural and code'=MEAN(non_food_PC)  
/non_food_PC_sd2=SD(non_food_PC)  
/n_2=N.
```

```
SORT CASES BY year_q code.
```

```
AGGREGATE  
/OUTFILE=* MODE=ADDVARIABLES  
/PRESORTED  
/BREAK=year_q code  
/non_food_PC_mean3 'By Year, quarter and code'=MEAN(non_food_PC)  
/non_food_PC_sd3=SD(non_food_PC)  
/n_3=N.
```

***For this exercise we use 26 as the minimum number of observatrions and 10 for the enire country.

***Для этого упражнения мы используем 26 как минимальное число наблюдений и 10 для всей страны.

```
IF (n_0 >= 26 ) non_food_PC_mean=non_food_PC_mean1.  
IF (n_1 >= 26 & MISSING(non_food_PC_mean)) non_food_PC_mean=non_food_PC_mean1.  
IF (n_2 >= 26 & MISSING(non_food_PC_mean)) non_food_PC_mean=non_food_PC_mean2.  
IF ( MISSING(non_food_PC_mean)) non_food_PC_mean=non_food_PC_mean3.
```

EXECUTE.

```
IF (n_0 >= 26 ) non_food_PC_sd=non_food_PC_sd1.
IF (n_1 >= 26 & MISSING(non_food_PC_sd)) non_food_PC_sd=non_food_PC_sd1.
IF (n_2 >= 26 & MISSING(non_food_PC_sd)) non_food_PC_sd=non_food_PC_sd2.
IF ( MISSING(non_food_PC_sd)) non_food_PC_sd=non_food_PC_sd3.
EXECUTE.
```

```
IF (n_0 >= 26 ) n=n_0.
IF (n_1 >= 26 & MISSING(n)) n=n_1.
IF (n_2 >= 26 & MISSING(n)) n=n_2.
IF ( MISSING(n)) n=n_3.
EXECUTE.
```

***Estimate Standard deviations from the mean
***Определите стандартные отклонения от среднего значения

```
IF (non_food_PC_sd > 0) non_food_PC_sd_mean=RND(ABS((non_food_PC -
non_food_PC_mean)/non_food_PC_sd),0.1).
EXECUTE.
```

***Replace Unit values if Standard Deviations from the mean are higher than 7.99 (150/ 124,018 = 0.121% OR
***Замените единичные стоимости, если стандартные отклонения от среднего значения выше, чем 7.99 (150/
124,018 = 0.121% ИЛИ
* 1 out of each 826 cases.
* 1 из каждых 826 случаев.

```
IF (non_food_PC_sd_mean > 7.99) non_food_e =non_food_PC_mean * hhsze.
IF (non_food_PC_sd_mean > 7.99) non_food =non_food_PC_mean * hhsze.
EXECUTE.
```

VARIABLE LABELS non_food_e 'Estimated value of non-food consumed for each line reported (cpi deflated)'.

SAVE OUTFILE='C:\1 Tajikistan\Analysis\non_food2.sav'

```
/keep = year quarter hhid region urban hhsze year_q y_q_u_r nomer p001 p002 p003
p004 code kod_str p501 p502 p503 p504 p505 p506 p507 p508 p509 p510 p511 only1 file purchased_q
purchased_s purchased_gift_q purchased_gift_s received_q received_s p601 p602 p603 p604 p605 p606
p607 p608 p609 p701 p702 p703 p704 p705 p706 p707 p708 p709 p801 p802 p803 p804 p805 cpi_original
cpi uv non_food non_food_e .
```

*****.

GET FILE='C:\1 Tajikistan\Analysis\non_food2.sav' .

*****.

GET FILE='C:\1 Tajikistan\Analysis\non_food2.sav'

```
/keep = year quarter hhid region urban hhsze year_q y_q_u_r nomer p001 p002 p003
p004 code file purchased_q purchased_s purchased_gift_q purchased_gift_s received_q received_s
cpi_original cpi uv non_food non_food_e .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\non_food3.sav'  
/COMPRESSED.
```

```
*****.
```

```
GET FILE='C:\1 Tajikistan\Analysis\non_food3.sav'.
```

```
*****
```

```
NON-FOOD VALUES
```

```
*****
```

```
*****
```

```
НЕПРОДОВОЛЬСТВЕННЫЕ ВЕЛИЧИНЫ
```

```
*****
```

```
*****
```

```
TOTAL CONSUMPTION FOOD + NON-FOOD
```

```
*****
```

```
***** ОБЩИЙ ОБЪЕМ ПОТРЕБЛЕНИЯ ПРОДОВОЛЬСТВЕННЫХ +  
НЕПРОДОВОЛЬСТВЕННЫХ ТОВАРОВ ****
```

```
GET FILE='C:\1 Tajikistan\Analysis\food1.sav'
```

```
/keep = year quarter hhid region urban hhsizе year_q y_q_u_r nomer p001 p002 p003  
p004 code cpi_original cpi f1_f2 code2 kcal food_q_buy food_exp uv food food_e .
```

```
ADD FILES /FILE=*
```

```
/RENAME (code2 f1_f2=d0 d1)
```

```
/FILE='C:\1 Tajikistan\Analysis\non_food3.sav'
```

```
/RENAME (file purchased_gift_q purchased_gift_s purchased_q purchased_s received_q received_s=d2  
d3 d4 d5 d6 d7 d8)
```

```
/DROP=d0 d1 d2 d3 d4 d5 d6 d7 d8.
```

```
EXECUTE.
```

```
VARIABLE LABELS food_e 'Estimated value of food consumed for each line reported (cpi deflated)'.  
RECODE food food_e non_food non_food_e (SYSMIS=0).  
EXECUTE.
```

```
COMPUTE cons=food+ non_food.
```

```
VARIABLE LABELS cons 'Consumption for each line reported (cpi deflated)'.  
EXECUTE.
```

```
COMPUTE cons_e=food_e + non_food_e.
```

```
VARIABLE LABELS cons_e 'Estimated consumption for each line reported (cpi deflated)'.  
EXECUTE.
```

```
*382,930 lines
```

```
*382,930 строки
```

```
***Only cases with positive consumption.
```

```
***Только случаи с положительным потреблением.
```

```
FILTER OFF.
```

```
USE ALL.
```

```
SELECT IF (cons > 0).
```


GET FILE='C:\1 Tajikistan\Analysis\consumption1.sav'.

***385,701 lines

***385,701 строки

***We only can use lines with positive Unit Value

***Мы только можем использовать статьи с положительной единичной стоимостью

FILTER OFF.

USE ALL.

SELECT IF (uv > 0).

EXECUTE.

***299,398 lines

***299,398 строки

*Estimate the mean price (quarterly) for each code.

*Определите среднюю цену (ежеквартально) для каждого кода.

WEIGHT BY hhsz.

SORT CASES BY quarter code.

AGGREGATE

/OUTFILE=* MODE=ADDVARIABLES

/PRESORTED

/BREAK=quarter code

/uv_national 'Mean Unit value for each product (1 per product)'=MEAN(uv).

***Estimate the total consumption per household by quarter (by quarter because we are not 100% sure if the HHID
***correspond to the the same household in all quarters.

***Оцените общее потребление на одну семью по кварталу (по кварталу, потому что мы не уверены на
100%, что есть HHID

***соответствуют аналогичному домохозяйству во всех кварталах.

WEIGHT OFF.

SORT CASES BY hhid year_q hhsz.

AGGREGATE

/OUTFILE=* MODE=ADDVARIABLES

/PRESORTED

/BREAK=hhid year_q

/cons_sum "Total consumption by household by quarter"=SUM(cons).

** *Paasche price index : $P_p = [P_h * Q_h] / [P_r * Q_h]$

*** were P = price (or univ value), Q = quantity; h=for each household and r = reference or national

*** = { SUM [W_hk * (P_r / P_h)] } EXP (-1) k = each product, W = budget ration of product k over total

***consumption in the HH,

** *ИндексценПааше : $P_p = [P_h * Q_h] / [P_r * Q_h]$

*** где P = цена (или универсальная величина), Q = количество; h=для каждого домохозяйства

***и r = отношение или общенациональный показатель

```

*** = { SUM [W_hk * ( P_r / P_h) ] } EXP (-1) k = каждый продукт, W = budget ration of product k over total
бюджетное отношение
*** продукта к общим показателям потребления в домохозяйстве,

COMPUTE W_hk=cons / cons_sum.
VARIABLE LABELS W_hk 'Budget share of each consumption line over total HH consumption'.

COMPUTE P_r_P_h= uv_national / uv .
VARIABLE LABELS P_r_P_h 'National/quarter price over household price'.

COMPUTE paa_m1=W_hk * P_r_P_h.
VARIABLE LABELS paa_m1 'Paasche index to the minus 1'.
EXECUTE.

***Sum over all items or products for each household/quarter.
***Сложите все предметы или продукты для каждого домохозяйства / квартала.

AGGREGATE
/OUTFILE=*
/BREAK=year quarter hhid region urban hhsize year_q y_q_u_r p001 cpi
/sum_paa_m1 'Inverted Paasche'=SUM(paa_m1).

**Estimate the paasche index for each household.
**Оцените индекс Пааше для каждого домохозяйства.

COMPUTE paas_hh=sum_paa_m1 ** (-1).
VARIABLE LABELS paas_hh 'Paasche price index for each household'.
EXECUTE.

***Estimate the paasche for each Quarter, region, urban/rural division: 36 divisions or 9 per quarter
***5 regions with 4 regions having urban/rural and Dusahnbee only urban.

***Определите индекс Пааше для каждого квартала, региона, города / сельского подразделения: 36
подразделений или 9 на квартал
***5 регионов, при которых 4 региона имеют городские / сельские зоны и только Душанбе является
городской зоной.

WEIGHT BY hhsize.

AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES
/BREAK=y_q_u_r
/paas_36 'Paasche price index for each region, quarter and urban/rural (36 '+
'indexes)'=mean(paas_hh).

***Get the national average .
***Получите показатели в среднем по стране .

AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES
/BREAK=

```

```
/paas_1 'Paasche price index average for the entire country'=mean(paas_hh).
```

```
***normalize with the national average .
```

```
***приведите в соответствие со средними показателями по стране .
```

```
COMPUTE paasche=paas_36 / paas_1.
```

```
VARIABLE LABELS paasche "Paasche price index (normalized) for each region, quarter and "+  
"urban/rural (36 'indexes)".
```

```
EXECUTE.
```

```
DESCRIPTIVES VARIABLES=paasche
```

```
/STATISTICS=MEAN STDDEV MIN MAX.
```

```
SORT CASES BY year(A) quarter(A) hhid(A).
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\paasche1.sav'
```

```
/COMPRESSED.
```

```
***Remember, the Paasche index was created using UV already corrected by temporal price changes (quarterly  
CPI).
```

```
***Запомните, что индекс Пааше была задан при помощи единичной стоимости, которая уже была
```

```
***скорректирована с учетом временных изменений цен (квартальный ИПЦ).
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Analysis\paasche1.sav'.
```

```
Compute paasche2=paasche/cpi .
```

```
EXECUTE.
```

```
AGGREGATE
```

```
/OUTFILE=*
```

```
/BREAK= y_q_u_r year quarter region urban
```

```
/paas_1 'Paasche price index average for the entire country for values already deflated by quarter 2012-q3,q4 &  
2013-q1,q2'=mean(paas_1)
```

```
/paasche 'Paasche price index for each quarter, region and urban/rural for values already deflated by quarterly
```

```
CPI'=MEAN(paasche)
```

```
/paasche2 'Paasche price index for each quarter, region and urban/rural for values NON-deflated by quarterly CPI  
(nominal)'=MEAN(paasche2) .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\paasche2.sav'
```

```
/COMPRESSED.
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Analysis\paasche2.sav'.
```

```
*****
```

```
PAASCHE PRICE INDEX
```

```
*****
```

```
*****
```

```
ИНДЕКСЦЕНПААШЕ
```

```
*****
```

```
*****
```

```
FOOD POVERTY LINE
```

```
*****
```

ПРОДОВОЛЬСТВЕННАЯ ЧЕРТА БЕДНОСТИ

GET FILE='C:\1 Tajikistan\Analysis\consumption1.sav'.

***Add the Paasche price index .

***Добавьте индекс Пааше .

SORT CASES BY y_q_u_r(A).

MATCH FILES /FILE=*

/TABLE='C:\1 Tajikistan\Analysis\paasche2.sav'

/RENAME (quarter region urban year = d0 d1 d2 d3)

/BY y_q_u_r

/DROP= d0 d1 d2 d3.

EXECUTE.

**** 385,701 lines

**** 385,701 строки

***Use only items with caloric information.

***Учитывайте только продуктами с информацией о калориях.

FILTER OFF.

USE ALL.

SELECT IF (kcal >= 0).

EXECUTE.

**** 251,721 lines .

**** 251,721 строки .

***Estimate calories consumed .

***Оцените объем потребляемых калорий .

**Calorie content for eggs is already in units NOT in kilograms

***change tea (461) calories from kilograms to grams: 0.06.

IF (code = 461) kcal=0.06.

EXECUTE.

COMPUTE tot_cal=(food / uv) * kcal.

VARIABLE LABELS tot_cal 'Calories consumed for each item'.

EXECUTE.

***Remember the food, non food and total consumption were estimated before the Paasche index

***but deblated by the quarterly CPI .

***Запомните, что оценка потребления продуктов питания, непродовольственных товаров и

***общего потребления была произведена до установления индекса Пааше

***но с учетом дефляции в разрезе квартального ИПЦ .


```
COMPUTE food_cal = food / paasche .
VARIABLE LABELS food_cal "Expenditure on of food with calories (real Somoni/month/person) " .
EXECUTE.
```

```
COMPUTE cons_pc = (cons/hhsize) / paasche .
execute .
```

```
***For each quarter and household, SUM the total calories, the total food non-cpi adjusted
***Для каждого квартала и домохозяйства, сложите количество калорий, общее потребление
*** продуктов питания без корректировки согласно ИПЦ
```

```
AGGREGATE
/OUTFILE=*
/BREAK=year quarter hhid region urban hhsize year_q y_q_u_r cpi_original cpi paasche paasche2
/tot_cons"Consumption (real Somoni/month/person)" = SUM (cons_pc)
/tot_cal_sum "Total calories consumed HH/quarter"=SUM(tot_cal)
/food_cal_sum"Total Expenditure on of food with calories (real Somoni/month/person) - total CPI
"=SUM(food_cal) .
```

```
COMPUTE uc_cal=food_cal_sum / tot_cal_sum.
VARIABLE LABELS uc_cal 'Unit cost of 1 calories (Sonomi adjusted Paasche and CPI)'.
EXECUTE.
```

```
COMPUTE cal_2250=uc_cal * 2250 *365 / 12.
VARIABLE LABELS cal_2250 'HH montly cost of 2,250 calories (Sonomi adjusted Paasche and CPI)'.
EXECUTE.
```

```
***Compute population weight
***Вычислите вес населения
```

```
COMPUTE popw=hhsize / 4.
VARIABLE LABELS popw 'Population weight'.
EXECUTE.
```

```
***Create 50 groups (each with 2% of pupulation).
***Создайте 50 групп (каждая с 2% населения).
```

```
WEIGHT BY popw.
```

```
RANK VARIABLES=tot_cons (A)
/NTILES(50)
/PRINT=YES
/TIES=MEAN.
```

```
rename variable (Ntot_con = fiftiles) .
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\delete31.sav'
/COMPRESSED.
```

```
*****.
```

```

GET FILE='C:\1 Tajikistan\Analysis\delete31.sav'.

***Select 3-36% of population .
***Выберите 3-36% населения .

IF (fiftiles >= 2 and fiftiles <= 18) line_f=cal_2250.
EXECUTE.

***ESTIMATE THE MEDIAN VALUE FROM THE REFERENCE GROUP
***ОПРЕДЕЛИТЕ МЕДИАННОЕ ЗНАЧЕНИЕ НА ОСНОВЕ КОНТРОЛЬНОЙ ГРУППЫ

AGGREGATE
/OUTFILE=*
/BREAK=
/line_food 'Food poverty line (PC/month/CPI & Paasche deflated)'=MEDIAN(line_f) .

COMPUTE ONLY1 = 1.
EXECUTE .

SAVE OUTFILE='C:\1 Tajikistan\Analysis\line_food.sav'
/COMPRESSED.

*****.

GET FILE='C:\1 Tajikistan\Analysis\line_food.sav'.

*****                                FOOD POVERTY LINE
*****                                ПРОДОВОЛЬСТВЕННАЯ ЧЕРТА БЕДНОСТИ
*****

*****                                NON-FOOD POVERTY LINE
*****                                НЕПРОДОВОЛЬСТВЕННАЯ ЧЕРТА БЕДНОСТИ
*****

GET FILE='C:\1 Tajikistan\Analysis\consumption1.sav'.

***Add the Paasche price index .
***Добавьте индекс цен Пааше .

SORT CASES BY y_q_u_r(A).

MATCH FILES /FILE=*
/TABLE='C:\1 Tajikistan\Analysis\paasche2.sav'
/RENAME (quarter region urban year = d0 d1 d2 d3)
/BY y_q_u_r
/DROP= d0 d1 d2 d3.
EXECUTE.

```

***REPORTED VALUES WERE IN CENTS .

***ПОЛУЧЕННЫЕ ЗНАЧЕНИЯ БЫЛИ УКАЗАНЫ В ЦЕНТАХ.

```
compute food = RND ( (food/100) , 0.01) .
compute non_food = RND ((non_food/100) , 0.01) .
compute cons = RND ( (cons/100) , 0.01) .
EXECUTE .
```

***Remember the food, non food and total consumption were estimated before the Paasche index and therefore
***but deflated by the quarterly CPI .

***Запомните, что оценка потребления продуктов питания, непродовольственных товаров и общего
***потребления была произведена до установления индекса Пааше и, таким образом,
***но с учетом дефляции в разрезе квартального ИПЦ .

***Estimate total per capita consumption deflated by paasche .
***Оцените суммарное потребление на душу населения с учетом дефляции индекса Пааше

```
COMPUTE pc_exp_food = ( food / hhsize ) / paasche .
variable label pc_exp_food "Per capita food expenditure (real Somoni/month/person) - total CPI" .
```

```
COMPUTE pc_exp_non_food = ( non_food / hhsize ) / paasche .
variable label pc_exp_non_food "Per capita non-food expenditure (real Somoni/month/person) - total CPI" .
```

```
COMPUTE pc_exp_total = ( cons / hhsize ) / paasche .
variable label pc_exp_total "per capita expenditure (real Somoni/month/person) - total CPI" .
```

***Compute population weight .

***Вычислите вес населения .

```
COMPUTE popw=hhsize/4.
EXECUTE.
```

AGGREGATE

/OUTFILE=*

/BREAK=year quarter hhid region urban hhsize year_q y_q_u_r cpi_original cpi paasche paasche2 popw

/food1 "Food consumption per HH nominal CPI deflated"=SUM(food)

/food1_e "Estimated food consumption per HH nominal CPI deflated"=SUM(food_e)

/non_food1 "Non-food consumption per HH nominal CPI deflated"=SUM(non_food)

/non_food1_e "Estimated non-food consumption per HH nominal CPI deflated"=SUM(non_food_e)

/cons1 "Total consumption per HH nominal CPI deflated"=SUM(cons)

/cons1_e "Estimated total consumption per HH nominal CPI deflated" =SUM(cons_e)

/food "Food consumption (PC/month/CPI & Paasche deflated)" =SUM(pc_exp_food)

/non_food "Non-food consumption (PC/month/CPI & Paasche deflated)"=SUM(pc_exp_non_food)

/consump "Total consumption (PC/month/CPI & Paasche deflated)"=SUM(pc_exp_total).

COMPUTE ONLY1 = 1.

EXECUTE .

MATCH FILES /FILE=*

/TABLE='C:\1 Tajikistan\Analysis\line_food.sav'

```
/BY ONLY1.  
EXECUTE.
```

```
IF (((consump * 1.05) > line_food) & ((consump * 0.95) < line_food)) ref_non_food=1.  
IF (ref_non_food = 1) Eng=food / consump.  
EXECUTE.
```

```
IF (((food * 1.05) > line_food) & ((food * 0.95) < line_food)) ref_non_food2=1.  
IF (ref_non_food2 = 1) Eng2=food / consump.  
EXECUTE.
```

```
WEIGHT BY popw.
```

```
AGGREGATE  
/OUTFILE=* MODE=ADDVARIABLES  
/BREAK=  
/Eng_mean=MEAN(Eng)  
/Eng2_mean=MEAN(Eng2) .
```

```
COMPUTE line=line_food / Eng_mean.  
VARIABLE LABELS line 'Total poverty line (PC/month/CPI & Paasche deflated)'.
```

```
COMPUTE line2=line_food / Eng2_mean.  
VARIABLE LABELS line2 'Total poverty line2 Reference group food consumption close to food poverty line  
(PC/month/CPI & Paasche deflated)'.  
execute.
```

```
COMPUTE poor_food=0.  
IF (consump < line_food) poor_food=1.  
VARIABLE LABELS poor_food 'Extreme poor (food)'.  
EXECUTE.
```

```
COMPUTE poor_all=0.  
IF (consump < line) poor_all=1.  
VARIABLE LABELS poor_all 'All poor'.  
EXECUTE.
```

```
COMPUTE poor2_all=0.  
IF (consump < line2) poor2_all=1.  
VARIABLE LABELS poor2_all 'All poor group food consumption close to food poverty line'.  
EXECUTE.
```

```
WEIGHT BY popw.
```

```
Variable level poor_food poor_all poor2_all (scale) .
```

```
Variable level year_q y_q_u_r (nominal) .
```

```
Formats poor_food poor_all poor2_all (F5.3) .
```

variable labels cpi "CPI index" .

variable labels cpi_original "Original CPI index from FMI" .

Variable label popw "Population weight = HH size /4".

WEIGHT BY popw.

RANK VARIABLES=consump (A)
/NTILES(5)
/PRINT=YES
/TIES=MEAN.

rename variable (Nconsump= quintile) .

variable labels quintile "Quintile (5)" .

RANK VARIABLES=consump (A)
/NTILES(10)
/PRINT=YES
/TIES=MEAN.

rename variable (Nconsump= decile) .

variable labels decile "Decile (10)" .

SORT CASES BY year(A) quarter(A) hhid(A).

***To create the FGT formula and estimate: Headcount rate, Poverty gap Index and Square of the poverty gap index .

***FGT.

*** Equation: For the poor (or extreme poor): $[(Z-Y(i))/Z]^{(\text{alfa})} = F^{(\text{alfa})}$ with alfa values of 0, 1 and 2 .

***Poverty (all) .

IF (consump < line) f0=((line - consump) / line) **0 .
IF (consump < line) f1=((line - consump) / line) **1.
IF (consump < line) f2=((line - consump) / line) **2.
EXECUTE.

***Extreme poverty .

IF (consump < line_food) f0e=((line_food - consump) / line_food) **0 .
IF (consump < line_food) f1e=((line_food - consump) / line_food) **1.
IF (consump < line_food) f2e=((line_food - consump) / line_food) **2.
EXECUTE.

***Put 0's to all the missing values (non-poor) .

```
RECODE
  f0 f1 f2 f0e f1e f2e (SYSMIS=0) .
EXECUTE .
```

***the six new variables are scale (continuous variables) .

```
variable level f0 f1 f2 f0e f1e f2e (scale) .
```

***Indicate to have 3 decimal points .

```
format f0 f1 f2 f0e f1e f2e (F8.3) .
```

***Labels with the formula .

```
VARIABLE LABELS f0 '1 * (( Z - Y(i) ) / Z)^0   if: Z > Y(i)' .
VARIABLE LABELS f1 '1 * (( Z - Y(i) ) / Z)^1   if: Z > Y(i)' .
VARIABLE LABELS f2 '1 * (( Z - Y(i) ) / Z)^2   if: Z > Y(i)' .
VARIABLE LABELS f0e '1 * (( Ze - Y(i) ) / Ze)^0   if: Ze > Y(i)' .
VARIABLE LABELS f1e '1 * (( Ze - Y(i) ) / Ze)^1   if: Ze > Y(i)' .
VARIABLE LABELS f2e '1 * (( Ze - Y(i) ) / Ze)^2   if: Ze > Y(i)' .
```

***Labels with explanation .

```
variable labels f0 "% of Total Poor" .
variable labels f1 "Poverty Gap Index for Overall poverty" .
variable labels f2 "Squared Poverty Gap Index for Overall poverty" .
variable labels f0e "% of Extreme Poor" .
variable labels f1e "Poverty Gap Index for Extreme poverty" .
variable labels f2e "Squared Poverty Gap Index for Extreme poverty" .
```

WEIGHT OFF.

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\consumption 3 4 2011_1 2 2012.sav'
/ keep = year quarter hhid region urban hhsiz popw year_q y_q_u_r cpi_original cpi
paasche paasche2 food1 non_food1 cons1 food1_e non_food1_e cons1_e food non_food consump line_food
line poor_food poor_all f0 f1 f2 f0e f1e f2e quintile decile.
```

*****.

```
GET FILE='C:\1 Tajikistan\Analysis\consumption 3 4 2011_1 2 2012.sav'.
```


```
erase file 'C:\1 Tajikistan\Analysis\delete31.sav'.
```

***To estimate GINI .

```
GET FILE='C:\1 Tajikistan\Analysis\consumption 3 4 2011_1 2 2012.sav'.
```

***PROVIDE NAMES FOR 3 VARIABLES: 1-Consumption aggregate, 2-Population weight, 3-Groups for Gini

(if national = 0)

```
COMPUTE HH_VALUE = (consump) .  
COMPUTE PP_WEIGHT_H = (popw) .  
COMPUTE GROUP_BY = (0) .  
EXECUTE.
```

***include the syntax file GINI

```
INCLUDE FILE='C:\1 Tajikistan\Analysis\GINI.sps'.
```

***CREATE A VARIABLE TO IDENTIFY THE GROUPS

```
compute g_group = 0.  
execute .
```

```
value label g_group 0 "National".
```

***SAVE WITH A TEMPORARY NAME TO ADD ALL THE FILES AT THE END

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\delete41.sav'  
/COMPRESSED.
```

FILE 4/ФАЙЛ 4 – RESULTS AND REPORTS/РЕЗУЛЬТАТЫ И ОТЧЕТЫ

***To estimate GINI .

```
GET FILE='C:\1 Tajikistan\Analysis\consumption 3 4 2011_1 2 2012.sav'.
```

***PROVIDE NAMES FOR 3 VARIABLES: 1-Consumption aggregate, 2-Population weight, 3-Groups for Gini
(if national = 0)

```
COMPUTE HH_VALUE = (consump) .  
COMPUTE PP_WEIGHT_H = (popw) .  
COMPUTE GROUP_BY = (REGION) .  
EXECUTE.
```

***include the syntax file GINI

```
INCLUDE FILE='C:\1 Tajikistan\Analysis\GINI.sps'.
```

***CREATE A VARIABLE TO IDENTIFY THE GROUPS

```
RECODE GROUP_BY (3501=1) (3505=2) (3507=3) (3509=4) (3590=5) INTO g_group.  
EXECUTE.
```

```
value label g_group 0 "National" 1 "Dushanbe" 2 "Sogd" 3 "Khatlon" 4 "RRP" 5 "GBAO".
```

***SAVE WITH A TEMPORARY NAME TO ADD ALL THE FILES AT THE END

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\delete42.sav'  
/COMPRESSED.
```

```
*****
```

```
***To estimate GINI .
```

```
GET FILE='C:\1 Tajikistan\Analysis\consumption 3 4 2011_1 2 2012.sav'.
```

```
***PROVIDE NAMES FOR 3 VARIABLES: 1-Consumption aggregate, 2-Population weight, 3-Groups for Gini  
(if national = 0)
```

```
COMPUTE HH_VALUE = (consump) .  
COMPUTE PP_WEIGHT_H = (popw) .  
COMPUTE GROUP_BY = (URBAN) .  
EXECUTE.
```

```
***include the syntax file GINI
```

```
INCLUDE FILE='C:\1 Tajikistan\Analysis\GINI.sps'.
```

```
***CREATE A VARIABLE TO IDENTIFY THE GROUPS
```

```
RECODE GROUP_BY (0=6) (1=7) INTO g_group.  
EXECUTE.
```

```
value label g_group 0 "National" 1"Dushanbe" 2"Sogd" 3"Khatlon" 4"RRP" 5"GBAO" 6"Rural" 7"Urban".
```

```
***SAVE WITH A TEMPORARY NAME TO ADD ALL THE FILES AT THE END
```

```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\delete43.sav'  
/COMPRESSED.
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Analysis\delete41.sav'.
```

```
ADD FILES /FILE=*  
/FILE='C:\1 Tajikistan\Analysis\delete42.sav'.  
EXECUTE.
```

```
ADD FILES /FILE=*  
/RENAME (GROUP_BY=d0)  
/FILE='C:\1 Tajikistan\Analysis\delete43.sav'  
/RENAME (GROUP_BY=d1)  
/DROP=d0 d1.  
EXECUTE.
```

```
value label g_group 0 "National" 1"Dushanbe" 2"Sogd" 3"Khatlon" 4"RRP" 5"GBAO" 6"Rural" 7"Urban".
```



```
SAVE OUTFILE='C:\1 Tajikistan\Analysis\all_ginis.sav'
/COMPRESSED.
```

```
*****
*****.
```

```
erase file 'C:\1 Tajikistan\Analysis\delete41.sav'.
erase file 'C:\1 Tajikistan\Analysis\delete42.sav'.
erase file 'C:\1 Tajikistan\Analysis\delete43.sav'.
```

```
*****
*****.
```

```
GET FILE='C:\1 Tajikistan\Analysis\all_ginis.sav'.
```

```
* Custom Tables.
```

```
CTABLES
```

```
/VLABELS VARIABLES=gini g_group DISPLAY=DEFAULT
/TABLE gini [S][MEAN] BY g_group [C]
/CATEGORIES VARIABLES=g_group ORDER=A KEY=VALUE EMPTY=INCLUDE
/TITLES
TITLE='Tajikistan GINIs Q3,4 (2011) & 1,2 (2012). '
CAPTION='Durables EXCLUDED: 605-TV with a color image, 624-refrigerator, freezer, '+
'625-Washing Machine, 630-Car, 635-Sewing Machine, 640-sofa, couch, couch, 641-A bed, a sofa '+
'bed, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set . Also, with no cases '+
'reported: 602 Telemagnitoly, 603 Television and Radio, 604 TV with black and white image, '+
'615 Filming apparatus, 631 The motorcycle, motor scooter, moped, and 636 Knitting '+
'Machine' ".
```

```
*****
```

```
GET FILE='C:\1 Tajikistan\Analysis\consumption 3 4 2011_1 2 2012.sav'.
```

```
* Custom Tables.
```

```
CTABLES
```

```
/VLABELS VARIABLES=region urban year quarter paasche DISPLAY=DEFAULT
/TABLE region [C] > urban [C] BY year [C] > quarter [C] > paasche [S][MEAN]
/CATEGORIES VARIABLES=region urban ORDER=A KEY=VALUE EMPTY=INCLUDE
/CATEGORIES VARIABLES=year quarter ORDER=A KEY=VALUE EMPTY=EXCLUDE
/TITLES
TITLE='Normalized Paasche Spatial Price Index, Tajikistan 2012-2013'
CAPTION='Durables EXCLUDED: 605-TV with a color image, 624-refrigerator, freezer, '+
'625-Washing Machine, 630-Car, 635-Sewing Machine, 640-sofa, couch, couch, 641-A bed, a sofa '+
'bed, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set . Also, with no cases '+
'reported: 602 Telemagnitoly, 603 Television and Radio, 604 TV with black and white image, '+
'615 Filming apparatus, 631 The motorcycle, motor scooter, moped, and 636 Knitting Machine'.
```

```
WEIGHT BY popw.
```

```
* Custom Tables.
```

```
CTABLES
```

```

/VLABELS VARIABLES=region urban quintile consump food non_food DISPLAY=DEFAULT
/TABLE region + urban + quintile BY consump [MEAN] + food [MEAN] + non_food [MEAN]
/CATEGORIES VARIABLES=region urban ORDER=A KEY=VALUE EMPTY=INCLUDE
/CATEGORIES VARIABLES=quintile ORDER=A KEY=VALUE EMPTY=EXCLUDE TOTAL=YES
POSITION=AFTER

```

```

/TITLES
  TITLE='Consumption (Total, food and non food) by region, area and quintile, Tajikistan '+
'2012-2013'
  CAPTION='Durables EXCLUDED: 605-TV with a color image, 624-refrigerator, freezer, '+
'625-Washing Machine, 630-Car, 635-Sewing Machine, 640-sofa, couch, couch, 641-A bed, a sofa '+
'bed, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set . Also, with no cases '+
'reported: 602 Telemagnitoly, 603 Television and Radio, 604 TV with black and white image, '+
'615 Filming apparatus, 631 The motorcycle, motor scooter, moped, and 636 Knitting Machine'.

```

WEIGHT BY popw.

* Custom Tables.

CTABLES

```

/VLABELS VARIABLES=quintile decile region urban line_food line food non_food consump poor_food
  poor_all
  DISPLAY=DEFAULT
/TABLE quintile [C] + decile [C] + region [C] + urban [C] BY line_food [S][MEAN] + line [S][MEAN]
  + food [S][MEAN] + non_food [S][MEAN] + consump [S][MEAN] + poor_food [S][MEAN] + poor_all
[S][MEAN]

```

```

/CATEGORIES VARIABLES=quintile decile ORDER=A KEY=VALUE EMPTY=EXCLUDE
/CATEGORIES VARIABLES=region ORDER=A KEY=VALUE EMPTY=INCLUDE
/CATEGORIES VARIABLES=urban ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES
POSITION=AFTER

```

```

/TITLES
  TITLE='Poverty lines, consumption (food, non-food and total) and poverty rates by Quintiles, '+
'Deciles Region and Urban/rural, Tajikistan Q3-4 2011 and Q1-2 2012'
  CAPTION='Durables EXCLUDED: 605-TV with a color image, 624-refrigerator, freezer, '+
'625-Washing Machine, 630-Car, 635-Sewing Machine, 640-sofa, couch, couch, 641-A bed, a sofa '+
'bed, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set . Also, with no cases '+
'reported: 602 Telemagnitoly, 603 Television and Radio, 604 TV with black and white image, '+
'615 Filming apparatus, 631 The motorcycle, motor scooter, moped, and 636 Knitting Machine'.

```

WEIGHT BY popw.

* Custom Tables.

CTABLES

```

/VLABELS VARIABLES=region urban decile food non_food consump line_food line
  DISPLAY=DEFAULT
/TABLE region [C] + urban [C] + decile [C] + quintile [C] BY food [S][MEAN] + non_food [S][MEAN] +
  consump [S][MEAN] + line_food [S][MEAN] + line [S][MEAN]
/CATEGORIES VARIABLES=region urban ORDER=A KEY=VALUE EMPTY=INCLUDE
/CATEGORIES VARIABLES=quintile ORDER=A KEY=VALUE EMPTY=EXCLUDE TOTAL=YES
POSITION=AFTER

```

```

/TITLES
  TITLE='Food, non-food and total consumption aggregate & poverty lines, (PC/month/CPI & '+
'Paasche deflated) Tajikistan Q3, 4 (2011) & 1, 2 (2012)'
  CAPTION='Durables EXCLUDED: 605-TV with a color image, 624-refrigerator, freezer, '+
'625-Washing Machine, 630-Car, 635-Sewing Machine, 640-sofa, couch, couch, 641-A bed, a sofa '+

```

'bed, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set . Also, with no cases '+
'reported: 602 Telemagnitoly, 603 Television and Radio, 604 TV with black and white image, '+
'615 Filming apparatus, 631 The motorcycle, motor scooter, moped, and 636 Knitting '+
'Machine' ".

WEIGHT BY popw.

* Custom Tables.

CTABLES

/VLABELS VARIABLES=region urban f0 f1 f2 f0e f1e f2e

DISPLAY=DEFAULT

/TABLE region [C] + urban [C] BY f0 [S][MEAN] + f1 [S][MEAN] + f2 [S][MEAN] + f0e [S][MEAN] + f1e
[S][MEAN] + f2e [S][MEAN] + f0 [S][COLPCT.SUM PCT40.1] + f0e [S][COLPCT.SUM PCT40.1]

/CATEGORIES VARIABLES=region ORDER=A KEY=VALUE EMPTY=INCLUDE

/CATEGORIES VARIABLES=urban ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES

POSITION=AFTER

/TITLES

TITLE='FGT values & contribution to poverty, Tajikistan Q3, 4 (2011) & 1, 2 (2012)'

CAPTION='Durables EXCLUDED: 605-TV with a color image, 624-refrigerator, freezer, '+
'625-Washing Machine, 630-Car, 635-Sewing Machine, 640-sofa, couch, couch, 641-A bed, a sofa '+
'bed, 646-Necklace dining room, bedroom closet, etc. and 647-Kitchen set . Also, with no cases '+
'reported: 602 Telemagnitoly, 603 Television and Radio, 604 TV with black and white image, '+
'615 Filming apparatus, 631 The motorcycle, motor scooter, moped, and 636 Knitting '+
'Machine' ".

WEIGHT BY popw.