

Technical Manual

Technical Methodological Manual for the Computation of the Consumer Price Index (CPI) This manual was authored by John Foster Agyaho (Head Price Stastistics at the Ghana Statistical Service), Josephine Baako Amponsah (Research Assistant at University of Cape Coast) and Laurent Sebastiaan Michgel Smeets (ODI Fellow at the Ghana Statistical Service).

This manual was edited by Professor Samuel Kobina Annim (Government Statistician of Ghana).

Other contributors to this manual include Sophie Elfar (United Kingdom Office for National Statistics), William Godfred Cantah (University of Cape Coast), Statistics Denmark, and the International Monetary Fund (IMF). This is the 2020 version of the Ghana Statistical Service (GSS) Consumer Price Index (CPI) technical manual. This technical manual is a reference tool for anyone who wishes to understand how CPI and associated inflation statistics are calculated. It covers the concepts underpinning the index, the statistical methodology used, price data collection and validation, calculation of weights and publication and usage of the different indices.

Contents

	List of Abbreviations	5
	List of Figures	5
	List of tables	5
1	Introduction	6
1.1	Explanation of CPI.	6
1.2	Uses of CPI	7
1.3	History of the CPI in Ghana.	8
1.4	Cost of Living Index	8
1.5	Scope and Coverage of CPI	9
2	Classification of Product Groups	9
2.1	COICOP Classification	10
2.2	COICOP Coverage in Ghana	11
	2.2.1 Goods That are Included	11
	2.2.2 Goods That are Excluded	11
	2.2.3 Housing	12
3	Weights	12
3.1	Item Weights	12
	3.1.1 GLSS	17
4	Construction of Ghana Consumer Price Indices	18
4.1	Elementary Aggregates	18
	4.1.1 Reasons for using the Jevons Index	19
	4.1.2 Disadvantages Jevons Index	20
4.2	Higher-level Indices.	20
4.3	Numerical example	21
4.4	Contribution to Inflation	23
5	Selection of Outlets and Products	25
5.1	Selection of Markets	25
5.2	Selection of Outlets	26
5.3	Selection of Products	26

6	Data Collection	27
6.1	Timing	28
6.2	Seasonality	28
6.3	Inclusion Approach	28
_		
7	Data Validation.	29
8	Principles and Procedures.	29
8.1	Quantity Adjustment.	29
8.2	Quality Adjustments	29
8.3	New Products	30
8.4	Missing Data	30
8.5	Foreign Goods	30
8.6	Discounts, Taxes, and Subsidies	30
8.7	Rounding	31
_		_
9	CPI Disaggregation and Dissemination	31
9 9.1	CPI Disaggregation and Dissemination	31 31
9 9.1 9.2	CPI Disaggregation and Dissemination.	31 31 32
9 9.1 9.2 9.3	CPI Disaggregation and Dissemination Disaggregation by Region Disaggregation by COICOP Divisions Disaggregation by Rural vs. Urban	31 31 32 32
9 9.1 9.2 9.3 9.4	CPI Disaggregation and DisseminationDisaggregation by RegionDisaggregation by COICOP DivisionsDisaggregation by Rural vs. UrbanDisaggregation by Local vs. Imported	31 32 32 32
9 9.1 9.2 9.3 9.4	CPI Disaggregation and Dissemination	 31 32 32 32 32
9 9.1 9.2 9.3 9.4 10	CPI Disaggregation and Dissemination. Disaggregation by Region. Disaggregation by COICOP Divisions. Disaggregation by Rural vs. Urban. Disaggregation by Local vs. Imported. Software.	31 32 32 32 32 33
 9 9.1 9.2 9.3 9.4 10 11 	CPI Disaggregation and Dissemination Disaggregation by Region Disaggregation by COICOP Divisions Disaggregation by COICOP Divisions Disaggregation by Rural vs. Urban Disaggregation by Local vs. Imported Disaggregation by Local vs. Imported Disaggregation by Local vs. Imported Software Rebasing, Chain-linking and Back Cast	31 32 32 32 32 33 33
9 9.1 9.2 9.3 9.4 10 11.1	CPI Disaggregation and Dissemination. Disaggregation by Region. Disaggregation by COICOP Divisions. Disaggregation by Rural vs. Urban. Disaggregation by Local vs. Imported. Software. Rebasing, Chain-linking and Back Cast. Rebasing.	31 32 32 32 33 33 33
 9 9.1 9.2 9.3 9.4 10 11 11.1 11.2 	CPI Disaggregation and Dissemination Disaggregation by Region Disaggregation by COICOP Divisions Disaggregation by Rural vs. Urban Disaggregation by Local vs. Imported Software Rebasing, Chain-linking and Back Cast Back Cast	31 32 32 32 33 33 33 35
 9 9.1 9.2 9.3 9.4 10 11 11.2 12 	CPI Disaggregation and Dissemination Disaggregation by Region. Disaggregation by COICOP Divisions. Disaggregation by Rural vs. Urban Disaggregation by Local vs. Imported. Software. Rebasing, Chain-linking and Back Cast Rebasing. Back Cast Challenges	31 32 32 33 33 33 35 35
 9 9.1 9.2 9.3 9.4 10 11 11.2 12 	CPI Disaggregation and Dissemination Disaggregation by Region. Disaggregation by COICOP Divisions. Disaggregation by Rural vs. Urban Disaggregation by Local vs. Imported. Software. Rebasing, Chain-linking and Back Cast Rebasing. Back Cast Challenges	31 32 32 33 33 33 35 35

List of Abbreviations

BoG	Bank of Ghana
COICOP	Classification of Individual Consumption According to Purpose
COLI	Cost of Living Index
CPI	Consumer Price Index
GLSS7	Ghana Living Standards Survey Round 7
GLSS8	Ghana Living Standards Survey Round 8
GSS	Ghana Statistical Service
FAO	Food and Agriculture Organization of the United Nations

List of Figures

3.1	Visual representation of the 307 CPI Item weights	13
3.2	Visual representation of the COICOP classification system	14
3.3	Weights of COICOP Divisions per region.	15
3.4	Standardized COICOP Divisions weights per region	16
3.5	relative weights of Divisions per region	17
4.1	Lowe Index	20
4.2	Lowe Index for Current CPI in Ghana	21
4.3	Contributions to inflation August 2019 to April 2020	24
5.1	Map of locations 44 different markets, using the 10 old regions of Ghana	25
9.1	Example of disaggregation by begion using a chloropleth map (April 2020)	32
11.1	Back cast plot	35

List of Tables

1.1	Example of CPI conversion from January = 100 to year = 100	7
4.1	Numerical example inflation calculation 1/3	22
4.2	Numerical example inflation calculation 2/3	23
4.3	Numerical example inflation calculation 3/3	23
11.1	Example of CPI rebasing with a full year (2018) as reference period	34
A.1	Summary table of products in the CPI basket	38
A.3	Summary table regional weight for the Itemsl.	52
A.5	44 markets by Region	67

1 Introduction

1.1 Explanation of CPI

Everything purchased by households has a price. Over time, these prices change. The Consumer Price Index (CPI) statistics are designed to measure the extent of these changes. The CPI is a comprehensive measure of the proportionate changes in the prices of a fixed basket of goods and services that households consume, using an index number. An index number is a means of summarising, in a single number, the change which has taken place in a large range of data. Any index number has at least two fundamental properties:

- Since it measures change over time, there has to be a base period against which all subsequent periods are measured. The index value for this base time is usually set to 100. This base period provides the basis to compare rates of price changes over time. Index numbers below 100 mean that, compared to the reference period, the index went down, and for values above 100, the index went up in relative terms.
- As it is a ratio, it does not measure actual values, only changes in values. Thus, it has no unit of measurement.

This last point means that the CPI of one country cannot directly be compared to the CPI of another country. Only the changes in CPI between two points in time can be compared. Similarly, index numbers on their own do not reflect prices. For instance, if the index (with the same base period) for rice is 132.8 and the index for yam is 110.5, it does not necessarily mean that rice is more expensive than yam. It simply means that the price of rice has risen relatively more than the price of yam.

The CPI as presented by Ghana Statistical Service (GSS) is a fixed basket price index. This fixed basket contains many different goods (food, clothing, electricity, etc) and services (such as rent and university fees) that the average Ghanaian household consumes. As the prices of goods in this basket change, so does the price of the whole basket. As the basket contains only goods of unchanging or equivalent quantity and quality, the index reflects pure price movements.

In practice, no two consumers spend their money in the same way and everyone has their own basket of goods. This means that everyone has their own CPI and corresponding inflation rate. For example, someone who does not drink alcohol is less affected by the rise of beer prices; so an increase in the price of a bottle of beer, might not affect this person's inflation. GSS publishes average inflation, based on the basket of goods that is representative of all households in Ghana. Every month, GSS monitors how much it costs to buy this basket of goods and, using a system of weighting and aggregating, calculates a national price index for that month. The relative change in this price index between two time periods, for example, between January 2019 and January 2020, is the inflation (or deflation if the change is negative).

To get an index and not actual prices, a base period is set to 100. Subsequent periods are compared to this reference period. Instead of taking a single month as the reference period, which is the first month for which prices are collected (usually January and for this index, January 2018), the average over multiple periods to set a price reference period can be used.

1. First, a number of indices must be calculated, starting with 100 for the first period.

- 2. Second, the mean over these indices must be found.
- 3. Third, all indices must be divided with this mean.

The result of these steps creates a new index for which a longer period (for example, a full year), which can be averaged to have an index of 100. This procedure is further summarized in Table 1.1. During the latest CPI rebasing in 2019, GSS set the full year 2018 as the price reference period. This means that there is not a single month serving as a reference, but that the CPI of 2018 on average equals 100.

Because the prices of different goods do not necessarily change at the same rate, a price index can only reflect their average movement. GSS publishes year-to-year inflation indices, which means that the inflation for September is calculated as the relative change in CPI between September 2019 with the CPI of September 2018, for example:

Inflation September =
$$\frac{CPI_{\text{Sept 2019}} - CPI_{\text{Sept 2018}}}{CPI_{\text{Sept 2018}}} = \frac{108.6 - 100.9}{100.9} = 7.6\%$$
(1)

A more elaborate numerical example is presented in Section 4.3. As CPI measure changes in the cost of a representative basket of goods and services, not all individual goods in the basket are equally important in calculating the CPI and consumer inflation. GSS weighs together aggregated prices of different goods and services to more appropriately represent the expenditure's share within household budgets. For instance, as most people spend significantly more on rice than on carpets, a price rise for rice must have a greater effect on overall CPI than a similar-sized increase for carpets. More information on the weights can be found in Section 3.

Month	January = 100	Year = 100
January	100	$\frac{CPI_{Jan}}{CPI_{average year}} = \frac{100}{105.5} \cdot 100 = 94.8$
February	101	$\frac{101}{105.5} \cdot 100 = 95.7$
March	102	96.7
April	103	97.6
May	104	98.6
June	105	99.5
July	106	100.5
August	107	101.4
September	108	102.4
October	109	103.3
November	110	104.3
December	111	105.2
average	105.5	100.0

Table 1.1 Example of CPI conversion from January = 100 to year = 100.

1.2 Uses of CPI

GSS is the producer of the CPI and has many users of the CPI statistic. Some of the uses of the CPI include, but are not limited to, are the following:

- The CPI is the main indicator measuring inflation in the economy. Consequently, it is used to guarantee that macroeconomic policy is based on comprehensive and up-to-date price information. The Government of Ghana, Bank of Ghana (BoG), international organisations and businesses use CPI to gauge levels of inflation in the country. CPI is used as a macroeconomic indicator tool by the Government of Ghana and the BoG for inflation targeting, monitoring price stability and for deflating national accounts aggregates. For example, the BoG currently maintains a medium-term inflation target of 8 ±2 per cent.¹
- The CPI is regularly and widely reported on by the news media, and it is the standard measure of inflation used by most Ghanaians.
- In addition, the CPI informs the prices of goods and services delivered by the Government.
 Furthermore, the CPI is used to monitor and evaluate the Government's economic policy, to adjust the amount of some government benefits, and to assess individual building contracts.

1.3 History of the CPI in Ghana

The compilation of the CPI in Ghana started in 1957 for the Greater Accra Region, the capital city of the country. The index was rebased in 1963 with March 1963 as the reference period. The rest of the country was included in the index at this rebasing (See Section 11.1 on more information on rebasing). The second rebasing was referenced to January 1977, with the third undertaken 20 years later, in September 1997. The next rebasing, with 2002 as the reference year, was unique in that it was not indexed to a particular month within the year, but the averages for the entire year. This was followed by another rebasing with 2012 as the reference period. Most recently, the index was rebased in 2019, with base year of 2018 and weights based on the Ghana Living Standard Surveys 7 (GLSS7) from 2016/2017. More information on the GLSS7 can be found in Section 3.1.1.

1.4 Cost of Living Index

The CPI is not designed to be a Cost of Living Index (COLI). Both CPI and COLI measure the changes in prices of goods and services that are purchased by households. However, CPI measures the change in the price of a fixed basket of goods and services, whereas a COLI measures the change in the minimum expenditure needed to maintain a certain standard of living. The CPI and COLI compares different baskets needed for the same utility level. Unlike a CPI, COLI takes into account the substitutions consumers make when faced with relative price changes among goods and services, as well as across outlets and suppliers. The CPI does not measure the changes in the cost of living that result from significant life cycle progression, which is an objective of the COLI. For instance, the expenditure pattern of households comprising of younger individuals may differ from that of older households. Whereas the former may be spending more on housing, education and skill acquisition, the latter's expenditure may largely comprise of medical services. Thus, COLI takes into account expenditure patterns that improve welfare as one progresses in life. Changes in the demographic make-up of the entire population and expenditure patterns are only incorporated in the CPI every time the weights are updated.

Bank of Ghana. Monetary Policy Framework. URL: https://www.bog.gov.gh/monetary-policy/our-monetary-policy-framework.

1.5 Scope and Coverage of CPI

The scope of an index is all transactions that one would ideally want to measure and coverage all those transactions within the scope that are possible to identify and measure in practice. The CPI does not purport to measure the average movement of prices for all products bought and sold in Ghana. Rather, the scope is limited to the prices of goods and services purchased by households (consumers) and not businesses. This means that the scope is all the transactions by households living in Ghana and the coverage all of the transactions that can be identified and measured in practice. The coverage is determined by the expenditure categories for which weights could be compiled (Section 2.2).

GSS aims at approximating the 'domestic' definition of consumption. This means that all consumption within the geographical boundaries of Ghana should be included, regardless of whether the consumption was made by Ghanaian households or not. Expenditure by Ghanaians outside of Ghana is excluded. Additionally, the purchases of some households fall outside of the scope. These exceptions include soldiers on military bases, imprisoned persons and people in permanent care facilities. Foreign diplomats living in Ghana are also excluded from the scope. Expenditure by tourists in Ghana are included in the scope, but in practice are excluded from the index; thus the full definition of 'domestic' consumption is not met. Their consumption is not captured in the GLSS and can therefore not be included in the composition of the CPI basket.

2

Classification of Product Groups

To get a perfect CPI estimate, it would be necessary to count how much every household included in the coverage in Ghana, spends every month on different products and services. Unfortunately, this is impossible. So instead, GSS makes use of a sample of products that are 'representative' for Ghana. This sample of products constitutes the basket GSS uses to calculate CPI.

Considering that the CPI is a basket-based price index, decisions have to make on which products are put in the basket. This basket of products aims to capture all goods bought by households. Products in the CPI basket do not only include products that are for sale in shops and at markets, but also fees and services such as university fees, rent and insurance.

For both practical and statistical reasons, the overall CPI is not directly estimated from the prices of different products. Instead, products are ordered in a hierarchical system of Divisions, Groups, Classes, Subclasses and Items. CPIs are produced in stages, with indices derived at each stage weighted together to produce higher-level indices. To order products into these different categories, GSS uses the United Nations Classification of Individual Consumption According to Purpose (COICOP) 2018 manual.²⁾ This classification aims to be unambiguously mutually exclusive and exhaustive.

²⁾ Department of Economic and Social Affairs, Statistics Division. Classification of Individual Consumption According to Purpose (COICOP) 2018. ST/ESA/STAT/SER.M/99. United Nations, 2018. URL: https://unstats.un.org/unsd/ classifications/business-trade/desc/COICOP_english/COICOP_2018_-_pre-edited_white_cover_ version_-_2018-12-26.pdf.

2.1 COICOP Classification

The COICOP is a hierarchical classification system comprising of:

- Divisions (for example: 01; Food and Non-Alcoholic Beverages)
- Groups (for example: 01.1; Food)
- Classes (for example: 01.1.6; Fruits and Nuts)
- Subclasses (for example: 01.1.6.1; Dates, Figs and Tropical Fruits, Fresh)
- Items (for example: 01.1.6.1.1; Avocados, Fresh)

In the latest COICOP, released in 2018, there are in total 15 Divisions, 63 Groups, 186 Classes, and 338 Subclasses. The lowest level of six-digit classification, 'Items', is optional and not part of the latest COICOP manual. For Division 1 (Food and Non-Alcoholic Beverages), the Food and Agriculture Organization of the United Nations (FAO) developed an "Optional high detail structure for food products," which includes 269 six-digit codes to supplement the Subclass structure. For other Divisions, statistical offices develop their own Item-level classifications. The 15 Divisions distinguished in the COICOP are

- 1. Food and Non-Alcoholic Beverages
- 2. Alcoholic Beverages, Tobacco and Narcotics
- 3. Clothing and Footwear
- 4. Housing, Water, Electricity, Gas and Other Fuels
- 5. Furnishings, Household Equipment and Routine Household Maintenance
- 6. Health
- 7. Transport
- 8. Information and communication
- 9. Recreation, Sport and Culture
- 10. Education Services
- 11. Restaurants and Accommodation Services
- 12. Insurance and Financial Services
- 13. Personal Care, Social Protection and Miscellaneous Goods and Services
- 14. Individual Consumption Expenditure of Non-profit Institutions Serving Households (NPISHS)
- 15. Individual Consumption Expenditure of General Government

The COICOP system distinguishes between four different types of Subclasses and Items: Services (S), Non-durables (ND), Semi-durables (SD), and Durables (D). The difference between these types can be summarized as "Most classes and subclasses comprise either goods or services. Classes and Subclasses containing goods are denoted by 'ND', 'SD' or 'D' indicating non-durable, semi-durable or durable respectively. 'S' denotes classes or subclasses consisting of services. ...The distinction between non-durable and durable goods is based on whether the goods can be used only once, or repeatedly or continuously over a period of more than one year. Moreover, durables, such as motor cars, refrigerators, washing machines and television sets, have a relatively high purchasers' price. Semi-durable goods differ from durable goods in that their expected lifetime of use, though more than one year, is often significantly shorter and their purchase prices are substantially less."³

³⁾ Department of Economic and Social Affairs, Statistics Division, Classification of Individual Consumption According to Purpose (COICOP) 2018.

2.2 COICOP Coverage in Ghana

2.2.1 Goods That are Included

GSS uses 13 out of the 15 Divisions as distinguished by the COICOP manual. Division 14 and 15 are excluded because these are consumptions by non-profits and the Government and not by households. Based on the COICOP and consumption patterns in Ghana, GSS created 44 Groups, 98 Classes, 156 Subclasses, and 307 Item-level observations for which price indices are tracked. This does not mean that only 307 products prices are collected. As further explained in Section 4.1, the Items are elementary aggregates, consisting of many more price quotations from different Regions and levels of urbanicity. On average every month, 39,461 price quotations are collected.

GSS makes use of the FAO's "Optional high detail structure for food products", for the Food Items (COICOP Division 1). For the other Divisions, GSS developed its own Item-level classification. Table A.1 in the Appendix summarizes the Items and the corresponding COICOP codes. Figure 3.2 in Section 3 gives a presentation of the COICOP classification system as used by the GSS.

As explained in Section 2.2.2, most transactions between households and the Government are excluded. The one exception to this exclusion are the goods which have a direct user fee or cost of consumption associated with them. For example, government-owned utilities or corporations, such as electricity rates or postal services, are included in the CPI.

2.2.2 Goods That are Excluded

Not everything that households spend money on is included in the CPI statistics. As mentioned above, rent is included as an Item in the CPI basket, as well as the maintenance (both materials and labour services) and decoration of personal dwellings, but the purchase of a dwelling (house or apartment) is not. This is because the purchasing of dwellings is considered a fixed investment in capital rather than consumption. Similarly, buying stocks and bonds are considered investments rather than consumption; thus fall outside the scope of CPI.

Second-hand goods are also not included. It is assumed that households buy second-hand goods from other households, meaning that net expenditures (i.e. expenditures minus receipts) are zero. Consequently, there is no weight attached to purchases and sales from one household to another. The only exception to this is second-hand motorcars. They are excluded because they make up a considerable part of the consumption of motorcars and because motorcars are usually not sold directly from household to household, but instead via a car dealer.

Payments that do not involve any flows of goods or services in return for the direct payments are excluded from the CPI. This means that income tax and payments to social security are excluded. Taxes on products are included, see Section 8.6. Most goods and services financed through the public taxation system (e.g. public education and public health care) are considered transfers even though they are paid for through taxation, because a private household does not receive any specific good or service in exchange for the amount of taxes paid.

The main application of the CPI is the measurement of inflation. Therefore, the index is restricted to monetary expenditures only, especially because non-monetary expenditures do not generate any demand for money. Barter transactions between households are also excluded, as they are hard to consistently measure and translate into monetary value. Consumption goods and services received by employees as remuneration from employers are also excluded. An example of this would be end-of-year gifts of food to employees.

2.2.3 Housing

As further explained in Section 2.2.2 the buying of a house is not considered consumption, but a capital investment. Maintenance of dwellings, the materials consumers buy to build dwellings, and rent are included in the current CPI. GSS does not use "Imputed rentals for housing," for owner occupied-housing. An alternative measurement could estimate the amount households 'save' by owning a dwelling instead of renting one, and include this number in the CPI. However, this imputed or estimated rentals for owner-occupied housing are not within the scope of the current CPI, as they do not involve any monetary transaction and because estimating the monetary value of housing homeowners provide to themselves would be difficult to estimate. This is especially the case in rural areas, where comparable units for rent might be hard to find.

3 Weights

3.1 Item Weights

As the CPI measures changes in the cost of a representative basket of goods and services, this means not all individual goods in the basket are equally important in calculating the overall CPI and consumer inflation. At the lowest level, each elementary aggregate (Section 4.1) receives a weight equal to the ratio of total expenditure on that good or service to all expenditure in Ghana on goods and services within the scope of the CPI. GSS weights together aggregated prices of different goods and services so that each represents its appropriate share within household budgets. For instance, as most people spend far more on rice than on carpets, a price rise for rice must have a greater effect on overall CPI than a similar-sized increase for carpets.

The Items with the highest weights in Ghana in current CPI are Bus and Trotro Fares (07.3.2.1.2) and Cooked Rice (01.1.9.1.3). The Items with the lowest weights are Repairs of Tables and Chairs (05.1.2.0.1) and Cashew Nuts (01.1.6.8.2). Similarly to the fact that not all weights are the same, not all Divisions are equally sized (sums of Item weights within a Division). These discrepancies are visualised in Figure 3.1. "Food and Non-Alcoholic Beverages" is the largest Division and "Recreation, Sport and Culture" is the smallest. In total, all Food Items have a combined weight of 43.7% and the Non-food Items have a combined weight of 56.3% Table A.1, in the Appendix summarizes the Items and the corresponding weights.

Figure 3.1 Visual representation of the 307 CPI Item weights. The areas of rectangles are proportional to the size of different weights and the total equals to 100. There are clear differences in the size of both Division and Item weights.



COICOP Divisions (two-digit)



The 307 weights presented in Figure 3.1 and in Table A.1, are a simplification of the actual weighting procedure. There are not only weights at the Item-level, but also weights at the geographical regional level. Within regions, a further distinction is made between urban and rural prices. These regional stratum weights are used in the construction of weights for the elementary aggregates (Section 4.1). These weights represent the proportion of national average household expenditures by category of product in each region of Ghana. From this, the percentage of expenditure in each product category and region is calculated. This disaggregation makes it possible to not only publish national, but also regional, CPI estimates.

Items have different weights at the regional level, and within regions, at the urbanicity level (urban or rural). Every product that appears in at least one regional basket is included in the national basket. This means that within the 10 regions, every Item has a maximum of 20 different weights

(10 regions multiplied by 2 levels of urbanicity). However, in actuality, there are 4,316 different weights used, as not every Item is collected in every region at both levels of urbanicity. For example, prices for grapes are only collected in 3 regions (Western, Ashanti, and Brong Ahafo). The inclusion of an Item in a region depends on the regional consumption of that Item. The number of prices collected per Item also depends on multiple factors. This is explained further in Section 5.3.



Figure 3.2 Visual representation of the COICOP classification system and the different levels of aggregation.

Another way of visualizing the weights is to examine the weights per region and Division simultaneously, as done in Figure 3.3. This diagram shows clearly that not all regions use similar weights for the same goods or services. In regions where there are more households or richer households, there is greater consumption. To adjust for the differences in consumption patterns between regions, certain regions are assigned a higher weight in the national CPI calculation. For example, Greater Accra, where there are more households and relatively richer households than Volta Region, Greater Accra carries a greater weight in the CPI calculation than Volta Region. The sum of all regions is equal to 100% in the national CPI calculation.





Transport (07)

In addition, households in different regions have different consumption patterns and thus, goods and services are weighted differently between regions. Weights are based on regional consumption patterns, as recorded in the GLSS7 and are therefore not the same across all regions. Figure 3.4, shows the standardized version of Figure 3.3. In this standardized chart, the sum of each weight is equal to 100% for every region, instead of a 100% nationally. This illustrates the different distributions of Division weights per region. For example, Transport has a relatively large weight in Greater Accra, but a relatively low weight in the Upper West Region, since households spend more on average on Transport in Greater Accra than in Upper West Region. Similarly, the Division Alcoholic Beverages, Tobacco and Narcotics, has a relatively large weight in the Upper East Region, but a low weight in the Ashanti Region, due to the differences in consumption patterns.

In CPI terms, these different weights and the fact that not all Items are collected in every region, mean that different regional CPIs are based on different baskets of goods, since no region has an identical collection of Items as another. Regional CPIs are not based on a single national basket of goods, but on different baskets of goods representative for households in the different regions. This is import to consider when comparing the regional CPIs.



Figure 3.4 Standardized COICOP Divisions weights per region

Food and Non-Alcoholic Beverages (01)
Alcoholic Beverages, Tobacco and Narcotics (02)
Clothing and Footwear (03)
Housing, Water, Electricity, Gas and Other Fuels (04)
Furnishings, Household Equipment and Routine Household Maintenance (05)
Health (06)
Transport (07)

GSS regularly releases separate index numbers of the 13 different Divisions. It is also possible to express relative weights of Divisions per region, as Figure 3.5 shows. This Figure shows the relative standardized weights of the 13 Divisions, split by region. As Greater Accra and Ashanti are the two regions with most the consumption, they are also the two regions with the largest relative weights in the national CPI calculation. However, the relative shares of the regions are not the same for all Divisions. For example, the difference between 'Information and communication' and 'Insurance and Financial Services' for the Ashanti Region.





The Item weights are calculated based on GLSS7 from 2016/2017, a nationally representative household survey conducted by GSS. These weights are expressed in terms of relative expenditure shares of Items in the different regions and the two levels of urbanicity. Since consumption patterns change, new products are developed and the economy changes, weights must be updated frequently. As a rule, rebasing of the weights should be done at least five years intervals, in accordance with international best practice. Updating the weights ensures that the CPI provides the best possible measure of current price changes.

3.1.1 GLSS

The GLSS is a survey of Ghanaian and non-diplomatic households living in Ghana, aimed at mapping patterns of household consumption and expenditure, employment and living conditions in Ghana. For the latest round of this survey, GLSS7, around 15,000 households were surveyed from the, then, 10 regions. The survey was spread out over 1 year (2016-2017), to include all months and

seasons. Households were asked to track their consumption patterns on all goods and services using a diary for a period of 5 weeks. During this period, they were visited by an interviewer every 5 days, unless there was no literate person in the household who could keep a diary of expenditures. In these cases, visits occurred daily.⁴⁾ The eighth round of the GLSS is scheduled to be conducted in 2021/2022. The CPI weights are constructed from aggregate household expenditures as reported in the GLSS.

4

Construction of Ghana Consumer Price Indices

Calculation of CPI happens in two stages:

- 1. Using the raw price data, calculate the elementary aggregates.
- 2. Using weights, combine these elementary aggregates to higher-level indices.

4.1 Elementary Aggregates

Elementary aggregates are the primary building blocks to construct all indices at higher aggregation levels. Elementary aggregates are also the lowest-level classes to which a set of fixed-quantity basket weights is assigned. They contain relatively homogenous products. The intersections of the 307 Items and 10 Regional geographical classifications and the two levels of urbanicity constitute the elementary aggregates of the CPI, as explained in Section 3.1. Newspapers bought at urban markets in Greater Accra is one example of an elementary aggregate. This aggregate might include multiple products, such as the *The Ghanaian Times, Weekly Spectator* and all other brands of newspapers sold at urban markets in Greater Accra.

It is helpful to approach the calculation of elementary aggregates into two parts.

- 1. First, estimate the changes in prices of each individual product between two consecutive time periods. In the national CPI calculation, this includes about 39,500 products.
- 2. Second, combine the changes of prices of each product comprising of all the products within the same COICOP 6 classification within a region and with the same level of urbanicity to calculate the elementary aggregate.

To calculate the elementary aggregates, GSS uses the unweighted Jevons Index. The Jevons index is used for all elementary aggregates and is the geometric mean of price relatives. As an unweighted index, there are no weights assigned for each product. This means that, for example, *The Ghanaian Times, Weekly Spectator*, and all other newspapers sold at urban markets in Greater Accra are weighted equally. The Jevons Index can be expressed as:

⁴⁾ For more information on the latest GLSS, please visit: https://statsghana.gov.gh/gssmain/fileUpload/ pressrelease/GLSS7\%20MAIN\%20REPORT_FINAL.pdf.

$$T_{\text{Jevons}}^{0,t} = \frac{\sqrt[n]{\prod_{i=1}^{n} p_i^t}}{\sqrt[n]{\prod_{i=1}^{n} p_i^0}}$$
$$= \sqrt[n]{\prod_{i=1}^{n} \frac{p_i^t}{p_i^0}}$$

where, p_1^0 to p_n^0 are prices obtained at the reference period and p_1^t to p_n^t matching prices for the same goods (given that quality and quantity stay constant) in month t.

The 4,316 different elementary aggregates do not consist of an equal number of product price quotations. For example, Cashew nuts (01.1.6.8.2) only has 2 prices collected every month, while 672 different prices are collected every month for Imported rice (01.1.1.1.2).

GSS uses chained month-to-month price ratios instead of direct price ratios between two periods (for example base and current period) to calculate the indices. When using the Jevons index, both methods yield the same result (see Section 4.1.1).

4.1.1 Reasons for using the Jevons Index

Using the Jevons index to average price quotations into elementary aggregates has multiple advantages. The International Labour Organization's CPI manual chapters 1, 9, 16, and 20 discusses in greater detail why the Jevons index is the preferred unweighted index formula in most situations.⁵⁾ In summary, the Jevons index passes the time-reversal test, which a 'regular' arithmetic average does not. This means that if all the price data for the two periods are interchanged, then the resulting CPI is equal to the reciprocal of the CPI. So if prices from in March are equal to prices in January (with CPI equal to 100), but prices in February were higher, then the product of the price change going from period January to February, multiplied by the price change going from period February to March, should equal 100.

The Jevons index also allows for changes in the units of measurement test (commensurability test). This means that the CPI does not change if the quantity units in which the products are measured are changed (for example, if the prices of milk are expressed per litre rather than per pint).

A Jevons index is also transitive, meaning that the chained index (current CPI constantly calculated from the previous month and updated) between two periods is equal to the direct index between the same two periods.

The use of the geometric average means that the CPI provides a closer approximation to the COLI than would using the arithmetic mean. This is because there is likely to be a significant amount of substitution within an elementary aggregate, where consumers substitute towards relative cheaper alternatives of the same product within an elementary aggregate.

(2)

⁵⁾ International Labour Office. Consumer Price Index Manual: Theory and Practice. Geneva: International Monetary Fund, 2004. URL: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/ presentation/wcms_331153.pdf.

4.1.2 Disadvantages Jevons Index

The main disadvantage of the Jevons Index is the fact that it is sensitive to extreme falls in prices. In its most mathematical extreme, if a single p_i^t is equal to 0, then the whole elementary aggregate is equal to zero. Caution should be taken to ensure that unavailable prices are not entered as 0, and that missing data are carefully imputed. More on imputation in Section 8.4.

4.2 Higher-level Indices

After calculating the indices for the different elementary aggregates, these indices need to be combined into higher-level indices. The consumer price indices that GSS publishes are Lowe-type indices. This index is a fixed-basket, where the quantities (the goods in the basket) are taken at a different time point than the prices of those goods. Most commonly this happens before the base period. The Lowe Index is therefore called a Laspeyres-like Index. Both indices are calculated similarly; but to be a true Laspeyres index, the period that provides the expenditure weights must coincide with the reference period for the prices. This coinciding of expenditure weights must be based on some expenditure survey held prior to the rebasing of the CPI. The Lowe index can be expressed as:

$$I^{0,t} = 100 \cdot \left(\sum_{i}^{n} \frac{p_i^t}{p_i^0}\right) \cdot \left(\frac{p_i^0 q_i^b}{\sum_{i}^{n} p_i^0 q_i^b}\right)$$
(3)

where:

 $I^{0,t}$ is the index at time t with base period 0

 p_i^t is the price of elementary aggregate (Item) *i* at time *t*

 p_i^0 is the price of elementary aggregate (Item) *i* at the base period

and the $\left(\frac{p_i^o q_i^b}{\sum_i^n p_i^o q_i^b}\right)$ part of the formula is the weight part, where:

 q_i^b is the quantity of Item *i* at time point *b*

A Lowe index takes weights from weight reference (T = b) period and price updates them to base period (T = 0). As explained in Section 3, GSS uses expenditure weights based on consumer patterns derived from the GLSS7. The weights that are used are obtained by updating the expenditure shares (weights) in period $b \left(\frac{p_i^b q_i^b}{\sum_i^n p_i^b q_i^b} \right)$, for the price changes occurring between period b and 0 by multiplying them by $\frac{p_i^0}{p_i^b}$ (price relatives between T = b and T = 0). See Figures 4.1 and 4.2 for a visualization.

Figure 4.1 Lowe Index



The price reference period is the period whose prices are used as denominators in index calculations. All future prices to be collected are then compared to these prices in calculating the index. The current CPI uses the whole year of 2018 as the price reference period. This new reference period is being used since August 2019.

Figure 4.2 Lowe Index for Current CPI in Ghana



4.3 Numerical example

Tables 4.1 to 4.3 guide the reader to a numerical example. Assume that Ghanaian households only consume five Items (instant noodles, malt drinks, Kente material, rent payments and toothpaste) and that there is only one region in Ghana. First, for the five Items we need to calculate the five price indices. Assume that we collect only four prices per Item, then we see the process of calculating the elementary aggregate price index for instant noodles in Table 4.1. In the actual file, there are 4,316 indices of 307 Items and 39,461 prices. The price index between January in year 1 and January in year 2 (year-on-year CPI) is calculated as:

$$I_{\text{Instant noodles}}^{\text{Jan year 1, Jan year 2}} = \sqrt[4]{\frac{3.20}{3.00} \cdot \frac{3.80}{3.50} \cdot \frac{4.50}{3.70} \cdot \frac{3.10}{2.90} \cdot 100} = 110.77$$
(4)

In this table where a Jevons index is used, the chained month-on-month indices and the direct index between two periods are equal. This is what is meant by the index being transitive. Once there are five price indices, for example, the year-on-year CPI can be aggregated into one average CPI, using the Item weights. The Items are summarized in the first four columns of Table 4.2. The final column shows that process of aggregating the weights. Finally, Table 4.3 shows the process of calculating inflation from CPI.

	מון פוכוווכוונמו א מצעינ		•		5		Months						
06 Jan	Feb	Ma	Ap	2	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan
(year 1)													(year 2)
							Prices (¢)						
5.0 3.00	3.00	3.0	0 3.0	30 3	3.10	3.10	3.10	3.20	3.20	3.20	3.20	3.10	3.20
5.0 3.50	3.70	3.7	0 3.7	70 3	3.70	3.70	3.80	3.80	3.90	3.70	3.70	3.80	3.80
5.0 3.70	4.00	1 4.C	0 4.0	D0 4	00.1	4.20	4.20	4.30	4.40	4.40	4.40	4.50	4.50
5.0 2.90	2.8() 2.5	0 2.8	80 2	08.3	2.80	2.90	2.90	3.00	3.00	3.10	3.10	3.10
				Curr	rent-to-re	eference-	month (Ja	an year 1)	price rati	S			
1.000	1.00	1.0	00 1.0	1 000	.033	1.033	1.033	1.067	1.067	1.067	1.067	1.033	1.067
1.000	L.05	7 1.C	57 1.0	057 1	1.057	1.057	1.086	1.086	1.114	1.057	1.057	1.086	1.086
1.000	1.0£	11 1.C	81 1.0	081 1	.081	1.135	1.135	1.162	1.189	1.189	1.189	1.216	1.216
1.000 0	96.	i6 0.£	62 0.9	966 0	.966	0.966	1.000	1.000	1.034	1.034	1.069	1.069	1.069
					2	Aonth-on	-month p	rice ratio					
1.000 1	20.	1.C	00 1.0	1 000	.033	1.000	1.000	1.032	1.000	1.000	1.000	0.969	1.032
1.000	L.O5	7 1.C	00 1.0	1 000	.000	1.000	1.027	1.000	1.026	0.949	1.000	1.027	1.000
1.000 1	30.	11 1.C	00 1.0	1 000	.000	1.050	1.000	1.024	1.023	1.000	1.000	1.027	1.000
1.000 0	.96	i6 0.£	93 1.1	120 1	000.1	1.000	1.036	1.000	1.034	1.000	1.033	1.027	1.000
							Indices						
1: 100.00	102.	49 99.	63 10	12.49	03.34	104.60	106.23	107.71	109.96	108.53	109.42	109.90	110.77
ex: 100.00	102	49 97.	21 10	12.87	00.82	101.23	101.56	101.39	102.09	98.69	100.82	100.44	100.80
ex: 100.00	, v		63 10	1 01 01	12 21	101 60	106 22	107 71	100 06	108 53	100 17	109 90	110.77

regate from four prices using the levons Index 500 Table 4.1 Numerical example of creating an elementary

COICOP code	Item	current Item Index	weight	weighted index
01.1.1.5.0	Instant noodles	110.77	20	$110.77 \cdot 20 = 2215.4$
01.2.6.0.1	Malt drinks	109.73	10	$109.73 \cdot 10 = 1097.3$
03.1.1.0.3	Kente material	98.02	15	$98.02 \cdot 15 = 1470.3$
04.1.1.0.1	Rents payment	105.67	50	$105.67 \cdot 50 = 5283.5$
13.1.2.0.8	Toothpaste	140.12	5	$140.12 \cdot 5 = 700.6$
		total:	100	10767.1
			new CPI:	$\frac{10767.1}{100} = 107.67$

Table 4.2 Numerical example of aggregating Item price indices into one CPI, using weights

Table 4.3	Numerical	example	of cal	culating	inflation	from CP
-----------	-----------	---------	--------	----------	-----------	---------

Current CPI CPI previous year same month CPI previous month	107.67 102.67 106.57
year-on-year inflation:	$\frac{107.67 - 102.67}{102.67} \cdot 100 = 4.87\%$
month-on-month inflation:	$\frac{107.67 - 106.57}{106.57} \cdot 100 = 1.03\%$

4.4 **Contribution to Inflation**

The fact that CPI is a fixed-basket price index consisting of many different sub-indices (for example, the different COICOP Divisions), which have their own weights (their sum equals to 100), makes it possible to explain the changes in total CPI (month-on-month or year-on-year) in terms of the influence exerted by the changes in (inflation of) different sub-indices.

Analysis of this kind is referred to as contributions to or drivers of inflation. Contributions explain how many percentage points of the CPI percentage change come from a given sub-index. Over different months the weights of sub-indices stay the same, but their inflation rates might differ. This accounts for the different contributions to inflation for sub-indices from month-to-month. A sub-index with a high inflation rate, but very small weight will not greatly contribute to total inflation and vice versa. As an example, the price index for the Food Division contributed 6.3% out of the total 10.6% price level changes in April 2020 (see Figure 4.3). Adding all the sub-indices' contributions results in the total inflation rate. For example, if the relative price index change (inflation) for Food is 14.4% and the weight for the Food Division is 43.7 (out of 100), then the contribution to total inflation from Food is $14.4\% \cdot 0.437 = 6.3\%$. Even if all other Divisions had a zero inflation that month, the total inflation would be 6.3%. If total inflation was 8% that month then the relative contribution of the Food Division was $\frac{6.3}{10.6} \cdot 100 = 59.4\%^{6)}$ The same can be done for month-on-month inflation.

⁶⁾ Due to rounding issues, the decimals in Figure 4.3 are different.



Figure 4.3 Contributions to year-on-year and month-on-month inflation August 2019 to April 2020





Information and Communication (08)

Restaurants and Accommodation Services (11)

Insurance and Financial Services (12) Personal care, Social Protection and Miscellaneous

5 Selection of Outlets and Products

Given that the prices are collected from the sellers, two different sampling problems arise. The first is how to select the individual products within an elementary aggregate for which to collect prices. The second is how to select a sample of outlets (markets) selling those products. On the level of both products and outlets, there are no complete sampling frames available, which means that it is hard to guarantee a representative selection of products and outlets. Any selection method needs to maximize precision and minimise the cost of carrying out the price collection. It would, for example, be inefficient to separate sampling of products completely from the selection of outlets. This would result in an inefficient outcome, where only one or two prices per outlet are collected and many different outlets must be visited. For the selection of outlets and products, GSS uses a multi-tiered system, in which first cities and town were first selected, then the markets in those places, and finally the outlets within the markets.





5.1 Selection of Markets

Before the outlets (market stalls, shops, etc.) are selected, the markets where these outlets are located are selected. A market can be considered as the whole collection of outdoor market stalls, hospitals, schools, cold stores, etc. in a single town.

As explained in Section 6 a total of 44 markets were selected. Fifteen of these markets are urban and 29 rural. Because expenditure weights were calculated using the 2016/2017 GLSS7, CPI is disaggregated by 10 regions and not the new 16 regions, that define Ghana since February 2019. See Figure 5.1 and Table A.5 for summaries of the markets. The first 40 markets were selected in 1963 in the then 9 regions. Since then the number and the locations of the markets have been updated to meet changing circumstances, such as the closing of markets and the creation of extra regions. In June 2017 GSS, in consultation with international advisors and the 10 regional offices, GSS decided on the 44 markets that are currently included in the price research. For every region, at least one rural and one urban market was selected and the number of markets per region (between 3 and 6) was determined on bases of the region's population sizes and shares of total domestic expenditure. For every region, the regional capital was automatically included. After the selection of cities, market locations were selected based on the availability of Items at different markets. Markets with a large share of the products available were preferred over markets with a smaller selection of goods.

To identify the viability of a market, a team of price collectors visit a market for one or more days. During this visit, the team tries to collect as many different Items as possible in that market. If an Item is not available at a certain market, within reason, price collectors will travel to see if it is available nearby, but to keep monthly price collection feasible, the last product is not hunted down until it is found.

5.2 Selection of Outlets

Within the markets and using local knowledge, it is left to price collectors and regional statisticians to find suitable outlets selling the different Items. Price collectors are instructed to not change outlets after they are selected. Similarly to the markets, outlets with a wide range of products are preferred to outlets with a very limited selection. This means that sellers that only sell one Item are usually excluded. The exception to this are market sellers, who might only sell one type of Food-Item. Ease of data collection, to guarantee expedient calculation of CPI statistics, is also taken into consideration. This means that preference is given to outlets that are likely to remain available for price collection for multiple years and available to visit every month. This means that street hawkers and market sellers without a fixed stall are excluded. Once a shop is selected, certain meta-data, such as the location, name, and phone number are registered, to guarantee the same shop can be visited every month. In total, GSS staff visits 7,726 outlets every month for the CPI data collection.

5.3 Selection of Products

The actual 39,461 products for which prices are collected monthly, were also selected in 2017 after initial visits to the markets. As explained in Section 3.1, Items are selected on the relative expenditure of households on these Items. In total, the 307 Items on which households, at the national level, spend the most money on were selected. As explained in Section 4.1, every elementary aggregate, consists of the price quotations of many more products. The Items that are included were selected based on the results of the GLSS7. Items (the elementary aggregates) are relatively loosely defined so that products within this Item can be found at different types of markets. For example, an Item might simply be "Imported Rice" - it is then up to the collectors to find specific products. In a supermarket, a collector might select a 5kg bag of imported rice from brand A, while

another collect prices for a 1kg bag from another brand at an outdoor rural market stall. Once a product is chosen for an outlet, it is defined narrowly and described in detail (to ensure that the same product is priced each month).

The first time a product is selected at a Market, it is up to the price collectors to decide for which products prices will be collected. Price collectors are given two rules to decide which products to select:

- 1. Price collectors ask the seller, which product (for example brand) of a certain Item, is the most popular and most commonly sold; and
- Price collectors are instructed to, as much as possible, collect different brands at different outlets.

The 4,316 different elementary aggregates do not consist of an equal number of product price quotations. For example, Cashew nuts (01.1.6.8.2), only has 2 prices collected every month, while Imported rice (01.1.1.1.2) has 672 different prices collected every month.

The number of prices collected per Item depends on multiple factors. As a general rule, the number of products assigned to an Item is roughly proportional to its weight. However, more for homogeneous Items such as Electricity, fewer prices can be collected. Therefore, for Items which higher price fluctuations are expected, more prices are collected. This holds true as well for Items where it can be expected that there are large differences in price changes between outlets and more prices are collected. In general, Items with higher weights are also over-represented, because their price changes influence the CPI more.

6 Data Collection

Data collection for the calculation of the CPI is undertaken monthly by trained staff at the regional offices of the GSS using paper-based questionnaires. Prices are collected across outlets (such as supermarkets, restaurants, business entities, administrative offices and open markets) where most goods and services are purchased by households. For every product, price collectors collect both the price and the quantity. For packaged products, information on the labels are used and for fresh produce, price collectors carry their own scales to weigh the quantity of the products.

In supermarkets and department stores, the prices are collected from price tags. In outlets without advertised prices, the outlet owners or employees are asked for the price. Currently, no internet (web) shops are included. Price collectors are trained by GSS staff and are strictly instructed to always collect prices for the same product in the same shop. Prices from outlets that determine prices only once a year, like hospitals and schools, are collected at the beginning of the year and regularly checked (when possible over the phone) to make sure prices did not change.

To determine the price of renting accommodation, price quotes from local landlords are used.

6.1 Timing

Most goods in the CPI rely on field-based collection. This means that price collectors are employed to visit selected outlets and market stalls to record actual prices on the shop floor or market. GSS staff are instructed to collect data in the first week of every month. They are allowed to collect data on any day of the week, but no data are collected on Saturdays and Sundays. Certain rural and smaller urban markets that are only held a single day a week are visited on that day of the week. Price collectors are also asked to start price collection at similar times every month. This is to guarantee that the time of day does not influence the prices collected for fresh produce.

6.2 Seasonality

No product in the basket is considered seasonal. This means that all products are collected every month.

6.3 Inclusion Approach

GSS uses the 'acquisitions approach' for all goods, to decide on the time point at which a good is included in the CPI. The 'acquisitions approach' involves observing prices at the time at which the legal ownership of the good or service passes to the household. This is the time where the household and the seller reach an agreement on the transfer of goods.

Other possible approaches are the 'payment approach' and the 'consumption approach.' The 'payment approach' means that prices are included for the month in which the product of good is paid for, which might be after (or before) the good is handed to the household. For example, goods paid with a credit card might change owners a month before the financial transaction (payment of credit card debt) takes place. This makes the 'payment approach' impractical for CPI purposes, because different households use different payment methods and because GSS simply collects prices and does not actually buy the goods and services.

The 'use approach' involves observing prices at the time at which the good or service is fully consumed by the household, which again might not be at the same time as the product is paid for. For many goods and services, the choice between the three different approaches is inconsequential, because, the household's time of purchase of a good or service frequently coincides with when the household acquires and consumes that goods and services. In addition, GSS aims to collect prices for products that are both paid and consumed in the same month, which would mean the three approaches would lead to the same CPI. However, for some products, particularly durable goods or large expenditure Items, the timing of price observation can yield different results. For these Items, the three different approaches do not necessarily need to coincide. For example, a consumer might purchase a domestic flight in January for a flight that is scheduled in April. Using the 'payment approach,' or 'acquisitions approach' the flight would be included in the CPI calculation for January, but using the 'use approach' would mean the flight would be included in the CPI calculation for April.

7 Data Validation

Prices are collected using paper-based questionnaires by 10 regional offices. These offices then process these data in an Excel file. These files are then sent to the GSS Head Office staff. In the Head Office, these files are combined into one national file. At the GSS Head Office, price statistics staff check the plausibility of the collected prices manually. If the unit price of a given product deviates more the 25% compared to the previous month's unit price, action is required. Data entry mistakes, such as a missing or extra 0 in either the price or quantity, are manually corrected in the national sheet. If there is uncertainty about a large price difference, regional offices are asked to check the price again and confirm it.

8 Principles and Procedures

The CPI aims to be an index of pure price changes of a fixed basket of goods. It considers the substituting behaviour of consumers due to price changes and also aims to exclude price changes due to differences in the quantity and quality of products. In essence, it does this by keeping as many variables constant as possible and only allowing the time (month of collection) and price differ. This means that prices are collected for the same products from the same shop in the same way as much as possible.

8.1 Quantity Adjustment

Quantity adjustments are inherently easier than quality adjustments. For every product, GSS collects a unit price $\left(\frac{\text{quantity}}{\text{price}}\right)$ and not just the price. For example, if one store sells 1kg of onions for 3¢, while another store sells 5kg of onions for 15¢, they have the same unit price.

8.2 Quality Adjustments

Certain Items, especially new high-technology goods, computer equipment and transport, change in quality considerably in five year time periods. For these Items, it is hard to collect the exact same model for five consecutive years. Updated versions might be hard to compare to older versions, especially if not all characteristics of a product are known. Price changes might be because of inflation or might be because of change in quality. For example, an increase in bus ticket prices that occurs because air-conditioned transport replaces non-air-conditioned transport cannot be considered pure price changes. However, estimating the pure price change might also not be possible. Similarly, smartphone models from year-to-year are hard to compare. For these reasons, no quality adjustments of products are done between rebasing periods. Adjustments happen after every GLSS. The next GLSS round is planned for 2021/2022. Once new consumption weights are collected in the new GLSS8, a new basket of goods will be created with new Items and corresponding weights. This is why it is important that rebasing happens every five years.

8.3 New Products

New products are only added to the CPI calculation once the basket of goods is updated. This happens after every iteration of the GLSS. This allows for easier estimation of pure price changes of the fixed basket, but also means that products that are introduced to the market are only included once every five years. An exception to this are replacements of products that are no longer available

8.4 Missing Data

It is necessary to distinguish between products that are permanently and temporarily missing. Products that are temporarily missing are products which are not available and not priced in a certain month, but that are priced in subsequent months.

If a product is temporarily not available, either because it is not in stock or because an outlet is closed, the last price and quantity observation that was recorded is carried forward. If a product is not available for three consecutive months, the head office is informed and it is determined if a product will be available again or not.

If the product is determined to be permanently unavailable, a replacement outlet is found that sells the product. Similarly, if an outlet is permanently closed, head office is consulted and a new outlet, which sells the same products, is added to businesses visited each month.

If a product is no longer available on the market, for example because the specific model is no longer produced, similar steps are followed. First, the last price and quantity observation that was recorded is carried forward for a couple of months to determine if the product will return to the market or not. If after a couple of months, the product is still unavailable, a replacement product, which shares similar characteristics is introduced.

8.5 Foreign Goods

Because CPI includes only transactions between private households in Ghana and establishments operating in Ghana, no foreign prices are included in the CPI. Only products which are priced in Ghana Cedis (¢) are included. However, the prices of imported goods nevertheless have an important impact on the CPI because many of the products sold on markets are either imported or have significant imported content. As a result, changes in the exchange rate of the Ghana Cedi against other currencies impacts the CPI, since they affect prices for imported goods which are then sold to domestic consumers.

8.6 Discounts, Taxes, and Subsidies

All taxes on products, such as sales taxes, excise taxes, value-added taxes and Ghana education trust fund (GET-fund), are part of the purchase price paid by households and are included in the CPI. Similarly, subsidies are taken into account and treated as negative taxes on products. Consumers are faced with these taxes and therefore, these taxes are included. Discount prices and promotions on any product are also included.

8.7 Rounding

During the different steps of the computation of the CPI, indices are calculated to several decimal places. However, consistent with international practice, indices are rounded to one decimal place when they are published. As such, GSS uses the unrounded indices for the calculation of inflation and other statistics. This might lead users, who use the rounded indices, to not be able to exactly replicate the published percentage changes. Another side effect of rounding indices is that small consistencies between the percentage changes in the overall CPI and its sub-indices can occur. For example, the rounded percentage change of the total CPI may not be centred among the weighted rounded percentage changes of its sub-indices.

9 CPI Disaggregation and Dissemination

GSS releases CPI estimates monthly. This happens on the second Wednesday of the month after the month for which the CPI is released. Considering that prices are collected in the first week of the month, this means that there are approximately five weeks between the data collection and the release of the CPI/inflation statistics. On this second Wednesday of the month, the Government Statistician present the indices in a news release and the annexes (with detailed disaggregation of indices in tables by Division and region) and newsletter are uploaded to the GSS website.⁷⁾ Once published, the official CPI statistics are not revised.

Because of different consumer patterns and economic situations, CPI and inflation changes are not equal across Ghana. It is therefore good practice to publish regional inflation estimations in addition to the national one. Furthermore, GSS, every month, publishes some disaggregated CPI numbers for the Division and Classes within Divisions.

9.1 Disaggregation by Region

In addition to national estimates, GSS publishes regional CPIs. In certain months, the inflation in the region with the highest inflation can be three times as high as the inflation in the region with the lowest inflation that same month (see Figure 9.1 for an example).

⁷⁾ Ghana Statistical Service. Price Indices. URL: http://www.statsghana.gov.gh/Economics.php?category= NjA3MDAyNjY4LjY10TU=/webstats/3psp748376.



Figure 9.1 Example of disaggregation by begion using a chloropleth map (April 2020)

9.2 Disaggregation by COICOP Divisions

In addition to disaggregation by region, GSS also publishes disaggregated CPI statistics by the 13 COICOP Divisions (COICOP level 2) Not all Divisions are equally volatile, and there are considerable differences between the Divisions in inflation rates. Even further disaggregation to the level of Classes (COICOP level 4) is also possible and sometimes done to show relevant inflations patterns. This might reveal that inflation in a certain Division is predominantly driven by a single Class. Classes are currently the lowest level for which GSS regularly publishes CPI numbers.

9.3 Disaggregation by Rural vs. Urban

CPI numbers also disaggregated by rural and urban CPIs. For this, rural and urban markets are distinguished, as explained in Section 6.

9.4 Disaggregation by Local vs. Imported

Imported goods might experience different levels of inflations than locally produced goods. GSS releases separate CPI estimates for domestically produced goods and imported goods, every month.

10 Software

Data are collected using paper questionnaires, which are then entered in an Excel sheet in the Regional Offices. These raw price data and elementary aggregates weights are then analysed using both Stata and R to get the price indices. The indices are then analysed in R to calculate the inflation numbers. R is also used for the visualization of the inflation data.

GSS is actively working on making the code used for the index computations both more robust and flexible. This will allow more flexibility in adding or omitting products between rebasing periods, without influencing already published indices.

11 Rebasing, Chain-linking and Back Cast

11.1 Rebasing

Every so often, it is necessary to re-reference the base period of the index back to 100, which makes interpretation of the index more straightforward. Every time the CPI is rebased and the fixed basket of goods updated, the new index needs to be chain-linked to the older indices. This way, the sequence of fixed-basket indices is chained together to create a continuous time series. This is necessary to avoid having breaks in an index when a basket update is performed. In order to chain indices across baskets (meaning that the weights have been updated), expenditure weights for the two baskets must be expressed at the prices of a common period. This common period is either a month or a full year.

Rebasing, the process of resetting the index to 100 and chain-linking after an update of the basket of goods do not need to coincide, but they often do. The weight could be updated more frequently than an index is rebased without introducing a new basket of Items and weights.

With each updating, the CPI starts with a new base reference period. For example, the previous series had a reference base period of 2012 = 100 and covered the period January 2013 to July 2019. The current series has a reference period of 2018 = 100 and will cover the period from August 2019 to 2022 (the date of the next planned updating). It is possible to link these two separate series together at their common period (for example, the whole year 2018) in order to create a continuous series that will cover the period January 2013 to December 2022.

The rebasing of the CPI (that is, its conversion from one reference year or month to another) is an arithmetic operation that does not affect the relative change in CPI between two periods. The base value (usually 100), could be any positive number. To rebase a CPI ($I^{a:t}$) and express it in terms of a new CPI with reference period b ($I^{b:t}$), all values in the CPI series a: t ($I^{a:t}$) are divided by a constant. In this process t can be considered the current time period and b a time period somewhere after time point a. This constant $I^{a:b}$ is an index for price observation period b (which will be the new CPI reference period) with the initial index reference period a. The calculated results are then multiplied by 100 in order to obtain the new rebased index, with the index for the reference period b equal to 100. b could be either a month or a full year. This means that:

$$I^{b:t} = \frac{I^{a:t}}{I^{a:b}} \cdot 100 \tag{5}$$

where:

 $I^{b:t}$ is the index for a price observation period t with the new index reference period b;

 $I^{a:t}$ is the index for a price observation period t with the initial index reference period a; and

 $I^{a:b}$ is the index for price observation period b with the initial index reference period a.

As a hypothetical example of rebasing a CPI with as old base period a = 100, which is chain linked to 2018 = 100, is presented in Table 11.1.

Table 11.1 Example of CPI rebasing with a full year (2018) as reference period

Period	$I^{a:t}$	$I^{b:t}$
	a= 100	2018 = 100
January-18	151.2	$98.6 = \frac{I^{a:Jan-18}}{I^{b:average-18}} \cdot 100 = \frac{151.2}{153.3} \cdot 100$
February-18	151.1	98.6
March-18	151.6	98.9
April-18	152.1	99.2
May-18	152.4	99.4
June-18	152.9	99.7
July-18	153.8	100.3
August-18	154.2	100.6
September-18	154.1	100.5
October-18	154.8	101.0
November-18	155.5	101.4
December-18	155.8	101.6
average 2018	153.3	100.0
January-19	156.1	101.8
February-19	156.7	102.2
March-19	157	102.4
April-19	157.8	102.9
May-19	158.6	103.5
June-19	159.1	$103.8 = \frac{I^{a:June-19}}{I^{b:average-18}} \cdot 100 = \frac{159.1}{153.3} \cdot 100$

This chain-linking does not affect relative change in CPI between two periods and thus the inflation rate is unaffected by chain-linking. For example, year-on-year inflation from June 2018 to June 2019 is 4.1% in both indices $\left(\frac{159.1-152.9}{152.9} \cdot 100 = \frac{103.8-99.7}{99.7} \cdot 100 = 4.1\%\right)$. Small differences in inflation may occur due to rounding when CPI statistics are calculated.

11.2 Back Cast

In order to get a complete picture of changes in CPI, it is necessary to back cast old CPI numbers linked to the current index. This means normalizing old indexes to the current index, such that the reference period equals 100. GSS currently has a back cast going back to January 2003.⁸⁾





12 Challenges

Calculating CPI and inflation in a dynamic economy comes with challenges for statistical offices. Many problems were addressed in the latest rebasing period, but at the same time, new challenges arise. Prominent among these is the fact that since 2018, there are now 16 regions in Ghana. However, CPI has only been reported on the previous 10 regions. This is because the expenditure weights and selection of products and outlets are based on the GLSS7, which was conducted prior to the change to 16 Regions. GSS is working on changing to 16 regions.

Guaranteeing the correct collection of prices can also be a challenge. The market outlets and their inventory where prices are collected can be dynamic, which complicates collecting a price for every product every single month. GSS staff must travel to the selected outlets and collect prices every month. Due to limited funds for travel cost, changing staff and changing products, this can be

⁸⁾ These can be found here: https://www.statsghana.gov.gh/nationalaccount_macros.php?Stats= MjI5NjA1MzU3Mi43NTU1/webstats/249ssp0p7r.

troublesome for some of the regional offices. GSS is working on improved training for staff and to improve data collection, using tablets to guarantee good and expedient data collection.

Appendix A Summary tables

GSS | CPI Manual | September 2020 37

Table A.1 Summary table of products in the CPI basket, with some summary statistics. *W = Western Region, C = Central Region, GA = Greater Accra, V = Volta, E = Eastern Region, A = Ashanti Region, BA = Brong Ahafo, N = Northern Region, UE = Upper East Region, UW = Upper West Region.

Division	Group (COICOP03)	Class (COICOP04)	Subclass (COICOP05)	Item (COICOP06)	Weight	z	z	Collected in*
(CUICUPUZ)						prices	markets	
Food and	Food (01.1)	Cereals and cereal	Cereals (01.1.1.1)	Imported rice (01.1.1.1.2)	3.197	672	42	W, C, GA, V, E, A,
non-alcoholic		products (01.1.1)						BA, N, UE, UW
beverages (01)				Guinea corn/sorghum	0.038	148	34	W, C, GA, V, E, A,
				(01.1.1.1.3)				BA, N, UE, UW
				Millet (01.1.1.1.5)	0.056	91	27	W, C, GA, E, A,
								BA, N, UE, UW
				Maize (01.1.1.1.6)	0.665	175	42	W, C, GA, V, E, A,
								BA, N, UE, UW
				Local rice (01.1.1.1.9)	0.817	164	33	W, C, GA, V, E, A,
								BA, N, UE, UW
			Flour of cereals (01.1.1.2)	Wheat flour (01.1.1.2.1)	0.037	55	24	W, C, GA, V, E, BA,
								N, UE, UW
				Corn dough/corn flour	0.819	138	41	W, C, GA, V, E, A,
				(01.1.1.2.6)				BA, N, UE, UW
			Bread and bakery products	Bread (01.1.1.3.1)	2.136	274	40	W, C, GA, V, E, A,
			(01.1.1.3)					BA, N, UE, UW
				Biscuit (01.1.1.3.9)	0.376	728	43	W, C, GA, V, E, A,
								BA, N, UE, UW
			Breakfast cereals (01.1.1.4)	Other breakfast cereal	0.111	308	42	W, C, GA, V, E, A,
				(01.1.1.4.0)				BA, N, UE, UW
			Macaroni, noodles, couscous and	Instant noodles/pasta	0.152	427	43	W, C, GA, V, E, A,
			similar pasta products (01.1.1.5)	(01.1.1.5.0)				BA, N, UE, UW
		Live animals, meat and	Live land animals (01.1.2.1)	Live poultry (01.1.2.1.4)	0.48	148	28	W, C, GA, V, E, A,
		other parts of slaughtered						BA, N, UE, UW
		land animals (01.1.2)		Snail (01.1.2.1.9)	0.028	36	15	W, C, GA, E, A, BA
			Meat, fresh, chilled or frozen	Beef (01.1.2.2.1)	1.692	237	38	W, C, GA, V, E, A,
			(01.1.2.2)					BA, N, UE, UW
				Pork (01.1.2.2.2)	0.029	50	19	W, C, GA, E, A,
								BA, N, UE
				Goat meat (01.1.2.2.3)	0.263	129	30	W, C, GA, V, E, A,
								BA, N, UE, UW
				Chicken (01.1.2.2.4)	0.997	208	38	W, C, GA, V, E, A,
								BA, N, UE, UW
			Meat, dried, salted, in brine or	Dog meat (01.1.2.3.3)	0.001	m	1	ΠĒ
			smoked (01.1.2.3)	Bush meat (01.1.2.3.9)	0.033	11	9	W, GA, E, A
			Meat, offal, blood and other parts	Sausage (01.1.2.5.1)	0.002	19	8	W, V, E, A, UE, UW
			of slaughtered animals'	Corned beef (01.1.2.5.2)	0.046	280	39	W, C, GA, V, E, A,
			preparations (01.1.2.5)					BA, N, UE, UW
		Fish and other seafood	Fish, live, fresh, chilled or frozen	Tilapia (01.1.3.1.1)	0.145	14	∞	W, GA, E, A, BA,
		(01.1.3)	(01.1.3.1)					NΠ

ē
раg
next
uo
nued
Conti

ıp (COICOP03)	Class (COICOP04)	Subclass (COICOP05)	Item (COICOP06)	Weight	N prices	N markets	Collected in*
Ë 9	sh and other seafood 1.1.3) (cont.)	Fish, live, fresh, chilled or frozen (01.1.3.1) (cont.)	Fish (sea) (01.1.3.1.2)	1.505	60	25	W, C, GA, V, E, A, BA, N, UE, UW
		Fish, dried, salted, in brine or smoked (01.1.3.2)	Smoked herrings (01.1.3.2.1)	2.514	137	43	W, C, GA, V, E, A, BA, N, UE, UW
			Fish (river) (01.1.3.2.2)	1.764	98	33	W, C, GA, V, E, A, BA, N, UE, UW
			Dried fish - koobi/momoni (01.1.3.2.9)	0.344	144	35	W, C, GA, V, E, A, BA, N, UE, UW
		Fish preparations (01.1.3.3)	Tuna in vegetable oil (01.1.3.3.1)	0.212	186	38	W, C, GA, V, E, A, BA, N, UE, UW
			Mackerel tn tomato sauce (01.1.3.3.2)	0.133	414	43	W, C, GA, V, E, A, BA_N_UE_UW
			Sardines in vegetable oil (01.1.3.3.4)	0.131	499	43	W, C, GA, V, E, A, BA. N. UE. UW
			Fish fried (01.1.3.3.9)	0.028	10	4	W, V, N, UW
		Other seafood, live, fresh, chilled	Shrimps (01.1.3.4.1)	0.013	10	5	W, V, A, BA, UE
4	1111	or frozen (0.1.1.3.4)	Crab (01.1.3.4.2)	0.015	12	5	W, C, V, E, A
⊿ ה	nik, other dairy products nd eggs (01.1.4)	Other milk and cream (U1.1.4.3)	Evaporated milk (U1.1.4.3.1)	0.433	58c	44	W, C, GA, V, E, A, BA, N, UE, UW
			Powdered milk (01.1.4.3.2)	0.211	574	43	W, C, GA, V, E, A, BA, N, UE, UW
		Yoghurt and similar products (01.1.4.6)	lce cream (01.1.4.6.0)	0.128	210	25	W, C, V, E, A, BA, N, UE, UW
		Eggs (01.1.4.8)	Chicken eggs (01.1.4.8.1)	0.511	111	39	W, C, GA, V, E, A, BA, N, UE, UW
0	ils and fats (01.1.5)	Vegetable oils (01.1.5.1)	Sunflower cooking oil (01.1.5.1.1)	0.016	20	7	W, GA, A
			Palm oil (red oil) (01.1.5.1.2)	0.179	173	42	W, C, GA, V, E, A, BA, N, UE, UW
			Groundnut oil (01.1.5.1.5)	0.03	30	13	V, E, A, BA, N, UE, UW
			Coconut oil (01.1.5.1.6)	0.07	41	17	W, C, GA, V, E, A, UE
			Vegetable oil (01.1.5.1.9)	0.977	174	44	W, C, GA, V, E, A, BA, N. UE, UW
		Margarine and similar preparations (01.1.5.3)	Margarine (01.1.5.3.0)	860.0	157	43	W, C, GA, V, E, A, BA, N, UE, UW
-	-ruits and nuts (01.1.6)	Dates, figs and tropical fruits, fresh (01.1.6.1)	Avocado pear (01.1.6.1.1)	0.043	23	11	W, C, GA, V, A, BA. UE. UW
		·	Banana (01.1.6.1.2)	0.227	84	27	W, C, GA, V, E, A, BA. N. UE. UW
			Mango (01.1.6.1.5)	0.044	41	16	W, C, GA, V, E, A, N, UE
			Pawpaw (01.1.6.1.6)	0.053	27	13	W, C, GA, E, A, BA, N

Collected in*		W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE	W, C, GA, V, E, A,	BA, N, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, A	W, A, BA	W, C, V, E, A, BA,	N, UE, UW	W, C, GA, V, E, A,		M	W, C, GA, V, E, A,	BA, N, UE, UW	ш	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,		ר, 6A, N, UE	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A, BA, N, UE, UW
z	markets	29		15		14		36		21		2	m	21		39			36		2	36		44		44		44		44		37		43	r	-	21		41		44		38	c,	42
z	prices	83		40		31		107		52		4	7	55		118	c	7	115		с	123		197		150		162		144		155		147	00	70	69		131		161		116		183
Weight		0.061		0.028		0.025		0.096		0.06		0.008	600.0	0.045		0.181	200.0	100.U>	0.042		0.002	0.163		0.173		0.431		1.576		0.507		0.551		0.146	0.010	710.0	0.072		0.103		1.105		0.729		1.506
Item (COICOP06)		Pineapple (01.1.6.1.7)		Coconut (fresh) (01.1.6.1.8)		Lime (01.1.6.2.2)		Oranges (fruit) (01.1.6.2.3)		Apples (foreign) (01.1.6.3.1)		Sweet apple (01.1.6.3.9)	Grapes (01.1.6.5.1)	Watermelon (01.1.6.5.4)		Palm fruits (01.1.6.5.9)		Casnew (U1.1.6.8.2)	Groundnuts (shelled)	(01.1.6.8.8)	Cabbage (01.1.7.1.2)	Cocoyam leaves	(kontomire)/alefu (01.1.7.1.9)	Green pepper (fresh)	(01.1.7.2.1)	Garden eggs (01.1.7.2.3)		Tomatoes (fresh) (01.1.7.2.4)		Okro (fresh) (01.1.7.2.6)		Dried pepper (red) (01.1.7.2.7)		Beans (01.1.7.3.1)		Bambara beans (U1.1.7.3.2)	Carrot (01.1.7.4.1)		Garlic (01.1.7.4.2)		Onions (large) (01.1.7.4.3)		Cassava (fresh) (01.1.7.5.3)		Yam (01.1./.4)
Subclass (COICOP05)		Dates, figs and tropical fruits, fresh	(01.1.6.1) (cont.)			Citrus fruits, fresh (01.1.6.2)				Stone fruits and pome fruits, fresh	(01.1.6.3)		Other fruits, fresh (01.1.6.5)					Nuts, in shell or shelled (U1.1.6.8)			Leafy or stem vegetables, fresh or	chilled (01.1.7.1)		Fruit-bearing vegetables, fresh or	chilled (01.1.7.2)									Green leguminous vegetables, froch or obillood (01-1-7-2)			Other vegetables, fresh or chilled	(01.1.7.4)					Tubers, plantains and cooking	(c./.I.I.O) senanas	
Class (COICOP04)		Fruits and nuts (01.1.6)	(cont.)							1											Vegetables, tubers,	plantains, cooking bananas	and pulses (01.1.7)	ſ																					
Group (COICOP03)		Food (01.1) (cont.)																																											
Division	(COICOP02)	Food and	non-alcoholic	beverages (01)	(cont.)																																								

Division	Group (COICOP03)	Class (COICOP04)	Subclass (COICOP05)	Item (COICOP06)	Weight	Z	N	Collected in*
Food and	Food (01.1) (cont.)	Vegetables, tubers,	Tubers, plantains and cooking	Cocoyam (01.1.7.5.6)	0.123	61	20	W, C, GA, V, E, A,
beverages (01)		and pulses (01.1.7) (cont.)		Plantain (green) (01.1.7.5.7)	0.985	128	39	PA, UE W, C, GA, V, E, A, BA N HE HW
(2011-1)			Vegetables, tubers, plantains,	Cassava - kokonte/dough	0.656	223	41	W, C, GA, V, E, A,
			cooking bananas and pulses	(01.1.7.9.1)		1	:	BA, N, UE, UW
			ground and other preparations (01.1.7.9)	Gari (01.1.7.9.8)	0.329	167	41	W, C, GA, V, E, A, BA, N, UE, UW
			·	Tomato paste (01.1.7.9.9)	0.845	448	43	W, C, GA, V, E, A, BA, N, UE, UW
		Sugar, confectionery and desserts (01.1.8)	Cane and beet sugar (01.1.8.1)	Sugar (01.1.8.1.1)	0.293	281	44	W, C, GA, V, E, A, BA, N, UE, UW
			Jams, fruit jellies, marmalades, fruit purée and pastes, honey (01.1.8.3)	Honey (01.1.8.3.1)	0.051	38	15	W, C, GA, V, E, A, BA, N, UE
			Nut purée, nut butter and nut	Sheabutter (01.1.8.4.0)	0.073	73	28	W, C, V, E, A, BA, N TIF TIW
				Groundnuts paste (01.1.8.4.1)	0.026	9	1	A
			Chocolate, cocoa, and cocoa-based food products (01.1.8.5)	Chocolate (01.1.8.5.1)	0.034	06	28	W, C, GA, V, E, A, BA. N. UE. UW
				Milo/cocoa powder	0.407	401	44	W, C, GA, V, E, A, BA NI HE HW
			Other sugar confectionery and	Chewing gum (01.1.8.9.9)	0.022	265	43	W, C, GA, V, E, A,
			desserts n.e.c. (01.1.8.9)	Kanton State Canada Cat				BA, N, UE, UW
		Keady-made food and other food products n.e.c.	Keady-made tood (U1.1.9.1)	Kenkey with fried fish (01.1.9.1.2)	1.342	114	32	W, C, GA, V, E, A, BA. N. UE. UW
		(01.1.9)		Cooked rice (01.1.9.1.3)	3.764	108	31	W, C, GA, V, E, A,
								BA, N, UE, UW
				Fried plantain and beans	1.408	25	15	W, C, GA, V, A,
				(01.1.9.1.4)				BA, UE, UW
				Fufu and soup (01.1.9.1.6)	1.287	65	29	W, C, GA, V, E, A, BA, N, UE, UW
			Baby food (01.1.9.2)	Baby milk (01.1.9.2.1)	0.028	35	б	W, C, V, E, A, BA, UW
			•	Baby food (01.1.9.2.2)	0.1	404	42	W, C, GA, V, E, A, BA. N. UE. UW
			Salt, condiments and sauces	lodated salt (01.1.9.3.1)	0.157	198	44	W, C, GA, V, E, A,
			(S.E.T.TO)	Vinegar (01 1 9 3 9)	0 011	41	11	W C V A BA N
						ł	1	
			Spices, culinary herbs and seeds (01.1.9.4)	Spicies (cubes) (01.1.9.4.0)	0.223	278	43	W, C, GA, V, E, A, BA, N, UE, UW
			I	Ginger (01.1.9.4.1)	0.223	130	41	W, C, GA, V, E, A, BA N HF HW
	Non-alcoholic	Fruit and vegetable juices	Fruit and vegetable juices (1.2.1.0)	Fruit juice (01.2.1.0.0)	0.261	609	43	W, C, GA, V, E, A,
Continued on next	Deverages (ULLZ)	(1.2.10)						BA, IN, UE, UW

ee substitutes	esti- Coffee and coffee substitutes (01.2.2.0) ant Tea, maté and other plant products	CoffeeandcoffeesubstitutesCoffeeandcoffeesubstitutestutes (01.2.2)(01.2.2.0)Tea, maté and other plantroducts
r plant produ 0)	ant Tea, maté and other plant produion for infusion (01.2.3.0)	Tea, maté and other plant Tea, maté and other plant produproducts for infusion for infusion (01.2.3.0) (01.2.3)
4.0)	Cocoa drinks (01.2.4.0)	Cocoa drinks (01.2.4) Cocoa drinks (01.2.4.0)
	Water (01.2.5.0)	Water (01.2.5) Water (01.2.5.0)
()	Soft drinks (01.2.6.0)	Soft drinks (01.2.6) Soft drinks (01.2.6.0)
02.1.1.0)	 Spirits and liquors (02.1.1.0) 	Spirits and liquors (02.1.1) Spirits and liquors (02.1.1.0)
02.1.2.1)	Wine from grapes (02.1.2.1)	Wine (02.1.2) Wine from grapes (02.1.2.1)
	Beer (02.1.3.0)	Beer (02.1.3) Beer (02.1.3.0)
erages	ges Other alcoholic beverages (02.1.9.0)	Other alcoholic beverages Other alcoholic beverages (02.1.9) (02.1.9)
(Cigarettes (02.3.0.1)	Tobacco (02.3.0)] Cigarettes (02.3.0.1)
	Narcotics (02.4.0.0)	Narcotics (02.4.0) Narcotics (02.4.0.0)
3.1.1.0)	Clothing material (03.1.1.0)	Garments (03.1.2) Clothing material (03.1.1.0)

Collected in*		W, C, GA, V, E, A,	BA, N, UE	W, C, GA, V, E, A,	BA, N, UE, UW	W. C. GA. V. A.	BA, N, UE, UW	W C GA V F A	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, V, A, BA, N,	UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A, BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, E, A, BA, N, UE, UW		w, c, ga, v, e, a, BA, N, UE, UW	W, C, GA, V, E, A, BA_N_LE_LIM		W, C, V, E, A, BA, N, UE	W, C, GA, A, N, UE	W. C. V. E. A. BA.	N, UE, UW	W, C, GA, V, E, A, BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W. C. GA. V. E. A.	BA, N, UE, UW	W. V. A. N. UE	W, C, GA, V, A,	BA. N. UE. UW	W, C, V, E, A, BA,	N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW
z	markets	23		36		20	ł	30	2	30		21		35		33	25		24	77	77	23	9	13	11	25	2	29	27		24		ы	22		29		19		17	
z	prices	106		367		06		120		80		46		133		169	55		50	C/2	77	69	:	40	26	59	}	164	64		45	1	10	152		137		46		44	
Weight		0.228		0.284		0.225		0.256	2	0.29		0.166		0.284		0.145	0.135		0.077	0 117	/11.0	0.137		0.065	0.102	0.085		1.118	0.172		0.154		0.037	0.045		0.034		0.04		0.039	
Item (COICOP06)		Kente (03.1.1.0.3)		Men's t-Shirt (03.1.2.1.1)		Bov's shirt (03.1.2.1.2)		Ready-made clothing men	(jeans/khaki) (03.1.2.1.3)	Ready-made clothing men	(trousers) (03.1.2.1.4)	Ready-made clothing boys	(03.1.2.1.5)	Underwear (male) (03.1.2.1.6)		Women's blouse (03.1.2.2.1)	Girl's dress (03.1.2.2.2)		Girl's underwear (03.1.2.2.3)	Momen joans shorts	women jeans shorts (03.1.2.2.4)	Skirt and blouse (03.1.2.2.5)	-	Women's summer pants (03.1.2.2.6)	African wear women (03.1.2.2.7)	Underwear women	(03.1.2.2.8)	Children's wear (03.1.2.3.1)	School uniforms boys	(03.1.2.4.1)	School uniforms girls	(03.1.2.4.2)	Sports clothes (03.1.2.4.3)	Smock (03.1.3.1.1)		Handkerchief (women)	(03.1.3.1.2)	Men's belt (03.1.3.1.3)		Polyester Tie (03.1.3.1.4)	
Subclass (COICOP05)		Clothing material (03.1.1.0) (cont.)		Garments for men or boys	(03.1.2.1)							I		I		Garments for women or girls (03.1.2.2)	I								I	1		Garments for infants (03.1.2.3)	School uniforms (03.1.2.4)				-	Other articles of clothing (03.1.3.1))			I			
Class (COICOP04)		Garments (03.1.2) (cont.)																																Other articles of clothing	and clothing accessories	(03.1.3)					
Group (COICOP03)		Clothing (03.1) (cont.)																																							
Division	(COICOP02)	Clothing and	footwear (03)	(cont.)																																					

Collected in*		C, E, A, BA, UE	W, C, GA, V, E, A, BA, N, UE, UW	W, C, GA, V, E, A, BA, UE	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UW	W, C, GA, V, E, A, BA, N, UE, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A, BA, N, UE, UW	W, C, V, E, A, N, UE	W, C, GA, V, E, A,	BA, N, UE	W, C, GA, V, E, A,	BA, N, UE	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, V, E, A, BA N HE HW	W. C. GA. V. E. A.	BA, N, UE, UW	W, C, V, A, BA, UE,	MU	W, C, GA, V, E, A,	W. C. GA. V. E. A.	BA, N, UE	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, V, A, BA, UE	V, A, BA, UE
z	נוומנאפרא	ε	34	6	39		29		31	35		36	21	33		26		37		36	35		∞		42	17	i	27		11	9
z	brices	9	79	88	294		173		240	240		205	119	473		110		156		311	103		59		370	111		182		26	32
Weight		0.01	0.05	0.004	0.41		0.116	1	0.106	0.638		0.622	0.393	0.024		3.656		0.308		0.084	0.377		0.062		0.679	0.065		0.11		0.513	0.032
Item (COICOP06)		Other articles of clothing (03.1.3.1.5)	Men's socks (03.1.3.1.6)	Dry cleaning (03.1.4.1.1)	Tailoring charges (women)	(03.1.4.2.1)	Tailoring charges (men)	(03.1.4.2.2)	Tailoring charges (children) (03.1.4.2.3)	Footwear men (03.2.1.1.1)		Footwear women (03.2.1.2.1)	Footwear children (03.2.1.3.1)	Repairs of footwear	(03.2.2.0.2)	Rents payment (04.1.1.0.1)		Roofing sheets (04.3.1.1.1)		Iron rods (04.3.1.1.2)	Cement (minor repairs)	(04.3.1.1.3)	Cement blocks (04.3.1.1.4)		Paint (04.3.1.1.5)	Windows/doors (04.3.1.1.6)		Wood (04.3.1.1.7)		Other materials for maintenance (04.3.1.1.8)	Labour for maintenance
Subclass (COICOP05)		Other articles of clothing (03.1.3.1) (cont.)		Cleaning of clothing (03.1.4.1)	Repair, tailoring and hire of	clothing (03.1.4.2)				Footwear for men (03.2.1.1)		Footwear for women (03.2.1.2)	Footwear for infants and children (03.2.1.3)	Cleaning, repair, and hire of	footwear (03.2.2.0)	Actual rentals paid by tenants for	main residence (04.1.1.0)	Materials for the maintenance and	repair of the dwelling (04.3.1.1)	Ι				I				I		I	Services for the maintenance, re-
Class (COICOP04)		Other articles of clothing and clothing accessories	(03.1.3) (cont.)	Cleaning, repair, tailoring and hire of clothing	(03.1.4)					Shoes and other footwear	(03.2.1)		I	Cleaning, repair, and hire of	footwear (03.2.2)]	Actual rentals paid by	tenants for main residence (04.1.1)	Security equipment and	materials for the	the dwelling (04.3.1)											Services for the mainte-
Group (COICOP03)		Clothing (03.1) (cont.)								Footwear (03.2)						Actual rentals for hous-	ing (04.1)	Maintenance, repair	and security of the	dwelling (04.3)											
Division	(LUILUPUZ)	Clothing and footwear (03)	(cont.)													Housing, water,	electricity, gas and other fuels	(04)													

Collected in*		W, V, A, BA, N	W, C, V, A, BA, N,	UE	W, C, A, BA, N, UE	W, V, UE, UW	W, C, V, E, A, BA, N, UE	A, N, UE	W, C, V, E, A, BA, N, UE, UW	W, C, V, A, UE	C, V, E, A, N, UE	W, C, GA, V, E, A, BA, N, UE	W, C, GA, V, E, A, BA, N, UE, UW	W, C, GA, V, E, A, BA, N, UE, UW	C, V, E, A, BA, N	W, C, V, E, A, BA, N, UE, UW	W, C, V, A, BA, N, UE	W, C, V, E, A, BA, N, UE, UW	W, C, V, E, A, BA, N, UE, UW	W, C, GA, V, E, A, BA, N, UW	W, C, GA, V, E, A,	BA, N, UE, UW	W, C, GA, E, A, BA, N, UE, UW	W, C, A, BA, N, UE	W, V, E, A, BA	C, GA, V, E, A, BA, N 11F 11W
z	markets	Q	18		9	4	23	ŝ	16	10	10	30	35	31	2	20	14	29	26	15	33		12	∞	∞	13
z	prices	11	74		∞	ъ	49	9	36	20	17	100	101	137	18	61	43	124	63	24	84		29	20	19	34
Weight		0.247	0.752		0.153	0.032	0.285	0.622	0.494	0.057	0.352	1.518	0.131	0.064	0.007	0.018	0.013	0.019	0.016	0.014	0.026		0.014	<0.001	0.021	0.032
Item (COICOP06)		Water supply (04.4.1.1.1)	Re-sold tap water in	buckets/barrels/jerrycans (04.4.1.2.1)	Refuse disposal (04.4.2.0.1)	Sewage collection (04.4.3.1.1)	Public toilets fees (04.4.3.2.1)	Electricity (04.5.1.0.1)	Gas (04.5.2.2.1)	Liquid fuel (04.5.3.0.1)	Solid fuels (firewood) (04.5.4.2.1)	Charcoal (04.5.4.3.1)	Foam mattress (05.1.1.1.1)	Bedsteads (05.1.1.1.2)	Other furniture and furnishing items (05.1.1.1.3)	Two doors wardrobe (05.1.1.1.4)	Chest of drawers (05.1.1.1.5)	Chair (05.1.1.1.6)	Table (05.1.1.1.7)	Wall clock (05.1.1.4.1)	Polypropylene carpet	(05.1.1.4.2)	Woolen carpet (05.1.1.4.3)	Repairs of tables and chairs (05.1.2.0.1)	Other household textiles (05.2.1.2.1)	Curtain material (05.2.1.2.2)
Subclass (COICOP05)		Water supply through network systems (04.4.1.1)	Water supply through other	systems (04.4.1.2)	Refuse collection (04.4.2.0)	Sewage collection through sewer systems (04.4.3.1)	Sewage collection through onsite sanitation systems (04.4.3.2)	Electricity (04.5.1.0)	Liquefied hydrocarbons (04.5.2.2)	Liquid fuels (04.5.3.0)	Wood fuel, including pellets and briquettes (04.5.4.2)	Charcoal (04.5.4.3)	Household furniture (05.1.1.1)	I	-	I	-	I	-	Furnishings, loose carpets and rugs (05.1.1.4.1)	I		ſ	Repair, installation and hire of furni- ture, furnishings and loose carpets (05.1 2.0)	Bed linen and bedding (05.2.1.2)	
Class (COICOP04)		Water supply (04.4.1)			Refuse collection (04.4.2)	Sewage collection (04.4.3)		Electricity (04.5.1)	Gas (04.5.2)	Liquid fuels (04.5.3)	Solid fuels (04.5.4)		Furniture, furnishings and loose carpets (05.1.1)											Repair, installation and hire of furniture, furnishings and loose carnets (05,1,2)	Household textiles (05.2.1)	
Group (COICOP03)		Water supply and miscellaneous services	relating to the dwelling	(04.4)				Electricity, gas and	other fuels (04.5)				Furniture, furnishings and loose carpets	(05.1)											Household textiles (05.2)	(
Division	(COICOP02)	Housing, water, electricity, gas	and other fuels	(04) (cont.)									Furnishings, household	equipment and routine	household maintenance	(05)										

t N N Collected in* prices markets	114 32 W, C, GA, V, E, A, RA N HF HW	66 15 W, C, GA, V, E, A, BA, N, UE, UW	97 33 W, C, GA, V, E, A,	BA, N, UE, UW	200 28 W, C, GA, V, E, A, BA, N, UE, UW	124 23 W, C, GA, V, E, A, BA, N, UE, UW	57 16 W, GA, V, E, A, BA, N, UE, UW	36 15 W, C, GA, V, E, A, BA, N, UE, UW	99 33 W, C, GA, V, E, A, BA, N, UE, UW	13 8 W, C, GA, E, A, BA, N	18 7 W, GA, E, A	27 12 W, C, GA, V, BA, N	88 27 W, C, GA, V, E, A, BA, N, UE, UW	73 22 W, C, GA, V, E, A, BA, N, UE, UW	10 6 W, V, A, BA, N, UE	145 34 W, C, GA, V, E, A, BA. N. UE. UW	97 29 W, C, GA, V, E, A, BA, N, UE, UW	117 31 W, C, V, E, A, BA, N. UE, UW	146 35 W, C, GA, V, E, A, BA N HE HW	230 38 W, C, GA, V, E, A,	DA NITETIAN	BA, IV, UE, UVV	15 6 W, C, A, BA, N, UE	15 6 W, C, A, BA, N, UE 5 3 W, A, N	15 6 W, C, A, BA, N, UE 5 3 W, A, N 67 29 W, C, GA, V, E, A,	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW 77 33 W, GA V, E A	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW BA, N, UE, UW BA, N, UE, UW	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW BA, N, UE, UW BA, N, UE, UW	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW BA, N, UE, UW	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW BA, N, UE, UW	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW BA, N, UE, UW 02 20 W, C, GA, V, E, A	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW 77 33 W, C, GA, V, E, A, 93 39 W, C, GA, V, E, A,	15 6 W, C, A, BA, N, UE, UW 5 3 W, A, N 67 29 W, C, GA, V, E, A, BA, N, UE, UW 77 33 W, C, GA, V, E, A, BA, N, UE, UW 93 39 W, C, GA, V, E, A,
Weight	0.047	0.038	0.043	4 L C C	140.0	0.047	0.035	0.039	0.039	0.032	0.013	0.013	0.02	0.02	0.006	0.022	0.021	0.059	0.077	0.077			0.003	0.003	0.003 0.001 0.011	0.003 0.001 0.011	0.003 0.001 0.011 0.011	0.003 0.001 0.011 0.011	0.003 0.001 0.011 0.011	0.003 0.001 0.011 0.011	0.003 0.001 0.011 0.011	0.003 0.001 0.011 0.011 0.011	0.003 0.001 0.011 0.011 0.012
Item (COICOP06)	Bedsheet (05.2.1.2.3)	Blanket (05.2.1.2.4)	Towels (05.2.1.2.5)	()	(1.1.1.3.cove (U2.3.1.1.1)	Refrigerators and freezers (05.3.1.1.2)	Washing machines (05.3.1.2.1)	Air conditioners (05.3.1.3.1)	Broom (05.3.1.4.4)	Electric sewing machine (05.3.1.9.1)	Rice cooker (05.3.2.1.1)	Toaster (05.3.2.1.2)	Blender (05.3.2.1.3)	Electric kettle (05.3.2.2.1)	Other small electric household appliances (05.3.2.3)	Dry electric iron (05.3.2.9.1)	Pedestal fan (05.3.2.9.2)	Cups and mugs (05.4.0.1.1)	Plates (05.4.0.2.1)	Aluminium cooking utensils	(05.4.0.3.1)		Motorised tools and equipment (05.5.1.0.1)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3) Cutlasses (05.5.2.1.4)	Motorised tools and equipment (05.5.1.0.1) Vacuum cleaner (05.5.2.1.1) Mop and handle (05.5.2.1.2) Bucket (05.5.2.1.3) Cutlasses (05.5.2.1.4)
Subclass (COICOP05)	Bed linen and bedding (05.2.1.2)				Major kitchen appliances (05.3.1.1)		Major laundry appliances (05.3.1.2)	Heaters, air conditioners (05.3.1.3)	Cleaning equipment (05.3.1.4)	Other major household appliances (05.3.1.9)	Small appliances for cooking and	processing of food (05.3.2.1)		Small appliances for preparing beverages (05.3.2.2)		Other small household appliance (05.3.2.9)		Glassware, crystal-ware, ceramic ware and chinaware (05.4.0.1)	Cutlery, flatware and silverware	Kitchen utensils and articles	(05.4.0.3)		Motorized tools and equipment (05.5.1.0)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)	Motorized tools and equipment (05.5.1.0) Non-motorized tools (05.5.2.1)
Class (COICOP04)	Household textiles (05.2.1)				Major household appliances, whether	electric or not (05.3.1)				•	Small household	appliances (05.3.2)				•		Glassware, tableware and household utensils (05.4.0)					Motorized tools and equip- ment (05.5.1)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)	Motorized tools and equip- ment (05.5.1) Non-motorized tools and miscellaneous accessories (05.5.2)
Group (COICOP03)	Household textiles				Household appliances (05.3)													Glassware, tableware and household utensils	(05.4)			- - H	lools and equipment for house and garden	lools and equipment for house and garden (05.5)	lools and equipment for house and garden (05.5)	loois and equipment for house and garden (05.5)	loois and equipment for house and garden (05.5)	lools and equipment for house and garden (05.5)	lools and equipment for house and garden (05.5)	loois and equipment for house and garden (05.5)	loois and equipment for house and garden (05.5)	lools and equipment for house and garden (05.5)	loois and equipment for house and garden (05.5)
Division (COICOP02)	Furnishings,	equipment and routine	household	maintenance	(.100) (cont.)																												

Division				Item (COICOPO6)	Weight	Z	z	Collected in*
(COICOP02)					0.0	prices	markets	5
Furnishings,	Tools and equipment	Non-motorized tools and	Non-motorized tools (05.5.2.1)	Shovel (Metal) (05.5.2.1.5)	0.012	108	37	W, C, GA, V, E, A, BA N HE HW
liouselloid			(cuiit.)					DA, N, UE, UW
equipment and routine	(05.5) (cont.)	(05.5.2) (cont.)		Rake (05.5.2.1.6)	0.01	33 8	17	W, C, GA, V, E, A, BA, UE, UW
household			•	Wheelbarrow (05.5.2.1.7)	0.012	75	31	W, C, GA, V, E, A,
maintenance				-				BA, N, UE, UW
(05) (cont.)		Non-motorized tools and	Miscellaneous accessories	Other lighting products	0.089	114	34	W, C, GA, V, E, A,
		miscellaneous accessories (05.5.2)	(05.5.2.2) (cont.)	(05.5.2.2.1)				BA, N, UE, UW
				Light bulbs (05.5.2.2.2)	0.103	190	39	W, C, GA, V, E, A,
								BA, N, UE, UW
	Goods and services for	Non-durable household	Household cleaning and	Disinfectants (05.6.1.1.1)	0.056	169	30	W, C, GA, V, E, A,
	routine household	goods (05.6.1)	maintenance products (05.6.1.1)					BA, N, UE, UW
	maintenance (05.6)			Bleaches (05.6.1.1.2)	0.041	74	20	W, C, GA, V, E, A, BA NI IIF
				Washing nowder (05.6.1.1.3)	0 541	744	42	W/ C GA V F A
					1		ł	BA, N, UE, UW
				Washing soap (05.6.1.1.4)	1	300	43	W, C, GA, V, E, A, BA, N, HE, HW
			Other non-durable household	Insecticides suravs (05.6.1.0.1)	0.087	217	VV	
			Currer rivir-durable riouseriold goods (05.6.1.9)	(T.E.T.O.CO) shards sananasili	200.0	177	;	w, c, dA, v, c, A, BA, N, UE, UW
			I	Matches (05.6.1.9.2)	0.023	113	37	W, C, V, E, A, BA, N. UE. UW
			Other non-durable boucebold	Other non-durable goods	0.016	110	30	
			Curier inori-durable incuserious goods (05.6.1.9)	Other 11011-dui able goods (05.6.1.9.3)	010.0	т+0	Dc	W, C, GA, V, E, A, BA, N, UE, UW
				Shoe polish (05.6.1.9.4)	0.017	134	38	W. C. GA. V. E. A.
				-				BA, N, UE, UW
			Other non-durable household	Candle (05.6.1.9.5)	0.017	116	35	W, C, GA, V, E, A,
			goods (05.6.1.9)					BA, N, UE, UW
				Insecticides coil (05.6.1.9.6)	0.082	153	43	W, C, GA, V, E, A, BA, N, UE, UW
		Domestic services and household services (05.6.2)	Domestic services by paid staff (05.6.2.1)	Domestic services and household services (05.6.2.1.1)	0.01	2	2	A, UE
Health (06)	Medicines and health	Medicines (06.1.1)	Medicines, vaccines and other	Antibiotics (06.1.1.1.1)	0.107	845	42	W, C, GA, V, E, A,
	products (06.1)		pharmaceutical preparations					BA, N, UE, UW
			(06.1.1.1)	Anti-malaria (06.1.1.1.2)	0.078	160	30	W, C, GA, A, BA,
								N, UE, UW
				Pain killers (06.1.1.1.3)	0.1	277	43	W, C, GA, V, E, A, BA, N, UE, UW
			Herbal medicines and homeopathic	Traditional Ghanaian drugs	0.067	176	30	W, C, V, E, A, BA,
			products (06.1.1.2)	(06.1.1.2.1)				N, UE, UW
		Medical products (06.1.2)	Medical diagnostic products	Other medical products	0.048	358	41	W, C, GA, V, E, A,
				(T.T.Z.T.GU)	0000			BA, N, UE, UW
			Prevention and protective devices (06.1.2.2)	Contraceptives (Ub.1.2.2.1)	0.022	248	44	W, C, GA, V, E, A, BA, N, UE, UW
Continued on next	page							

UIVISION (COICOP02)	Group (COICOP03)	Class (COICOP04)	(colcopos) subclass	Item (COICOP06)	Weight	N prices	N markets	Collected in *
Health (06) (cont.)	Medicines and health products (06.1) (cont.)	Assistive products (06.1.3)	Assistive products for vision (06.1.3.1)	Eye specialist (06.1.3.1.1)	0.002	12	ы	W, C, V, E, A
	Outpatient care services (06.2)	Preventive care services (06.2.1)	Dental preventive services (06.2.2.1)	Cost of public dental services (06.2.2.1.1)	0.002	66	15	W, C, GA, V, E, A, N, UE, UW
		Other outpatient care ser- vices (06.2.3)	Outpatient curative and rehabilita- tive services (06.2.3.1)	Doctor's consulting fee (06.2.3.1.1)	0.218	131	26	W, C, GA, V, E, A, BA, N, UE, UW
	Inpatient care services	Inpatient curative and reha-	Inpatient curative and rehabilita-	Hospital services (bed	0.086	19	10	W, C, GA, V, A, N
		Dilitative services (UD.3.1)		occupancy) (Je.3.1.U.1)	000 0	77		
	Other health services (06.4)	Ulagnostic Imaging services and medical	Diagnostic imaging services and medical laboratory services	Laboratory test (U6.4.1.U.1)	600.0	٩/	73	W, C, GA, V, E, A, BA, N, UF, UW
		laboratory services (06.4.1)	(06.4.1.0)	X-rays (06.4.1.0.2)	0.006	21	11	W, GA, V, E, A, N
Transport (07)	Purchase of vehicles	Motor cars (07.1.1)	New motor cars (07.1.1.1)	New car (07.1.1.1.1)	0.558	18	m	GA, A, N
	(07.1)		Second-hand motor cars (07.1.1.2)	Second-hand car (07.1.1.2.1)	0.416	26	2	W, A
		Motorcycles (07.1.2)	Motorcycles (07.1.2.0)	Purchase of new and	0.419	46	12	W, GA, V, A, BA,
				second-hand motor cycles (07.1.2.0.1)				N, UE, UW
		Bicycles (07.1.3)	Bicycles (07.1.3.0)	Purchase of new bicycles	0.027	22	6	W, C, GA, E, A, N,
				(07.1.3.0.1)				UE
	Operation of personal transport equipment	Parts and accessories for	Tyres (07.2.1.1)	Purchase of tire (07.2.1.1.1)	0.06	59	17	W, GA, V, E, A, BA, N TIF TIW
	(07.2)	equipment (07.2.1)	Parts for personal transport	Car battery (07.2.1.2.1)	0.02	38	11	W. C. V. E. A. BA.
			equipment (07.2.1.2)					N, UE
				Spark plug (07.2.1.2.2)	0.054	20	10	W, C, V, E, A, N
		Fuels and lubricants for	Diesel (07.2.2.1)	Diesel (07.2.2.1.1)	0.147	77	30	W, C, GA, V, E, A,
		personal transport						BA, N, UE
		equipment (07.2.2)	Petrol (07.2.2.2)	Petrol (07.2.2.2.1)	1.49	101	32	W, C, GA, V, E, A,
								BA, N, UE, UW
			Lubricants (07.2.2.4)	Lubricants (07.2.2.4.1)	0.087	131	26	W, C, GA, V, E, A,
								BA, N, UE
		Maintenance and repair of	Maintenance and repair of	Motor maintenance, repair	0.116	150	25	W, C, GA, V, A,
		personal transport equipment (07.2.3)	personal transport equipment (07.2.3.0)	and other service charges (07.2.3.0.1)				BA, N, UE
			·	Parking space and other services (07.2.3.0.4)	<0.001	9	2	N, UE
		Other services in respect of	Driving lessons, tests, licences, and	Driver's lesson fees (07.2.4.3.1)	0.013	20	∞	W, V, A, BA, N,
		personal transport equip- ment (07.2.4)	road worthiness tests (07.2.4.3)					UE, UW
	Passenger transport	Passenger transport by	Passenger transport by bus and	Bus and trotro fares	5.758	149	33	W, C, GA, V, E, A,
	services (07.3)	road (07.3.2)	coach (07.3.2.1)	(07.3.2.1.2)				BA, N, UE, UW
			Passenger transport by taxi and	Taxi fares (07.3.2.2.1)	0.729	54	23	W, C, V, E, A, BA, N 11F
				Car hiring (07 3 2 2 2)	0.074	10	ſ	W A IIW
		Passenger transport by air (07.3.3)	Passenger transport by air, domes- tic (07.3.3.1)	Cost of travel by air (07.3.3.1.1)	0.233	19	4	W, GA, A, N

Division	Groun (COICOP03)	Class (COICOP04)	Subclass (COICOPOS)	Item (COICOP06)	Weight	z	z	Collected in*
(COICOP02)						prices	markets	
Transport (07)	Passenger transport	Passenger transport by	Passenger transport by sea and in-	Cost of travel by ferries and	0.003	4	1	>
(cont.)	services (07.3) (cont.)	sea and inland waterway (07.3.4)	land waterway (07.3.4.0)	canoes (07.3.4.0.1)				
	Transport services of goods (07.4)	Postal and courier services (07.4.1)	Letter handling services (07.4.1.1)	Postal services (07.4.1.1.1)	0.118	61	18	W, C, V, A, BA, N, UE, UW
			Courier and parcel delivery services	Cost Of luggage and items	0.002	2	1	M
			(0/.4.1.2)	transported unaccompanied (07.4.1.2.1)				
Information	Information and	Fixed telephone	Fixed telephone equipment	Telephones handset	0.013	9	ъ	W, C, A, BA, N
and	communication	equipment (08.1.1)	(08.1.1.0)	(08.1.1.0.1)				
communication (08)	equipment (08.1)	Mobile telephone equipment (08.1.2)	Mobile telephone equipment (08.1.2.0)	Mobile phones (08.1.2.0.1)	1.531	446	35	W, C, GA, V, E, A, BA, N, UE, UW
		Information processing equipment (08.1.3)	Computers, laptops and tablets (08.1.3.1)	Personal computers (desktop and notebook) (08.1.3.1.1)	0.259	88	12	W, C, GA, V, E, A, BA, N, UE
			Peripheral equipment and its con-	Other electronic information	0.154	117	26	W, C, GA, V, E, A,
			sumable components (08.1.3.2)	processing products (08.1.3.2.1)				BA, N, UE, UW
		Equipment for the recep-	Equipment for the reception,	Radios DVD players, etc	1.179	141	29	W, C, GA, V, E, A,
		tion, recording and repro-	recording and reproduction of	(08.1.4.0.1)				BA, N, UE, UW
		duction of sound and vision (08.1.4)	sound and vision (08.1.4.0)					
	Information and	Mobile communication ser-	Mobile communication services	Prepaid phone card (incl. SMS	0.085	7	7	BA
	communication	vices (08.3.2)	(08.3.2.0)	and data bundles) (08.3.2.0.1)				
	services (08.3)	Internet access provision	Internet access provision services	Other communication charges	0.311	34	16	W, C, GA, V, E, A,
		services and net storage services (08.3.3)	and net storage services (08.3.3.0)	(internet) (08.3.3.0.1)				BA, N, UE
		Densir and rental of infor-	Densir and rental of information	Benair of nhones and fav	0 157	196	11	
		metion and communication	and communication equipment	markines (08 3 5 0 1)	707.0	DOT 1	+ -	עי, כ, ע, א, של, של, ש, עוד דווא/
		equipment (08.3.5)	(08.3.5.0)					
Recreation,	Other recreational	Equipment for camping and	Equipment for camping and open-	Equipment for sport, camping	0.017	30	12	W, V, E, A, BA, N,
sport and culture (09)	goods (09.2)	open-air recreation (09.2.2)	air recreation (09.2.2.2)	and open-air recreation (09.2.2.2.1)				UE
	Garden products and	Garden products, plants	Plants, seeds and flowers (09.3.1.2)	Gardens, plants and glowers	0.008	9	4	V, A, BA, N
		Dets and products for nets	Droducts for pats and other house-	Dets and related products	0.032	35	13	WGAVEARA
		(09.3.2)	hold animals (09.3.2.2)	(09.3.2.2)	70.0	Ċ,	CT	w, aa, v, r, a, ea, N, UE, UW
	Recreational services (09.4)	Recreational and sporting services (09.4.6)	Sporting services - attendance (09.4.6.3)	Games of chance (09.4.6.3.1)	0.089	12	ഹ	W, C, E, A, N
	Cultural services (09.6)	Services provided by	Services provided by cinemas,	Cinema/cultural services	0.269	7	m	A, BA, UE
		cinemas, theatres and	theatres and concert venues	(09.6.1.0.1)				
		concert venues (09.6.1)	(09.6.1.0)	Musical instrument (09.6.1.0.2)	0.272	39	7	W, E, A, BA, N, UE
	Newspapers, books	Books (09.7.1)	Educational and text books	English textbook (09.7.1.1.1)	1.338	134	28	W, C, GA, V, E, A,
	and stationary (09.7)		(09.7.1.1)			-	2	BA, N, UE, UW
Continued on next	t page							

Division	Group (COICOP03)	Class (COICOP04)	Subclass (COICOPO5)	Item (COICOP06)	Weight	z	z	Collected in*
(COICOP02)					0	prices	markets	
Recreation,	Newspapers, books	Books (09.7.1) (cont.)	Educational and text books	Mathematical textbook	0.914	113	27	W, C, GA, V, E, A,
sport and	and stationary (09.7)		(09.7.1.1) (cont.)	(09.7.1.1.2)				BA, N, UE, UW
culture (09)	(cont.)			Dictionary (09.7.1.1.3)	0.175	81	27	W, C, GA, V, E, A,
(cont.)								BA, N, UE, UW
		Newspapers and periodi- cals (09.7.2)	Newspapers (09.7.2.1)	Newspapers and periodicals (09.7.2.1.1)	0.031	<u>66</u>	10	W, C, A, BA, N, UE
		Stationery and drawing	Stationery and drawing materials	Stationery and drawing	0.186	359	42	W, C, GA, V, E, A,
		materials (09.7.4)	(09.7.4.0)	materials (09.7.4.0.1)				BA, N, UE, UW
				Other stationary materials	0.167	207	42	W, C, GA, V, E, A,
			•	(09.7.4.0.2)				BA, N, UE, UW
Education services (10)	Early childhood and pri- mary education (10.1)	Early childhood and pri- mary education (10.1.0)	Primary education (10.1.0.2)	Pre-primary and primary education (10.1.0.2.1)	2.023	192	28	W, C, GA, V, A, BA, N, UE, UW
	Secondary education	Secondary education	Secondary education (10.2.0.0)	Public/private secondary school fees (SSS) (10.2.0.0.1)	3.041	214	32	W, C, GA, V, E, A, BA_N_LIF_LIW
					0.000	,	,	
	Post-secondary non- tertiary education (10.3)	Post-secondary non- tertiary education (10.3.0)	Post-secondary non-tertiary educa- tion (10.3.0.0)	Post-secondary non-tertiary education (10.3.0.0.1)	600.0	n	7	A, N
	Tertiary education (10.4)	Tertiary education (10.4.0)	Tertiary education (10.4.0.0)	University fees (10.4.0.0.1)	1.097	53	б	W, C, GA, V, A, BA, UE
	Education not defined by level (10.5)	Education not defined by level (10.5.0)	Other education not defined by level (10.5.0.9)	Education not definable by level (10.5.0.9.1)	0.4	67	22	W, C, V, E, A, BA, N, UE
Restaurant ac- commodation	Food and beverage serving serving serving services (11.1)	Restaurants, cafés and the like (11.1.1)	Restaurants, cafés and the like – with full service (11.1.1.1)	Restaurants, cafes and the like (11.1.1.1.2)	0.362	41	7	W, C, V, A, BA, UW
services (11)	Accommodation ser-	Accommodation services	Accommodation services of board-	Accommodation (hotel)	2.343	103	25	W, C, V, E, A, BA,
	vices (11.2)	(11.2.0)	ing schools, universities and other educational establishments (11.2.0.3)	(11.2.0.3.1)				N, UE, UW
				Hostel dormitory accommodation (11.2.0.3.2)	0.522	7	4	W, C, V, A
Insurance and	Insurance (12.1)	Life and accident insurance	Life and accident insurance	Life insurance (12.1.1.0.1)	0.014	4	2	W, A
			()		0.010	c	-	
services (12)		insurance connected with health (12.1.2)	insurance connected with nealth (12.1.2.0)	insurance connected with health (12.1.2.0.1)	ZCU.U	ת	4	v, A, UE
		Insurance connected with	Insurance connected with trans-	Insurance connected with	0.1	24	6	W, C, E, A, BA
		transport (12.1.4)	port (12.1.4.0)	transport (12.1.4.0.1)	1			,
	Insurance (12.2)	Other financial services (12.2.9)	Other financial services n.e.c. (12.2.9.9)	Other financial services (including mobile money) (12.2.9.9.1)	0.074	17	×	W, C, A, BA, UE
Personal care,	Personal care (13.1)	Electric appliances for per-	Electric appliances for personal	Electric appliances for personal	0.022	15	9	W, C, E, A, N, UW
social					1	010		
protection and miscellaneous		Uther appliances, articles and products for personal	Uther appliances, articles and products for personal care	10116t rolls (13.1.2.0.0)	0.16	340	43	W, C, GA, V, E, A, BA, N, UE, UW
goods and		care (13.1.2)	(13.1.2.0)	Sanitary pad (tampon)	0.196	229	39	W, C, GA, V, E, A,
services (13)				(13.1.2.0.1)				BA, N, UE, UW
Continued on next	tpage							

Division	Group (COICOP03)	Class (COICOP04)	Subclass (COICOP05)	Item (COICOP06)	Weight	z	z	Collected in*
(COICOP02)					•	prices	markets	
Personal care, social	Personal care (13.1) (cont.)	Other appliances, articles and products for personal	Other appliances, articles and products for personal care	Baby diapers and wipes (13.1.2.0.2)	0.024	19	9	W, V, A
protection and miscellaneous		care (13.1.2) (cont.)	(13.1.2.0) (cont.)	Bathing/toilet soap (13.1.2.0.3)	0.521	685	43	W, C, GA, V, E, A, BA, N, UE, UW
goods and services (13)				Skin powder (talcum) (13.1.2.0.4)	0.035	167	37	W, C, GA, V, E, A, BA. N. UE. UW
(cont.)				Disposable razor (13.1.2.0.5)	0.03	226	40	W, C, GA, V, E, A, BA, N, UE, UW
				Body lotion/cream (13.1.2.0.6)	0.199	164	40	W, C, GA, V, E, A, BA, N, UE, UW
				Deodorant (13.1.2.0.7)	0.104	268	37	W, C, GA, V, E, A, BA, N, UE, UW
				Toothpaste (13.1.2.0.8)	0.282	645	43	W, C, GA, V, E, A, BA, N, UE, UW
				Leather wallet (13.1.2.0.9)	0.005	ъ	4	W, C, A, N
		Hairdressing salons and personal grooming	Hairdressing (13.1.3.1)	Lady hairdressing (13.1.3.1.1)	0.489	551	42	W, C, GA, V, E, A, BA, N, UE, UW
		establishments (13.1.3)		Men's haircut (13.1.3.1.2)	0.162	122	38	W, C, GA, V, E, A, BA, N, UE, UW
				Mesh (human/synthetic) (13.1.3.1.3)	0.092	167	31	W, C, V, E, A, BA, N, UE, UW
	Other personal effects	Jewellery and watches	Jewellery and watches (13.2.1.1)	Jewellery (13.2.1.1.1)	0.016	6	4	W, V, A, UW
	(13.2)	(13.2.1)	•	Watches (13.2.1.1.2)	0.026	45	11	W, C, A, BA, N, UW
		Devotional articles and arti- cles for religious and ritual celebrations (13.2.2)	Devotional articles and articles for religious and ritual celebrations (13.2.2.0)	Printing of picture (13.2.2.0.1)	0.003	23	6	W, E, A, BA, N, UE
		Other personal effects n.e.c. (13.2.9)	Travel goods and articles for babies and other personal effects n.e.c. (13.2.9.1)	Other personal effects (13.2.9.1.2)	0.028	98	24	W, C, GA, V, E, A, BA, N, UE, UW
	Other services (13.9)	Other services (13.9.0)	Other services n.e.c. (13.9.0.9)	Other services n.e.c. (13.9.0.9.2)	0.08	175	29	W, C, GA, V, E, A, BA, N, UE, UW

Table A.3 Table summarizing the regional weight for the Items. "N" indicates the number of prices collected every month. $\frac{1}{2}$ indicates the weight mean of the weight, calculated as: $\frac{Nurban prices Weight_Urban+Nrural prices Weight_rural}{N}$

Ntotal prices

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
-	Imported rice (01.1.1.1.2)	N = 68	N = 87	N = 100	N = 65	N = 52	N = 68	N = 92	N = 51	N = 41	N = 48
		ata = 0.1811	&† å= 0.1900	<u>ൂ†</u> å= 0.6239	&[†]å= 0.0507	<u> ≰†</u> 3= 0.2265	<u> ≰†</u> a= 0.3569	<u> ≰†</u> å= 0.1095	<u> </u> ⊈† <u>a</u> = 0.0273	&⁺ å= 0.0117	ata 0.0108
2	Guinea corn/sorghum	N = 13	N = 6	N = 12	N = 13	N = 5	N = 12	N = 23	N = 23	N = 21	N = 20
	(01.1.1.3)	± ¹ a = 0.0006	a ^t a= 0.0003	<u>a†a</u> = 0.0011	±ła= 0.0005	<u> </u>	&⁺ å= 0.0014	<u> ≵†</u> å= 0.0001	<u>a</u> †₄= 0.0069	<u> </u>	a ^t a= 0.0057
ŝ	Millet (01.1.1.1.5)	N = 6	N = 10	N = 17		N = 10	N = 16	N = 3	N = 14	N = 12	N = 3
		<u> </u>	ata 0.0002	<u>ൂ†</u> 3= 0.0016		<u> </u>	a ^t a= 0.0009	<u> ≰†</u> å= 0.0001	<u> </u> ≰†±= 0.0062	<u>a</u> ta= 0.0094	ata 0.0194
4	Maize (01.1.1.1.6)	N = 17	N = 16	N = 15	N = 12	N = 16	N = 11	N = 22	N = 24	N = 21	N = 21
		a⁺a = 0.0187	⊉† å= 0.0221	a∱a= 0.0609	<u> ≰†</u> a= 0.0747	&⁺ å= 0.0223	a ^t a= 0.0150	∦ that ± 0.0308	∡⁺ å= 0.0666	∦ 4= 0.0265	ata 0.0304
ъ	Local rice (01.1.1.1.9)	N = 23	N = 6	N = 6	N = 11	N = 6	N = 25	N = 46	N = 15	N = 23	N = 3
		<u> ≰†</u> å= 0.0306	ata = 0.0548	a∱a= 0.1104	<u> ≰†</u> a= 0.0563	&⁺ å= 0.0177	ata 0.0659	&⁺ å= 0.0327	a∱a= 0.0860	&⁺ å= 0.0203	ata = 0.0212
9	Wheat flour (01.1.1.2.1)	N = 8	N = 15	N = 8	N = 4	N = 5		N = 6	N = 4	N = 4	N = 1
		<u> </u>	ata 0.0021	<u>ൂ†</u> å= 0.0102	<u> ≰†</u> 3= 0.0011	<u> </u>		<u> ≰†</u> å= 0.0014	<u>ൂ†</u> å= 0.0013	&⁺ å= 0.0003	ata = 0.0024
~	Corn dough/corn flour	N = 13	N = 16	N = 15	N = 6	N = 20	N = 14	N = 20	N = 13	N = 11	N = 10
	(01.1.1.2.6)	<u></u> ≰†a= 0.0271	<u> ≰†</u> å= 0.0593	<u>a†a</u> = 0.1787	&⁺å= 0.0275	<u> </u>	<u> </u>	<u> ≰†</u> å= 0.0196	<u> ≵†</u> å= 0.0061	<u> </u>	<u> ≰†</u> a= 0.0046
∞	Bread (01.1.1.3.1)	N = 42	N = 20	N = 10	N = 18	N = 21	N = 48	N = 44	N = 20	N = 34	N = 17
		<u>a†a</u> = 0.1158	≵† å= 0.1026	å†å= 0.5613	<u> ≰†</u> å= 0.0525	å⁺å= 0.1331	<u></u> ≰†å= 0.2145	≵[†]å= 0.0602	<u>a†</u> a= 0.0681	<u></u> ⊈†å= 0.0140	<u>≰†</u> a= 0.0200
6	Biscuit (01.1.1.3.9)	N = 100	N = 62	N = 71	N = 84	N = 83	N = 51	N = 97	N = 55	N = 83	N = 42
		<u> </u>	ata = 0.0221	<u>a†</u> a= 0.1200	<u> </u>	<u> </u> ⊈†±= 0.0187	å⁺å = 0.0381	<u> ≰†</u> å= 0.0081	<u>a†a</u> = 0.0077	<u> </u>	<u>a†a</u> = 0.0012
10	Other breakfast cereal	N = 37	N = 31	N = 45	N = 26	N = 22	N = 47	N = 39	N = 26	N = 21	N = 14
	(01.1.1.4.0)	ata = 0.0034	±ta= 0.0087	<u> &†</u> å= 0.0333	<u> </u>	<u> </u>	±ta= 0.0178	<u> </u>	<u> </u>	<u>a</u> †a= 0.0006	<u> </u>
11	Instant noodles/pasta	N = 54	N = 34	N = 61	N = 28	N = 43	N = 72	N = 46	N = 45	N = 24	N = 20
	(01.1.1.5.0)	<u> ≰†</u> å= 0.0034	a†a= 0.0091	a∱a= 0.0531	<u> ≰†</u> a= 0.0043	∡⁺ å= 0.0087	a ^t a= 0.0093	&⁺ å= 0.0032	a∱a= 0.0026	&⁺ å= 0.0010	ata = 0.0003
12	Live poultry (01.1.2.1.4)	N = 9	N = 12	N = 11	N = 16	N = 3	N = 19	N = 21	N = 11	N = 24	N = 22
		⊉⁺ å= 0.0086	&∱å = 0.0102	a†a= 0.1123	&⁺ å= 0.0257	&∱ å= 0.0322	&⁺ å= 0.0762	∦ å= 0.0116	ઢ⁺ å= 0.0294	<u> ≰†</u> å= 0.0061	<u>a</u> †a= 0.0066
13	Snail (01.1.2.1.9)	N = 12	N = 4	N = 7		N = 4	N = 5	N = 4			
		⊉⁺ å= 0.0070	a†a= 0.0007	a†a= 0.0060		∦ the 0.0010	a†a= 0.0017	∦ the 0.0010			
14	Beef (01.1.2.2.1)	N = 33	N = 25	N = 16	N = 9	N = 11	N = 33	N = 44	N = 25	N = 27	N = 14
		<i>⊾</i> †₄= 0.0586	<u> ≰†</u> å= 0.0602	a⁺a = 0.2157	<i>⊾</i> †∆= 0.0321	<u> ≰†</u> å= 0.0930	<u> ≰†</u> å= 0.2129	<u> ≰†</u> å= 0.1002	<u></u> ≰†å= 0.0549	<u> ≰†</u> å= 0.0106	<u> ≰†</u> a= 0.0144
15	Pork (01.1.2.2.2)	N = 13	N = 3	N = 5		N = 3	N = 4	N = 8	N = 1	N = 13	
_		<u> </u>	ata 0.0009	<u>a†a</u> = 0.0111		<u> </u>	<u> </u>	&⁺ å= 0.0010	<u> </u>	<u>ൂ†</u> å= 0.0006	
16	Goat meat (01.1.2.2.3)	N = 20	N = 10	N = 11	N = 3	N = 2	N = 16	N = 35	N = 6	N = 24	N = 2
		<u> ≰†å</u> = 0.0056	<u> ≰†</u> å= 0.0127	<u> ≰†</u> a= 0.0611	<u> ≰†å</u> = 0.0050	<u> </u>	<u> ≰†</u> å= 0.0215	<u> ≰†</u> å= 0.0076	&[†]a = 0.0105	<u> </u>	<u> ≰†</u> a= 0.0011
17	Chicken (01.1.2.2.4)	N = 34	N = 12	N = 19	N = 24	N = 17	N = 28	N = 44	N = 7	N = 19	N = 4
_		<u> ≰†</u> a= 0.0611	<u> ≰†</u> å= 0.0436	a†a= 0.2899	<u> ≰†</u> a= 0.0408	<u> ≰†</u> å= 0.0526	<u> ≰†</u> å= 0.1037	<u> ≰†</u> å= 0.0614	<u> </u>	<u> ≰†</u> å= 0.0003	<u> ≰†</u> a= 0.0025
18	Dog meat (01.1.2.3.3)									N = 3	
										<u> </u>	
19	Bush meat (01.1.2.3.9)	N = 1		N = 4		N = 3	N = 3				
		<u> ⊾†</u> a= 0.0066		ઢ⁺å = 0.0092		<u> </u>	&⁺ å= 0.0138				
20	Sausage (01.1.2.5.1)	N = 1			N = 5	N = 2	N = 9			N = 1	N = 1
		± ¹ ± = 0.0000			<u></u> ≰†a= 0.0012	<u>a†a</u> = 0.0001	± [†] å= 0.0001			± ¹ å= 0.0000	± ¹ a= 0.0000
Cont	tinued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
21	Corned heef (01.1.2.5.2)	N = 37	N = 27	N = 58	N = 16	N = 17	N = 56	N = 30	N = 18	N = 15	N = 6
		a [†] a = 0.0012	ata = 0.0015	<u>a†a</u> = 0.0219	a ^t å= 0.0011	ata 0.0014	<u> </u> ⊈†å= 0.0056	<u></u> ⊈†a= 0.0002	<u></u> ≰†å= 0.0002	ata 0.0000	a ^t a= 0.0000
22	Tilapia (01.1.3.1.1)	N = 1		N = 6		N = 1	N = 3	N = 2			N = 1
		å [†] å= 0.0112		<u>ൂ†</u> å= 0.0376		<u> ≰†</u> å= 0.0728	<u> ≰†</u> å= 0.0078	<u> </u> ≰†≛= 0.0042			å ^t å= 0.0007
23	Fish (sea) (01.1.3.1.2)	N = 12	N = 1	N = 5	N = 6	N = 16	N = 2	N = 14	N = 2	N = 1	N = 1
		<u> </u>	<u> </u>	<u>ൂ†</u> å= 0.3309	<u>a</u> †a= 0.0709	<u> </u>	<u> ≰†</u> a= 0.1477	<u> ≰†</u> å= 0.0400	å⁺å= 0.0318	<u> </u>	<u>a†a</u> = 0.0098
24	Smoked herrings	N = 18	N = 8	N = 8	N = 11	N = 25	N = 18	N = 18	N = 10	N = 13	N = 8
	(01.1.3.2.1)	<u> </u>	<u> ≰†</u> å= 0.0797	<u> ≰†</u> å= 0.4033	<u> ≰†</u> a= 0.0543	<u> ≰†</u> å= 0.1652	<u> ≰†</u> ≴= 0.2434	<u>ઢ†</u> å= 0.0849	₄¹å= 0.0338	<u> ≰†</u> å= 0.0276	<u>a†a</u> = 0.0071
25	Fish (river) (01.1.3.2.2)	N = 12	N = 10	N = 11	N = 13	N = 4	N = 12	N = 17	N = 11	N = 4	N = 4
		<u> ≰†</u> a= 0.0677	ઢ⁺ å= 0.0365	a†a= 0.3199	&[†]å = 0.1110	&⁺ å= 0.1119	ઢ⁺ å= 0.1584	<u>≰†</u> å= 0.1216	a⁺a = 0.0388	<u>ઢ⁺</u> å= 0.0037	<u> ≰†</u> å= 0.0043
26	Dried fish -	N = 23	N = 22	N = 11	N = 18	N = 11	N = 17	N = 26	N = 7	N = 5	N = 4
	koobi/momoni	<u></u> ⊈†å= 0.0230	<u></u> ⊈†∆= 0.0331	<u>⊾†</u> a= 0.0484	<u>a</u> †a= 0.0106	<u> </u>	<u> </u>	<u> </u>	<u>ઢ†</u> å= 0.0002	<u> </u>	<u>a</u> †a= 0.0003
	(01.1.3.2.9)										
27	Tuna in vegetable oil	N = 26	N = 22	N = 20	N = 14	N = 20	N = 21	N = 21	N = 11	N = 13	N = 18
	(01.1.3.3.1)	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> ≰†</u> å= 0.0195	<u> ≰†</u> a= 0.0191	<u> ≰†</u> å= 0.0075	<u> </u>	a⁺a = 0.0011	<u> </u>
28	Mackerel tn tomato	N = 60	N = 43	N = 36	N = 26	N = 31	N = 63	N = 58	N = 50	N = 29	N = 18
	sauce (01.1.3.3.2)	a†a = 0.0068	ઢ⁺ å= 0.0054	&∱ å= 0.0224	&∱a= 0.0010	a†a= 0.0114	a†a= 0.0219	&∱ å= 0.0043	a ^t å= 0.0009	a†a= 0.0006	⊉∱a= 0.0001
29	Sardines in vegetable oil	N = 63	N = 46	N = 74	N = 59	N = 47	N = 65	N = 65	N = 43	N = 23	N = 14
	(01.1.3.3.4)	₫[†]å= 0.0065	<u></u> ⊈†å= 0.0059	<u> </u>	&[†]a = 0.0010	<u>a†a</u> = 0.0112	<u> </u> ⊈†±= 0.0234	<u> </u>	± ¹ ±= 0.0009	<u>a†a</u> = 0.0005	<u>a†a</u> = 0.0001
30	Fish fried (01.1.3.3.9)	N = 6			N = 2				N = 1		N = 1
		±±±±			<u></u> ≰†≵= 0.0135				<u></u> ⊈†å= 0.0049		<u>a†a</u> = 0.0003
31	Shrimps (01.1.3.4.1)	N = 5			N = 1		N = 1	N = 1		N = 2	
		&[†]a = 0.0030			₫ ћ= 0.0014		<u> </u> ⊈†±= 0.0065	<u> </u>		<u> </u>	
32	Crab (01.1.3.4.2)	N = 6	N = 1		N = 3	N = 1	N = 1				
		å⁺å = 0.0030	<u></u> ⊈†å= 0.0019		<u></u> ⊈†å= 0.0015	<u>a†a</u> = 0.0019	<u> </u> ⊈†±= 0.0065				
33	Evaporated milk	N = 48	N = 51	N = 72	N = 63	N = 55	N = 94	N = 78	N = 47	N = 35	N = 45
	(01.1.4.3.1)	<u> </u>	±⁺å = 0.0187	<u></u> ≰†å= 0.1363	≵⁺ å= 0.0071	<u> ≰†</u> å= 0.0258	<u> ≰†</u> å= 0.0312	&[†]å = 0.0065	å⁺å= 0.0147	<u> </u>	<u> </u>
34	Powdered milk	N = 73	N = 59	N = 68	N = 45	N = 55	N = 80	N = 69	N = 30	N = 57	N = 38
	(01.1.4.3.2)	<u> ≰†</u> 3= 0.0092	<u> ≰†</u> 3= 0.0111	∦ å= 0.0581	å⁺å= 0.0035	å [†] å= 0.0133	a†a= 0.0186	<u> </u>	<u></u> ≰†å= 0.0049	a†a= 0.0022	<u>a</u> †a= 0.0008
35	lce cream (01.1.4.6.0)	N = 32	N = 20		N = 22	N = 15	N = 48	N = 31	N = 17	N = 23	N = 2
		a∱a = 0.0105	a⁺a = 0.0128		a ^t a= 0.0044	<u> </u> ⊈† <u>a</u> = 0.0144	a†a= 0.0134	∦ tata 1.0026	a⁺a = 0.0018	a†a= 0.0007	a∱a= 0.0017
36	Chicken eggs (01.1.4.8.1)	N = 14	N = 12	N = 5	N = 9	N = 10	N = 18	N = 15	N = 11	N = 12	N = 5
		⊉⁺å= 0.0196	ata 0.0256	<u>ൂ†</u> å= 0.1859	a ^t a= 0.0087	&⁺ å= 0.0367	ઢ⁺ å= 0.0444	∦ tata 0.0109	&⁺å= 0.0054	a†a= 0.0018	⊉[†]å = 0.0015
37	Sunflower cooking oil	N = 1		N = 18			N = 1				
	(01.1.5.1.1)	<u> ≰†</u> å= 0.0063		<u>≰†</u> å= 0.0018			<u> ≰†</u> å= 0.0075				
38	Palm oil (red oil)	N = 19	N = 26	N = 10	N = 15	N = 16	N = 24	N = 25	N = 12	N = 16	N = 10
	(01.1.5.1.2)	&∱ \$= 0.0070	ઢ⁺ å= 0.0142	&⁺ å= 0.0282	a ^t a= 0.0108	a†a= 0.0076	&[†]a = 0.0110	ઢ⁺ å= 0.0046	&⁺å= 0.0088	a†a= 0.0020	&∱a= 0.0023
39	Groundnut oil				N = 7	N = 1	N = 3	N = 1	N = 7	N = 6	N = 5
	(01.1.5.1.5)				&⁺ å= 0.0057	<u> ≰†</u> å= 0.0070	<u> ≰†</u> å= 0.0067	&∱ å= 0.0023	&⁺ å= 0.0045	<u>a†a</u> = 0.0016	<u> ≰†</u> å= 0.0012
40	Coconut oil (01.1.5.1.6)	N = 7	N = 9	N = 8	N = 7	N = 7	N = 2			N = 1	
		&∱ a= 0.0055	&⁺ å= 0.0070	≰†å = 0.0133	&⁺ å= 0.0057	<u> ≰†</u> å= 0.0072	&∱ å= 0.0062			<u>a†a</u> = 0.0006	
41	Vegetable oil (01.1.5.1.9)	N = 20	N = 14	N = 25	N = 14	N = 21	N = 29	N = 16	N = 11	N = 12	N = 12
		<u> </u>	a⁺a = 0.0538	<u>≰†</u> å= 0.1629	<u>≰†</u> a= 0.0292	<u> ≰†</u> å= 0.0577	<u>≰†</u> å= 0.0851	<u> ≰†</u> å= 0.0365	a⁺a = 0.0541	<u> ≰†</u> å= 0.0140	<u> ≰†</u> å= 0.0134
42	Margarine (01.1.5.3.0)	N = 17	N = 15	N = 19	N = 11	N = 18	N = 21	N = 19	N = 15	N = 12	N = 10
		&[†]å = 0.0035	å⁺å = 0.0071	å⁺å= 0.0147	≵[†]å= 0.0053	&[†]å = 0.0075	å⁺å= 0.0063	a†a= 0.0039	å⁺å= 0.0044	å⁺å = 0.0011	± [†] ±= 0.0011
Cont	inued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
43	Avocado pear (01.1.6.1.1)	N = 6	N = 2	N = 2	N = 3		N = 6	N = 1		N = 2	N = 1
		å⁺å = 0.0016	<u></u> ⊈†å= 0.0016	<u> </u>	<u> </u>		<u> </u>	<u> </u>		<u> </u>	<u>a</u> †a= 0.0001
44	Banana (01.1.6.1.2)	N = 9	N = 6	N = 8	N = 10	N = 6	N = 15	N = 11	N = 9	N = 7	N = 3
		$x^{h} = 0.0071$	<u> </u>	$x^{h} = 0.1109$	<u>ઢ⁺å</u> = 0.0073	<u>ൂ†</u> å= 0.0091	<u> </u>	<u></u> ⊈†3= 0.0021	<u>a</u> †a= 0.0026	<u> </u>	<u>a</u> †a= 0.0001
45	Mango (01.1.6.1.5)	N = 6 ++-0.0016	N = 3	N = 8	N = 1	N = 4 ++- 0 0011	N = 6		N = 2	N = 11	
46	Pawpaw (01.1.6.1.6)	≰a − 0.0010 N = 5	©™ – 0.0010 N = 4	&&− 0.0237 N = 5	CTOO.O –®.®	&&− 0.0041 N = 3	©.0.0010 N = 5	N = 3	&&= 0.0023 N = 2		
	-	å⁺å = 0.0016	å⁺å = 0.0025	≵† å= 0.0297		a⁺a = 0.0023	<u> ≰†</u> å= 0.0041	å⁺å= 0.0011	å⁺å= 0.0010		
47	Pineapple (01.1.6.1.7)	N = 9	N = 10	N = 9	N = 10	N = 8	N = 15	N = 10	N = 3	N = 6	N = 3
0		<u>ئ</u> ائھ= 0.0015	±ta= 0.0027	±ًtå= 0.0297 21	± ^t å= 0.0015 کن ع	±†å= 0.0034 کړ ع	⊈ [†] å= 0.0034	⊈ [†] å= 0.0009	≰†±= 0.0015 ۲. г	± ¹ 4= 0.0005	a⁺a = 0.0001
4 8		N = 6			N = Z	N = 2	N = 9	N = /	N = 5	N = 3	
49	(01.1.0.1.0) Lime (01.1.6.2.2)	©10000 = 0.0000	∿≜= 0.0000 N = 4	∿&= 0.000.0 N = 7	©™= 0.00015 N = 1	™±00.00±1 N = 7	&&= 0.0021 N = 1	&&= 0.0010 N = 1	©	0T00.0	N = 3
	-	a †a= 0.0010	a †a= 0.0025	a ^t a= 0.0086	å†å= 0.0013	a∱a= 0.0022	<u> ≰†</u> å= 0.0052	a†a= 0.0016	⊉[†]å= 0.0005		± ¹ a= 0.0000
50	Oranges (fruit)	N = 12	N = 7	N = 12	N = 8	N = 6	N = 19	N = 16	N = 8	N = 11	N = 8
	(01.1.6.2.3)	å⁺å = 0.0041	a⁺a = 0.0076	a⁺a = 0.0267	₫¹å= 0.0032	å⁺å= 0.0063	<u> ≰†å</u> = 0.0035	₫¹ \$= 0.0011	å⁺å= 0.0018	a¹a 0.0006	å⁺å= 0.0002
51	Apples (foreign)	N = 6	N = 6	N = 4	N = 1	N = 5	N = 13	N = 9	N = 3	N = 3	N = 2
	(01.1.6.3.1)	ata = 0.0016	ઢ⁺ å= 0.0039	<u> ≰†</u> a= 0.0297	<u>ઢ†</u> å= 0.0015	ata = 0.0035	<u>a†a</u> = 0.0037	&⁺ å= 0.0013	<u> ≰†</u> a= 0.0020	&⁺ å= 0.0016	<u> ≰†</u> å= 0.0001
52	Sweet apple (01.1.6.3.9)	N = 2					N = 2				
1		™= 0.0016 N = 4					ढ∿å= 0.0061 № - 1				
50	(T.C.O.T.LU) sadpio	N = 4					N = 1	N = 2 +h- 0 0011			
54	Watermelon (01-1-6-5-4)	©TOO.O – №	и 11 2		0 = N	л П	T00000 –®®	TTOO.O –®.®	N = 6	8 - N	и П
† 7		* [†] *= 0 0035	N = J 10000		N = 2 #ħ= 0 0016	τ π ⁴ π = 0 0064	N = 11 #h= 0 0061	N = 4 #ħ= 0 0017	x [†] x = 0 0010	N = 0 ##= 0 0013	* [†] *= 0 0007
55	Palm fruits (01.1.6.5.9)	N = 17	N = 15	N = 11	N = 10	N = 9	N = 16	N = 17	N = 8	N = 12	N = 3
		⊉¹å= 0.0084	<u></u> ⊈†å= 0.0163	<u>a†a</u> = 0.0311	å [†] å= 0.0096	<u></u> ⊈†å= 0.0131	<u> ≰†</u> å= 0.0053	<u> </u>	å⁺å= 0.0025	<u>a†a</u> = 0.0004	± [†] å= 0.0001
56	Cashew (01.1.6.8.2)	N = 2 +-0,0001									
57	Groundhuite (shelled)	** 0.0001 N = 18	N = 11	N = 15	8 = N	N = 12	N = 13	N = 17	N = 7	N = 12	N = 2
ĥ	(01.1.6.8.8)	N = 10 &∱a= 0.0013	N = 11 ≢∱a= 0.0035	t = 13 ≰ta= 0.0063	м = 9 ∡†а= 0.0016	N = 12 ∡∱a= 0.0042	N = 13 ≰ta= 0.0032	1. – 1. ∡†a – 0.0009	×±*= 0.0019	N = 12 ∡∱a= 0.0012	N = 2 ∡∱a= 0.0013
58	Cabbage (01.1.7.1.2)					N = 3					
						a⁺a = 0.0018					
59	Cocoyam leaves	N = 15	N = 15	N = 16	N = 6	N = 9	N = 20	N = 17	N = 11	N = 11	N = 3
	(kontomire)/alefu (01.1.7.1.9)	ata = 0.0027	≰∱a = 0.0072	ઢ⁺ å= 0.0383	a ∱a= 0.0056	≰†a= 0.0125	<u>ઢ†</u> å= 0.0139	ઢ⁺ å= 0.0028	<u>⊾†</u> å= 0.0091	≰∿ = 0.0054	<u>⊀†å</u> = 0.0007
60	Green pepper (fresh)	N = 24	N = 20	N = 11	N = 12	N = 31	N = 34	N = 26	N = 16	N = 12	N = 11
	(01.1.7.2.1)	<u></u> ⊈†å= 0.0081	<u> ≵†</u> å= 0.0095	<u> ∦1</u> = 0.0249	<u> </u>	&⁺å= 0.0114	<u> ≰†</u> 3= 0.0149	<u> </u>	<u>a</u> †a= 0.0069	<u> </u>	<u>a†a</u> = 0.0017
61	Garden eggs (01.1.7.2.3)	N = 17	N = 16	N = 13	N = 10	N = 17	N = 22	N = 20	N = 13	N = 11	N = 11
		a¹a = 0.0235	a ¹a = 0.0287	<u> </u>	<u> </u>	<u>a†a</u> = 0.0382	<u> </u>	<u></u> ≰†å= 0.0031	<u>a</u> †a= 0.0026	a⁺a = 0.0011	<u>a</u> †a= 0.0018
62	Tomatoes (fresh)	N = 17	N = 16	N = 16	N = 8	N = 23	N = 25	N = 21	N = 13	N = 12	N = 11
	(01.1.7.2.4)	a †a= 0.0560	a ^t a= 0.0775	⊾† a= 0.3379	ઢ⁺ å= 0.0482	ata 0.1085	ઢ⁺ å= 0.1557	atta 0.0447	ata = 0.0340	ata 0.0137	ata = 0.0230
63	Okro (fresh) (01.1.7.2.6)	N = 17	N = 16	N = 10	N = 9	N = 20	N = 20	N = 21	N = 11	N = 12	N = 8
ţ		#指= 0.0105 21 30	±∱t = 0.0195 د. د.	≰†a 0.1044 کړ ع	±†a= 0.0224 ۲: م	±ta= 0.0320	±1±= 0.0285 ۲: 30	±†a= 0.0202	#指= 0.0263	±∱a= 0.0073 مناقع	±ta= 0.0165
64	Urlea pepper (rea)	N = 20	N = 20		N = 14	N = 24	N = 19	N = 20	N = 21		N = /
	(01.1.7.2.7)	&™ = 0.0314	ൂൂ= 0.0369	۲±ه= 0.12/2	±13= 0.0∠0b	a∿2= 0.0∠06	a∿a= 0.05∠b	±1± 0.01/9	±4±0.0165	4410.0 =≵*	&∱ \$= 0.0024
Cont	inued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Ч	Reans (01 1 7 3 1)	N = 19	N = 12	N = 18	N = 11	N = 19	N = 19	N = 18	N = 14	N = 12	5 II N
)		±ta= 0.0025	±ta= 0.0043	±ta= 0.0176	±¹a= 0.0150	± ¹ a= 0.0060	a†a= 0.0051	±ta= 0.0070	±ta= 0.0139	± ^t å= 0.0053	±ta= 0.0046
66	Bambara beans		N = 4	N = 10					N = 3	N = 2	
0	(01.1.7.3.2)		± ¹ ±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±	ata= 0.0038					a†a= 0.0033	± ¹ å= 0.0020	
67	Carrot (01.1.7.4.1)	N = 13	N = 8	N = 2	N = 1	N = 12	N = 9	N = 7	N = 9	N = 4	N = 4
		$x^{t_{a}} = 0.0018$	<u> ≰†</u> å= 0.0028	<u> </u>	<u> </u>	<u> </u>	<u></u> ≰†a= 0.0087	<u> </u>	<u> </u> ⊈†3= 0.0046	<u> </u>	± ^t a= 0.0017
68	Garlic (01.1.7.4.2)	N = 17	N = 14	N = 10	N = 6	N = 15	N = 23	N = 17	N = 12	N = 9	N = 8
		&†å = 0.0028	&⁺ å= 0.0039	&⁺ å= 0.0230	∡⁺ å= 0.0035	ઢ⁺ å= 0.0084	ઢ⁺ å= 0.0060	ઢ⁺ å= 0.0025	&∱ å= 0.0031	&[†]å = 0.0015	№[†] a= 0.0010
69	Onions (large)	N = 18	N = 16	N = 16	N = 10	N = 24	N = 21	N = 21	N = 12	N = 12	N = 11
	(01.1.7.4.3)	<u></u> ⊈† <u>a</u> = 0.0637	a ∱ a = 0.0616	ata 0.1779	a⁺a = 0.0373	ઢ⁺ å= 0.0682	ઢ⁺ å= 0.1076	<u> ≰†</u> å= 0.0455	&∱ \$= 0.0320	&⁺ å= 0.0093	<u> ≰†å</u> = 0.0105
70	Cassava (fresh)	N = 18	N = 15	N = 10	N = 9	N = 17	N = 15	N = 17	N = 5	N = 9	N = 1
	(01.1.7.5.3)	&†å = 0.0388	ata = 0.0453	&⁺ å= 0.1057	&⁺å= 0.0199	ઢ⁺ å= 0.0668	ઢ⁺ å= 0.0659	∦ that = 0.0289	&∱ å= 0.0044	&[†]å = 0.0005	± ^t å= 0.0001
71	Yam (01.1.7.5.4)	N = 28	N = 17	N = 14	N = 12	N = 18	N = 33	N = 20	N = 21	N = 11	N = 9
		<u></u> ⊈† <u>a</u> = 0.0360	a⁺a = 0.0462	a⁺a = 0.2923	a⁺a = 0.0601	&⁺ å= 0.1039	<u>≰†</u> å= 0.1698	<u>≰†</u> å= 0.0801	₫† a= 0.0283	<u> ≰†</u> å= 0.0062	<u> ≰†</u> å= 0.0232
72	Cocoyam (01.1.7.5.6)	N = 12	N = 4	N = 4	N = 5	N = 9	N = 12	N = 9		N = 6	
		<u> </u> ⊈† <u>a</u> = 0.0043	⊉⁺ å= 0.0055	&⁺ å= 0.0316	ઢ⁺å= 0.0036	&⁺ å= 0.0204	&∱ å= 0.0107	&⁺ å= 0.0076		a ^t a= 0.0004	
73	Plantain (green)	N = 18	N = 15	N = 11	N = 9	N = 20	N = 21	N = 18	N = 5	N = 8	N = 3
	(01.1.7.5.7)	<u></u> ⊈† <u>a</u> = 0.0425	⊉⁺ å= 0.0536	a∿a = 0.1706	a⁺a = 0.0126	a†a= 0.0989	<u></u> ≰†å= 0.1198	∦ that 0.0285	a∱a= 0.0006	a [†] a= 0.0006	a ^t a= 0.0005
74	Cassava - kokonte/dough	N = 17	N = 29	N = 18	N = 18	N = 39	N = 21	N = 36	N = 18	N = 17	N = 10
	(01.1.7.9.1)	<u> ≰†</u> å= 0.0236	ata 0.0449	&⁺ å= 0.1241	ઢ⁺å= 0.0294	&⁺ å= 0.0465	ઢ⁺ å= 0.0385	&⁺å = 0.0152	&∱ \$= 0.0310	a ^t a= 0.0036	⊉[†]å= 0.0028
75	Gari (01.1.7.9.8)	N = 22	N = 20	N = 13	N = 10	N = 22	N = 18	N = 21	N = 16	N = 16	N = 9
		&† å= 0.0101	a ∱ a = 0.0200	ata 0.0560	&⁺å= 0.0241	&∱å = 0.0292	&⁺ å= 0.0184	&⁺ å= 0.0064	a⁺a = 0.0139	ata = 0.0015	ata 0.0017
76	Tomato paste (01.1.7.9.9)	N = 62	N = 51	N = 43	N = 37	N = 41	N = 64	N = 51	N = 45	N = 36	N = 18
		<u> </u> ⊈† <u>a</u> = 0.0442	ઢ⁺ å= 0.0567	ata = 0.1290	∦ tata 1.0296	<u> ≰†</u> å= 0.0591	<u> ≰†</u> å= 0.0660	<u> ≰†</u> å= 0.0450	<u></u> ≰†t= 0.0244	<u> ≰†</u> å= 0.0070	<u> ≰†å</u> = 0.0067
77	Sugar (01.1.8.1.1)	N = 31	N = 30	N = 36	N = 20	N = 26	N = 50	N = 29	N = 17	N = 22	N = 20
		a†a= 0.0127	⊉⁺ å= 0.0135	ata 0.0443	a⁺a = 0.0145	&⁺ å= 0.0152	<u></u> ≰† <u>a</u> = 0.0145	ata 0.0109	≰∱ a= 0.0306	&⁺ å= 0.0040	a ^t a= 0.0080
78	Honey (01.1.8.3.1)	N = 3	N = 4	N = 3	N = 1	N = 3	N = 14	N = 2	N = 4	N = 4	
		<u> ≰†</u> å= 0.0029	&∱ a= 0.0033	<u> ≰†</u> a= 0.0127	<u> ≰†</u> a= 0.0041	<u> ≰†</u> å= 0.0039	<u> ≰†</u> å= 0.0051	<u>ઢ†</u> å= 0.0029	<u>a†a</u> = 0.0093	<u>a†a</u> = 0.0009	
79	Sheabutter (01.1.8.4.0)	N = 8	N = 3		N = 2	N = 6	N = 15	N = 11	N = 11	N = 12	N = 5
		ઢ⁺ å= 0.0053	ata 0.0070		ata 0.0057	a ^t a= 0.0076	<u>⊾†</u> 1= 0.0069	&∱å = 0.0023	ઢ⁺ å= 0.0050	ata = 0.0011	ata= 0.0012
80	Groundnuts paste						N = 6				
0		0 - 14	1 - 10 - 10		07 - 14	N - 1	∆'∆= U.U∠04 N = 10	07 - 12	- 14 - 14		
TO				N - T		ττ – Ν					
82	Milo/coroa powder	™ 35	**- U.O.O.L	&a− 0.0143 N = 68	▲ª= 0.0004 N = 31	©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©	©©= 0.0029 N = 58	™ = 40	≜≛− 0.0000 N = 30	™= 31	&&− 0.0003 N = 28
1	(01 1 8 5 3)	$x^{+}x = 0.0162$	$x^{+}x = 0.0348$	#ht = 0.0951	* [†] *= 0 0103	$x^{+}x = 0.0214$	#h= 0 0313	tt = 10 tt = 0 0124	x ^h s= 0 0041	* [†] *= 0 0022	##= 0 0075
83	(01 1 8 9 9)	N = 23	N = 35	N = 13	N = 29	N = 11	N = 35	N = 45	n = 26	N = 30	N = 18
2		ta = 0.0001	±th= 0.0007	ata= 0.0031	x [†] å= 0.0000	±± ≢∱å= 0.0006	k†å= 0.0016	≰†å= 0.0054	ata= 0.0002	ata 0.0000	atha = 0.0001
84	Kenkey with fried fish	0 = N	N = 15	N = 15	N = 13	N = 2	N = 18	N = 8	N = 10	N = 15	N = 9
	(01.1.9.1.2)	±ta= 0.0401	ata = 0.0426	ata = 0.2740	ata 0.0306	≵⁺å= 0.0568	&∱å = 0.2222	ata = 0.0488	≵∱ a= 0.0204	ata= 0.0072	ata= 0.0040
85	Cooked rice (01.1.9.1.3)	N = 7	N = 9	N = 17	N = 11	N = 1	N = 12	N = 14	N = 12	N = 14	N = 11
		å [†] å= 0.1184	&⁺ å= 0.1221	<u>a†a</u> = 0.9912	<u>≰†</u> å= 0.0848	<u> ≰†</u> å= 0.1580	ઢ⁺å= 0.4532	å⁺å = 0.1438	<u>ൂ†</u> 3= 0.0641	&⁺ å= 0.0189	å ^t å= 0.0101
86	Fried plantain and beans	N = 3	N = 2	N = 1	N = 3		N = 5	N = 3		N = 7	N = 1
	(01.1.9.1.4)	<u> </u>	<u> ≰†</u> å= 0.0578	<u> ≰†</u> å= 0.5011	<u> </u>		å†a= 0.2115	<u> </u>		<u> </u>	<u>a†a</u> = 0.0025
87	Fufu and soup	N = 7	N = 8	N = 7	N = 6	N = 1	N = 5	N = 8	N = 8	N = 9	N = 6
	(01.1.9.1.6)	&[†]å = 0.0407	ઢ⁺ å= 0.0420	&⁺å = 0.4176	ઢ⁺å= 0.0304	ઢ⁺ å= 0.0564	&⁺å = 0.1762	ઢ⁺å= 0.0505	<u></u> ≰†a= 0.0249	ઢ⁺ å= 0.0068	<u>ൂ†å</u> = 0.0039
Cont	inued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
88	Baby milk (01.1.9.2.1)	N = 2	N = 6		N = 4	N = 4	N = 14	N = 4			N = 1
		<u></u> ⊈†å= 0.0036	<u></u> ⊈†å= 0.0029		<u>a†a</u> = 0.0010	<u>a†a</u> = 0.0055	<u>a†a</u> = 0.0081	±ta= 0.0008			<u></u> ⊈†å= 0.0001
89	Baby food (01.1.9.2.2)	N = 31	N = 28	N = 72	N = 40	N = 32	N = 43	N = 38	N = 35	N = 46	N = 39
		<u>ઢ¹å</u> = 0.0095	a⁺a = 0.0034	å¹å= 0.0315	<u> ≰†</u> a= 0.0015	<u>a†</u> a= 0.0047	a†a= 0.0071	<u> ≰†</u> å= 0.0011	<u>a†a</u> = 0.0013	<u> </u>	<u> ≰†</u> å= 0.0005
06	lodated salt (01.1.9.3.1)	N = 22	N = 21	N = 28	N = 15	N = 18	N = 36	N = 18	N = 15	N = 12	N = 13
		ata = 0.0072	a∱a = 0.0077	a⁺a = 0.0105	ata= 0.0100	a†a= 0.0099	±ًtًa= 0.0070	±1± 0.0095	<u>≰†</u> å= 0.0181	a†a= 0.0057	≰†å= 0.0021
91	Vinegar (01.1.9.3.9)	N = 1	N = 8		N = 11		N = 3	N = 3	N = 7	N = 6	N = 2
ç	Coloror (cubac)	™= 0.0002 N = 21	Σ™= 0.0004 № – 3F		&™= U.UUU2 N = 36		™= 0.0033 N = 46	がま= U.UU3 / M = 2F	™= 0.0008	T.UUU.U = ₽12	≰∿a= 0.0001 N = 21
76	Spicies (cubes)	TS = N		00COO+++	N = 26	TZ = N	N = 40	N = 25	N = 30	N = 20	T2 = N
20	(U1.1.3.4.U) Ginger (N1 1 0 4 1)	≰∿a = 0.0009 N = 11	&∆= U.UU&U N = 12	&∿= U.U200 N = 1A	&∿a= 0.0112 N = 10	&∿a= 0.0154 N = 21	™a= 0.0120 N = 71	∆∿≛= U.UU/δ N = 15	&\å= 0.0227 N = 10	CoUU.0 = M P = N	≰∿= U.UU37 N = 7
ĥ		±1 = 1 ⊉1a = 0.0068	a†a= 0.0080	tv = ±+ &†å= 0.0277	k = 10 ≰†a= 0.0114	w = 21 ⊉ta= 0.0134	tv = 21 &†å= 0.0114	t = 10 ⊉∱å= 0.0078	tv = ±0 ≰†å= 0.0248	tr = ⊉∱a= 0.0072	a=) a†a= 0.0054
94	Fruit juice (01.2.1.0.0)	N = 72	N = 68	N = 70	N = 40	N = 28	N = 70	N = 91	N = 71	N = 56	N = 43
	•	± [†] ±= 0.0107	± ¹ a = 0.0078	₄¹ å= 0.0981	<u>a†a</u> = 0.0028	<u>a†a</u> = 0.0093	<u>a†a</u> = 0.0293	<u></u> ⊈†±= 0.0042	<u>a†a</u> = 0.0030	<u> </u> ⊈†å= 0.0014	± [†] å= 0.0003
95	Coffee (01.2.2.0.1)	N = 36	N = 27	N = 19	N = 24	N = 28	N = 46	N = 41	N = 28	N = 27	N = 17
		⊉⁺ å= 0.0029	ata 0.0041	ઢ⁺ å= 0.0249	∦ å= 0.0015	∦ å= 0.0065	a ^t å= 0.0090	a†a= 0.0019	ઢ⁺ å= 0.0055	&⁺ å= 0.0012	⊉[†]å = 0.0022
96	Tea bags (01.2.3.0.9)	N = 17	N = 15	N = 19	N = 11	N = 10	N = 23	N = 20	N = 15	N = 12	N = 12
		<u> ≰†</u> a= 0.0029	<u>≰†</u> 1 = 0.0040	a⁺a = 0.0237	<u> ≰†</u> å= 0.0012	a⁺a = 0.0068	<u>a</u> †± 0.0090	<u></u> ≰† <u>a</u> = 0.0017	<u>a†a</u> = 0.0060	<u>≰†</u> å= 0.0011	<u> ≰†</u> a= 0.0023
97	Country milk (01.2.4.0.0)	N = 3	N = 5		N = 4		N = 1		N = 1	N = 6	
		≵† å= 0.0011	ata = 0.0031		∦ the 0.0012		&⁺å = 0.0050		&⁺ å= 0.0004	≵† å= 0.0001	
98	Mineral water (bottle)	N = 27	N = 33	N = 48	N = 14	N = 17	N = 48	N = 29	N = 22	N = 21	N = 12
	(01.2.5.0.0)	⊉⁺ å= 0.0030	ata 0.0341	a⁺ a= 0.0456	∡⁺ å= 0.0013	a⁺a = 0.0032	ata = 0.0074	&∱ å= 0.0014	&∱ å= 0.0010	&⁺ å= 0.0007	⊉⁺ å= 0.0014
66	Mineral water (sachet)	N = 29	N = 5		N = 15	N = 11	N = 39	N = 13	N = 8	N = 18	N = 5
	(01.2.5.0.1)	⊉⁺ å= 0.0456	&[†]å = 0.0355		&∱ å= 0.0227	∦ å= 0.0529	∦ å= 0.1055	a†a = 0.0181	&[†]å = 0.0106	∦ that = 0.0029	⊉[†]å = 0.0010
100	Soft drinks (01.2.6.0.0)	N = 15	N = 25	N = 38	N = 10	N = 33	N = 35	N = 2	N = 23	N = 52	N = 1
		a∿a = 0.0237	&⁺ å= 0.0170	a⁺a = 0.0739	<u> ≰†</u> a= 0.0104	a⁺a = 0.0170	<u></u> ≰†å= 0.0448	<u> ≰†</u> å= 0.0153	<u>a†a</u> = 0.0161	<u>ઢ†</u> å= 0.0044	a ∱ a = 0.0010
101	Malt drinks (01.2.6.0.1)	N = 76	N = 47	N = 92	N = 81	N = 34	N = 92	N = 114	N = 79	N = 58	N = 43
		ઢ⁺ å= 0.0082	<u> ≰†</u> a= 0.0144	a⁺a = 0.0800	<u>a†a</u> = 0.0080	ઢ⁺å= 0.0156	å⁺å= 0.0138	<u> ≰†</u> å= 0.0092	<u>a†a</u> = 0.0066	<u>ઢ†</u> å= 0.0011	a⁺a = 0.0027
102	Energy drinks (01.2.6.0.2)						N = 3	N = 4		N = 6	N = 1
							ata 0.0006 ata	<u>a</u> †a= 0.0019		&⁺ å= 0.0001	ata 0.0000 ata
103	Non-alcoholic			N = 2					N = 1		
	champagne (01.2.6.0.3)	:	:	ata= 0.0021		:			<u> </u> ⊈ta= 0.0004		
104	Akpeteshie (02.1.1.0.1)	N = 9	N = 5		N = 9	N = 3	N = 12	N = 10	N = 11	N = 12	N = 1
1		±ta= 0.0748	±ta = 0.0946		±ta= 0.0826	±ta= 0.1386	<u></u> ≰†a= 0.1253	±ta= 0.0737	±ta= 0.0567	<u></u> ≰†a= 0.0641	±ta= 0.0202
CUI	BITTERS (02.1.1.0.2)	N = 18	N = 18	N = 14	N = 14	N = 10	N = 43	N = 14	N = 12	N = 16	N = 4
					8TTO.0 = 1.4	±≇= U.UU5∠	≰≇= U.UU/3	™= U.UU&U	23= 0.0020	™= 0.0003	£15 U.UU31
90 T	spirits (other) (U2.1.1.U.3)		N = 4	V = 19	N = 19	N = 5		N = 8	11 = N		T = N
107		TT= 0.0129	CULUU = T	±1= 0.0222		Σ™= 0.00/3 N = 7		TT= 0.003/		21 - 10 21 - 17	
/NT	GIN (U2.1.1.U.4)	OT = N	N = 13	N = 23	CT = N		07 = N	N = 14	0T = N	7T = N	N = 4
007		$x^{t_{a}} = 0.0131$	a†a= 0.0102	±ta= 0.0223	ata= 0.0080	<u>∎</u> †a= 0.0042	≰†a= 0.0063	±ta= 0.0037	ata= 0.0011	<u></u> ≰†å= 0.0005	±ta= 0.0016
108	Whisky (02.1.1.0.5)	N = 8	N = 1	N = 16	N = 12	N = 6	N=5	N = 11	N = /	N = 8	N = Z
		&⁺ å= 0.0139	ata 0.0056	ata = 0.0235	<u>ઢ⁺</u> å= 0.0073	a⁺a = 0.0031	ata = 0.0059	ઢ⁺ å= 0.0038	ata= 0.0009	&∱å = 0.0005	ata = 0.0007
109	Imported wine	N = 6	N = 5	N = 21	N = 11	N = 2	N = 2	N = 10	N = 6	N = 11	
,		ata = 0.0007	± ¹ 4 = 0.0006	±ًtًa= 0.1032	⊈ ¹ 1 ±0.0009	±ً†∎= 0.0052	ata= 0.0037	a†a= 0.0017	ata= 0.0000	a†a= 0.0000	
DIT	National beer (Star/Club)	N = 14	N = 13	N = 29	N = 18	N = 1/	N = 3.1	N = 15	N = 22	N = 18	N = 16
	(02.1.3.0.1)	ITT0.0 = IT	±11 = 0.0109	ITA= 0.108/	∦%= 0.0134	™ = 0.0112	¥11=0.0159	2800.0 =≇1	¥™= 0.0058	™ = 0.0144	ኔ⁺ኔ= 0.0244
Cont	inued on next page										

	+0.00	Whitehorn	Control	Grontor Acer	1/0/4-2	Eactorn	Achanti	Drong Ahofo	Northorn	Innor Fact	Innor Wort
				חבמובו ארתום	VOILA						appel west
111	Dark beer (02.1.3.0.2)	N = 11	N = 4	N = 7	N = 12	N = 11	N = 17	N = 14	N = 2	N = 12	N = 3
		a∿a = 0.0374	∦ å= 0.0159	a∱a= 0.0272	ata = 0.0240	a∱a= 0.0117	a∱a= 0.0422	a∱a= 0.0142	a∱a= 0.0100	a ∱ a = 0.0055	∦ 1 = 0.0135
112	Beer (imported)	N = 4	N = 5	N = 6	N = 7		N = 8		N = 1		
	(02.1.3.0.3)	ata 0.0048	a⁺a = 0.0023	∦ å= 0.0651	ata 0.0006		∦ å= 0.0019		⊉[†]å= 0.0067		
113	Traditional beer (pito)	N = 2	N = 1			N = 1	N = 12	N = 17	N = 10	N = 11	
	(02.1.9.0.1)	a†a= 0.0009	⊉⁺ å= 0.0005			&⁺ å= 0.0004	a⁺a = 0.0217	a†a= 0.0172	ata = 0.0822	&⁺ å= 0.1145	
114	Palm wine (02.1.9.0.2)	N = 1	N = 2		N = 3	N = 1	N = 1				
		a†a= 0.0077	⊉† å= 0.0015		∦ that 0.0026	&⁺ å= 0.0040	a∱t 0.0099				
115	Cigarettes (02.3.0.1.1)	N = 8	N = 7	N = 15	N = 17	N = 4	N = 12	N = 8	N = 10	N = 6	N = 7
		å⁺å = 0.0167	a ^t a= 0.0029	å⁺å= 0.0061	<u> </u> ⊈†1 = 0.0086	<u> ≰†</u> a= 0.0297	<u> </u>	å⁺å = 0.0122	<u></u> ≰†a= 0.0329	±ta= 0.0104	<u>a†a</u> = 0.0236
116	Kola nuts (02.4.0.0.1)	N = 7	N = 4		N = 10		N = 7	N = 12	N = 12	N = 12	N = 12
		ata 0.0006	⊉⁺ å= 0.0002		∦ 4 = 0.0008		∦ tata 1.0014	a†a= 0.0013	ata 0.0409	a ^t a= 0.0305	⊮¹a= 0.0293
117	Clothing materials (local)	N = 27	N = 21	N = 31	N = 58	N = 25	N = 31	N = 15	N = 13	N = 11	N = 7
	(03.1.1.0.1)	a†a= 0.0630	⊉⁺ å= 0.0532	a∱a= 0.1102	<u> ≰†</u> å= 0.0240	a⁺a = 0.0701	a∱a= 0.0347	a†a= 0.0376	ata 0.0406	a ^t a= 0.0090	a†a= 0.0172
118	Clothing materials	N = 35	N = 22	N = 18	N = 54	N = 20	N = 40	N = 26	N = 28	N = 18	N = 11
	(imported) (03.1.1.0.2)	a†a= 0.0217	a⁺a = 0.0225	ൂ†å= 0.1735	&⁺ å= 0.0321	ata 0.0403	∦ tata 1.0857	a†a= 0.0267	ઢ⁺ å= 0.0214	ata 0.0134	<u>⊮†</u> a= 0.0048
119	Kente (03.1.1.0.3)	N = 18	N = 16	N = 21	N = 14	N = 10	N = 7	N = 12	N = 2	N = 6	
		&† å= 0.0133	⊉†å= 0.0133	≰∱ a= 0.0767	∦ 1 = 0.0071	a⁺a = 0.0117	a∱a= 0.0202	a†a= 0.0081	⊉†å= 0.0051	ata 0.0012	
120	Men's t-Shirt (03.1.2.1.1)	N = 44	N = 36	N = 20	N = 42	N = 26	N = 60	N = 38	N = 36	N = 44	N = 21
		åtå= 0.0135	å⁺å = 0.0136	<u> </u>	<u> </u>	<u> ≰†</u> a= 0.0112	<u> ≰†</u> a= 0.0311	å [†] å= 0.0095	å⁺å= 0.0141	<u> </u>	<u> ≰†</u> å= 0.0015
121	Boy's shirt (03.1.2.1.2)	N = 13	N = 30	N = 2	N = 3		N = 12	N = 14	N = 9	N = 5	N = 2
		åt å= 0.0135	ata = 0.0128	<u> </u>	<u> </u>		<u> ≰†</u> a= 0.0316	<u>a†a</u> = 0.0094	±ta= 0.0096	<u> </u>	<u> </u>
122	Ready-made clothing	N = 15	N = 7	N = 5	N = 15	N = 6	N = 15	N = 16	N = 11	N = 16	N = 14
	men (jeans/khaki) (03.1.2.1.3)	å¹å = 0.0138	å⁺å = 0.0084	⊈¹å= 0.0676	å∱å= 0.0066	å⁺å= 0.0112	≰† ≢= 0.0229	a ^t a= 0.0090	å⁺å= 0.0132	ઢ⁺ 1 = 0.0035	<u>ઢ†</u> ኔ= 0.0026
123	Ready-made clothing	N = 4	N = 13	N = 8	N = 1	N = 6	N = 10	N = 7	N = 13	N = 11	N = 7
	men (trousers)	#th= 0.0133	<u>a†</u> a= 0.0114	±th= 0.0539	***= 0.0065	x ^t k= 0.0113	±th= 0.0258	atha 0.0094	#h= 0.0137	±th= 0.0032	atha= 0.0026
	(03.1.2.1.4)		-					-			
124	Ready-made clothing	N = 6	N = 9		N = 2		N = 7	N = 6	N = 4	N = 11	N = 1
-	bovs (03.1.2.1.5)	ata = 0.0135	ata = 0.0101		<u>a†a</u> = 0.0066		<u></u> ≰†±= 0.0378	±th= 0.0095	<u>a</u> ta= 0.0096	<u></u> ≰†a= 0.0032	±th= 0.0010
125	Underwear (male)	N = 14	N = 21	N = 2	N = 11	N = 2	N = 28	N = 13	N = 12	N = 21	N = 9
	(03.1.2.1.6)	<u> ≰†</u> å= 0.0138	a⁺a = 0.0121	å⁺å= 0.0676	a†a= 0.0066	å⁺å= 0.0114	a ∱ a = 0.0212	<u> ≵†</u> å= 0.0094	± [†] å= 0.0107	<u> ≵†</u> å= 0.0031	<u>a†a</u> = 0.0026
126	Women's blouse	N = 22	N = 16	N = 11	N = 35	N = 18	N = 22	N = 9	N = 9	N = 21	N = 6
	(03.1.2.2.1)	<u> ≰†</u> å= 0.0075	₫¹å = 0.0058	<u> ≰†å</u> = 0.0392	₫¹a 0.0019	a⁺a = 0.0026	a⁺a = 0.0151	<u> ≰†</u> å= 0.0057	<u>≰†</u> å= 0.0067	<u>≰†</u> å= 0.0019	<u>a†a</u> = 0.0006
127	Girl's dress (03.1.2.2.2)	N = 6	N = 8	N = 5	N = 3	N = 8	N = 5	N = 4	N = 2	N = 11	N = 3
		<u> ≰†</u> å= 0.0068	<u> ≰†</u> a= 0.0074	<u>a†a</u> = 0.0392	<u> ≰†</u> å= 0.0015	ઢ⁺ å= 0.0023	⊉¹å= 0.0161	<u> </u>	<u> ≰†a</u> = 0.0053	<u> ≰†</u> å= 0.0019	<u>a†a</u> = 0.0008
128	Girl's underwear	N = 5	N = 12			N = 1	N = 12	N = 5	N = 4	N = 8	N = 3
	(03.1.2.2.3)	<u> ≰†</u> å= 0.0072	<u> ≰†</u> a= 0.0051			a⁺a = 0.0021	a⁺a = 0.0100	<u> ≰†</u> å= 0.0042	<u> ≰†</u> å= 0.0034	<u>a†a</u> = 0.0009	<u> ≰†</u> å= 0.0007
129	Women jeans shorts	N = 7	N = 8	N = 2	N = 5	N = 1	N = 14	N = 1	N = 10	N = 23	N = 1
	(03.1.2.2.4)	&∱ å= 0.0075	⊉⁺ å= 0.0069	<u>ൂ†</u> å= 0.0392	ઢ⁺ å= 0.0019	a⁺a = 0.0036	ઢ⁺ å= 0.0092	<u> </u> ⊈† <u>a</u> = 0.0042	ઢ⁺ å= 0.0043	&[†]å = 0.0020	<u>a†a</u> = 0.0004
130	Skirt and blouse	N = 13	N = 12	N = 4	N = 3	N = 1	N = 5	N = 5	N = 11	N = 11	N = 4
	(03.1.2.2.5)	a†a= 0.0080	a ^t a = 0.0080	a⁺a = 0.0392	∦ 4 = 0.0015	ઢ⁺å= 0.0036	a⁺a = 0.0166	a [†] a= 0.0060	&⁺å= 0.0056	a ^t a= 0.0020	ata 0.0004
131	Women's summer pants	N = 6	N = 3		N = 10	N = 2	N = 8	N = 3	N = 3	N = 5	
	(03.1.2.2.6)	ઢ⁺ å= 0.0074	å⁺å = 0.0047		å⁺å= 0.0017	<u>a†a</u> = 0.0021	<u>a†a</u> = 0.0210	₫¹å= 0.0042	ઢ⁺ å= 0.0043	₫¹å= 0.0014	
132	African wear women	N = 1	N = 6	N = 9			N = 3		N = 5	N = 2	
-	(03.1.2.2.7)	<u></u> ≰†å= 0.0066	<u>ઢ⁺</u> å= 0.0077	å⁺å= 0.0181			å [†] å= 0.0176		<u></u> ≰†å= 0.0043	<u> </u>	
Contin	ued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
133	Underwear women	N = 4	N = 8		N = 11	N = 7	0 = N	N = 2	N = 2	N = 11	N = 5
	(03.1.2.2.8)	&⁺ å= 0.0074	≵¹a = 0.0061		≵[†]å= 0.0025	a∱a= 0.0025	a [†] a= 0.0086	&⁺ å= 0.0042	ઢ⁺ å= 0.0043	ઢ⁺ å= 0.0032	ata 0.0010
134	Children's wear	N = 7	N = 16	N = 6	N = 57	N = 29	N = 24	N = 3	N = 8	N = 13	N = 1
	(03.1.2.3.1)	å⁺å = 0.0553	<u> ≰†</u> a= 0.0434	<u> ≰†</u> å= 0.1553	<u> ઢ†</u> å= 0.0333	<u> ≰†</u> a= 0.0640	å [†] å= 0.0981	<u> </u>	<u> ∦1</u> 4= 0.0360	<u> </u>	<u> </u>
135	School uniforms boys	N = 6	N = 10	N = 8	N = 7	N = 3	N = 16	N = 2	N = 6	N = 4	N = 2
	(03.1.2.4.1)	ൂ†å= 0.0091	a ^t a= 0.0068	ata = 0.0211	ઢ⁺å= 0.0053	ata 0.0112	a⁺a= 0.0158	ata 0.0060	<u>ൂ†</u> å= 0.0039	∦ tata 1.0025	ata 0.0010
136	School uniforms girls	N = 4	N = 6	N = 2	N = 8	N = 2	N = 13	N = 2	N = 4	N = 2	N = 2
	(03.1.2.4.2)	a ^t å= 0.0099	a⁺a = 0.0068	ata = 0.0224	<u> ≰†</u> 3= 0.0056	&⁺ å= 0.0104	å⁺å = 0.0151	&⁺ å= 0.0060	<u>ൂ†</u> å= 0.0039	∦ tat 0.0025	&[†]å = 0.0010
137	Sports clothes	N = 1			N = 3		N = 2		N = 1	N = 3	
	(03.1.2.4.3)	&⁺ å= 0.0076			ઢ⁺ å= 0.0039		&⁺ å= 0.0186		ઢ⁺ å= 0.0039	&⁺ å= 0.0025	
138	Smock (03.1.3.1.1)	N = 6	N = 6	N = 10	N = 9		N = 12	N = 23	N = 31	N = 34	N = 21
		&∱a = 0.0030	&[†]å = 0.0030	&⁺ å= 0.0107	ઢ⁺ å= 0.0015		ઢ⁺ å= 0.0040	&⁺å = 0.0013	&∱ å= 0.0030	⊉⁺ å= 0.0006	&⁺å = 0.0005
139	Handkerchief (women)	N = 33	N = 10		N = 15	N = 6	N = 19	N = 12	N = 8	N = 24	N = 10
	(03.1.3.1.2)	≰† a= 0.0024	ata = 0.0023		≰∱a= 0.0015	a⁺a = 0.0053	&∱ å= 0.0035	&⁺ å= 0.0016	&∱ å= 0.0019	a∱a= 0.0006	a ∱ a = 0.0007
140	Men's belt (03.1.3.1.3)	N = 7	N = 1	N = 1	N = 8	N = 3	N = 10	N = 5	N = 2	N = 4	N = 5
		ઢ⁺ å= 0.0028	&⁺ å= 0.0011	&⁺ å= 0.0107	ઢ⁺ å= 0.0015	ઢ⁺å= 0.0053	&∱ å= 0.0047	&⁺ å= 0.0012	a∱a= 0.0019	<u>a</u> †∆= 0.0009	&⁺å = 0.0007
141	Polyester Tie (03.1.3.1.4)	N = 3	N = 5	N = 2	N = 3	N = 1	N = 10	N = 5	N = 2	N = 9	N = 4
		a⁺a = 0.0040	ata 0.0030	a†a= 0.0107	∦ 1 = 0.0015	ata 0.0017	a∱a= 0.0047	&⁺å = 0.0015	∦ tata 1.0019	∡⁺ å= 0.0005	a ^t a= 0.0008
142	Other articles of clothing					N = 1	N = 1			N = 4	
	(03.1.3.1.5)					&⁺ å= 0.0017	<u>a</u> ∱a= 0.0077			<u> ≰†</u> a= 0.0004	
143	Men's socks (03.1.3.1.6)	N = 7	N = 9	N = 6	N = 7	N = 7	N = 13	N = 7	N = 7	N = 11	N = 5
		± [†] å= 0.0023	<u>a</u> †a= 0.0020	<u>a</u> †a= 0.0107	<u> </u>	<u>a</u> †a= 0.0048	<u>a†a</u> = 0.0051	<u> ≵†</u> å= 0.0014	<u> ≵†</u> å= 0.0025	a [†] a= 0.0006	± ¹ a= 0.0007
144	Dry cleaning (03.1.4.1.1)	N = 33	N = 4	N = 4	N = 5	N = 9	N = 3	N = 15		N = 15	
		<u> </u>	<u></u> ⊈ [†] a= 0.0003	å⁺å= 0.0013	<u> </u>	<u> </u>	<u>a†a</u> = 0.0008	<u> </u>		<u>x†</u> a= 0.0000	
145	Tailoring charges	N = 30	N = 42	N = 30	N = 38	N = 34	N = 36	N = 34	N = 28	N = 9	N = 13
	(women) (03.1.4.2.1)	<u> </u>	<u></u> ≰†å= 0.0251	<u> ≰†</u> a= 0.1063	<u> ≰†</u> 3= 0.0148	<u></u> ≰†a= 0.0344	<u>ൂ†</u> å= 0.0199	<u> </u> ≰1 0.0144	<u>a†a</u> = 0.0107	<u> </u>	ata 0.0040
146	Tailoring charges (men)	N = 27	N = 26	N = 4	N = 25	N = 29	N = 10	N = 16	N = 27		N = 9
	(03.1.4.2.2)	a∱a 0.0079	ata = 0.0061	ata 0.0198	&⁺ å= 0.0073	a⁺a = 0.0166	&∱ \$= 0.0085	&⁺ å= 0.0064	∡⁺ å= 0.0056		a ^t a= 0.0012
147	Tailoring charges	N = 38	N = 22	N = 3	N = 27	N = 18	N = 10	N = 101	N = 12	N = 3	N = 6
	(children) (03.1.4.2.3)	a ^t a = 0.0041	ata 0.0063	<u>a†</u> a= 0.0220	<u> ≰†</u> å= 0.0057	a ^t a= 0.0088	å⁺å = 0.0037	&⁺ å= 0.0057	<u> </u> ≰†்a= 0.0057	<u> </u> ≰†≛= 0.0035	ata 0.0007
148	Footwear men	N = 31	N = 37	N = 4	N = 31	N = 16	N = 34	N = 14	N = 19	N = 33	N = 21
	(03.2.1.1.1)	<u> ≰†</u> a= 0.0312	<u> ≰†</u> å= 0.0252	å⁺å= 0.1380	<u>a†a</u> = 0.0190	ઢ⁺ å= 0.0428	<u> ≰†</u> å= 0.0765	<u>ઢ†</u> å= 0.0239	<u>a†a</u> = 0.0177	⊈†å= 0.0078	a¹a = 0.0032
149	Footwear women	N = 20	N = 14	N = 3	N = 22	N = 17	N = 39	N = 17	N = 18	N = 48	N = 7
	(03.2.1.2.1)	<u> ≰†</u> a= 0.0246	<u> </u>	<u> </u>	<u> </u>	<u>a</u> ⁺a= 0.0417	<u></u> ⊈†a= 0.0583	<u> </u>	<u> ≵†å</u> = 0.0157	<u> </u>	<u> </u>
150	Footwear children	N = 4	N = 22		N = 36	N = 13	N = 18		N = 6	N = 20	
	(03.2.1.3.1)	<u> </u>	<u> ≰†</u> a= 0.0246		<u> </u>	<u> </u> ⊈1 ± 0.0425	<u>ઢ†</u> å= 0.0689		<u>ઢ†</u> å= 0.0129	<u> </u>	
151	Repairs of footwear	N = 23	N = 47	N = 36	N = 74	N = 25	N = 54	N = 114	N = 27	N = 73	
	(03.2.2.0.2)	<u> ≰†</u> a= 0.0004	<u>a</u> †a= 0.0003	<u> </u>	<u> </u>	<u>a</u> †a= 0.0014	<u></u> ≰†a= 0.0032	<u></u> ≰†å= 0.0007	<u> </u>	<u>a</u> †a= 0.0003	
152	Rents payment	N = 21	N = 16	N = 3	N = 17	N = 6	N = 17	N = 14	N = 2	N = 14	
	(04.1.1.0.1)	<u> ≰†</u> a= 0.0810	å⁺å = 0.0881	ઢ⁺ å= 2.2431	<u> </u>	å⁺å= 0.1434	<u> ≰†</u> å= 0.2415	<u>≰†</u> å= 0.0408	<u>a†a</u> = 0.0088	&⁺ å= 0.0113	
153	Roofing sheets	N = 9	N = 21	N = 10	N = 19	N = 13	N = 14	N = 25	N = 12	N = 19	N = 14
	(04.3.1.1.1)	å⁺å = 0.0162	<u> ≰†</u> a= 0.0059	<u> ≰†</u> a= 0.0745	<u>ઢ†</u> å= 0.0114	<u>a</u> †a= 0.0161	<u>ઢ⁺</u> å= 0.0051	<u> </u>	<u>ઢ†</u> å= 0.0300	<u> </u>	<u> ≰†</u> a= 0.0044
154	lron rods (04.3.1.1.2)	N = 23	N = 30	N = 11	N = 32	N = 41	N = 20	N = 47	N = 39	N = 39	N = 29
ļ		±ta= 0.0023	<u>ئائ</u> ة= 0.0014	≰†ًa= 0.0253	≰†a= 0.0029 2.1 =	<u>⊾†</u> ًa= 0.0036	⊈ ¹ 4 0.0022	<u>a</u> †a= 0.0015	<u>≰†</u> å= 0.0002	±1ًa = 0.0009	ata 0.0046
155	Cement (minor repairs)	N = 12	N = 10	N = 8	N = 7	N = 9	N = 9	N = 16	N = 10	N = 12	N = 10
	(04.3.1.1.3)	&[†]å = 0.0152	a⁺a = 0.0168	<u>ൂ†</u> å= 0.0906	ઢ⁺å= 0.0098	ઢ⁺ å= 0.0233	ઢ [†] å= 0.0261	&[†]å = 0.0168	ઢ⁺ å= 0.0136	<u> </u>	ઢ⁺ å= 0.0046
Conti	nued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
156	Cement blocks	N = 34	N = 3		N = 3		N = 8	N = 1		N = 9	N = 1
_	(04.3.1.1.4)	ata 0.0019	&∱ a= 0.0033		a⁺a = 0.0016		a⁺a = 0.0180	ata 0.0048		a ^t a= 0.0006	<u></u> ⊈† <u>a</u> = 0.0042
157	Paint (04.3.1.1.5)	N = 71	N = 22	N = 26	N = 16	N = 58	N = 62	N = 44	N = 20	N = 24	N = 27
_		&[†]å = 0.0025	&[†]å = 0.0030	<u></u> ⊈†å= 0.4379	å⁺å= 0.0013	a⁺a = 0.0208	a⁺a = 0.0072	<u> ≰†</u> å= 0.0042	<u></u> ≰†å= 0.0043	<u> ≰†</u> å= 0.0004	<u> ≰†</u> a= 0.0029
158	Windows/doors	N = 6	N = 4	N = 1	N = 18	N = 5	N = 14	N = 7	N = 16	N = 40	
_	(04.3.1.1.6)	ઢ⁺å = 0.0052	a⁺a = 0.0033	<u>a⁺a</u> = 0.0146	<u> ≰†</u> a= 0.0006	<u> ≰†</u> å= 0.0088	<u>ൂ†</u> å= 0.0033	<u> </u>	a [†] a = 0.0021	<u></u> ⊈† <u>a</u> = 0.0003	
159	Wood (04.3.1.1.7)	N = 12	N = 8	N = 4	N = 32	N = 33	N = 17	N = 11	N = 30	N = 22	N = 13
		± ^t a = 0.0009	<u>1148 ماران مال</u>	≵†å= 0.0293	± ^t a= 0.0018	ઢ⁺ å= 0.0161	± ^t a= 0.0031	<u></u> ≰†å= 0.0016	<u></u> ≰†a= 0.0087	<u></u> ≰†å= 0.0015	<u>≰†</u> a= 0.0034
160	Other materials for	N = 3	N = 9		N = 4		N = 2	N = 2		N = 6	
	maintenance (04.3.1.1.8)	ઢ⁺ å= 0.0511	ata = 0.1012		<u>∎</u> †ًa= 0.0016		±†ً±= 0.0831	<u>≰†</u> å= 0.0688		±ta= 0.0431	
161	Labour for maintenance				N = 2		N = 5	N = 4		N = 21	
_	(04.3.2.0.1)				ata 0.0086		a∿a= 0.0100	ઢ⁺ å= 0.0078		ata= 0.0028	
162	Water supply (04.4.1.1.1)	N = 3			N = 3		N = 1	N = 3	N = 1		
_		<u></u> ≰†±= 0.0404			<u></u> ≰†a= 0.0412		a⁺a = 0.0011	<u>a†a</u> = 0.0710	<u> ≰†</u> å= 0.0607		
163	Re-sold tap water in	N = 15	N = 4		N = 15		N = 11	N = 11	N = 3	N = 15	
_	buckets/barrels/jerrycans	<u> </u>	<u> </u>		<u>ઢ†</u> å= 0.0667		<u></u> ⊈†a= 0.1220	<u> </u>	<u> </u>	± ^t a 0.0009	
_	(04.4.1.2.1)										
164	Refuse disposal	N = 1	N = 1				N = 1	N = 1	N = 2	N = 2	
-	(04.4.2.0.1)	<u> ≰†</u> a= 0.0092	<u> </u>				a⁺a = 0.1404	<u> ≰†</u> å= 0.0004	<u> ≰†</u> å= 0.0004	<u> ≰†</u> å= 0.0003	
165	Sewage collection	N = 1			N = 1					N = 2	N = 1
_	(04.4.3.1.1)	&[†]å = 0.0100			a∱t = 0.0009					&[†]å = 0.0032	<u>⊾†</u> a= 0.0176
166	Public toilets fees	N = 4	N = 10		N = 6	N = 1	N = 13	N = 8	N = 1	N = 6	
_	(04.4.3.2.1)	± ^t å= 0.0075	<u> </u>		<u> ≰†</u> a= 0.0030	&⁺å= 0.0557	<u> </u> ≰1 0.0446	a ^t a= 0.0059	<u> </u>	a ^t a= 0.0023	
167	Electricity (04.5.1.0.1)						N = 1		N = 4	N = 1	
_							a⁺a = 0.4794		<u> ≰†</u> å= 0.1028	<u> ≰†</u> å= 0.0402	
168	: Gas (04.5.2.2.1)	N = 7	N = 3		N = 2	N = 2	N = 4	N = 11	N = 1	N = 3	N = 3
_		&[†]å = 0.0855	&∱ a= 0.0182		&⁺å= 0.0301	ઢ⁺å= 0.0453	&⁺ å= 0.1076	ढ⁺ å= 0.0245	ઢ⁺ å= 0.0081	ata 0.0049	ઢ⁺ å= 0.0065
169	Liquid fuel (04.5.3.0.1)	N = 2	N = 5		N = 8		N = 3			N = 2	
_		å⁺å = 0.0052	<u> ≰†</u> a= 0.0019		a ^t a= 0.0097		a ^t a= 0.0090			<u> </u>	
170	Solid fuels (firewood)		N = 3		N = 9	N = 1	N = 1		N = 2	N = 1	
_	(04.5.4.2.1)		<u> </u>		<u>a†a</u> = 0.0410	<u> </u>	<u>a†</u> a= 0.1192		<u> ≰†a</u> = 0.0150	<u> </u>	
171	Charcoal (04.5.4.3.1)	N = 11	N = 14	N = 5	N = 18	N = 4	N = 14	N = 14	N = 14	N = 6	
_		ata 0.0916	ൂ†ta = 0.0396	ઢ⁺ å= 0.3314	ata 0.0390	∡⁺ å= 0.0647	a∿a= 0.1172	&⁺ å= 0.0283	ઢ⁺ å= 0.0291	a†a= 0.0082	
172	Foam mattress	N = 9	N = 7	N = 24	N = 5	N = 11	N = 13	N = 13	N = 5	N = 7	N = 7
_	(05.1.1.1.1)	⊉⁺å = 0.0063	<i>⊾</i> †்a= 0.0054	a∱a= 0.0182	&⁺å= 0.0076	∡⁺ å= 0.0061	a∱a= 0.0101	a∱a= 0.0110	<u> ≰†</u> a= 0.0055	a†a= 0.0028	<u> ⊾†</u> a= 0.0014
173	Bedsteads (05.1.1.1.2)	N = 23	N = 20	N = 2	N = 10	N = 18	N = 12	N = 15	N = 17	N = 10	N = 10
_		&[†] å= 0.0023	<u> ઢ⁺</u> å= 0.0032	a [†] a= 0.0100	<u> ≰†</u> å= 0.0035	<u> ≰†</u> a= 0.0054	ઢ⁺ å= 0.0061	<u>a†a</u> = 0.0029	<u> ≰†</u> a= 0.0014	a ^t a= 0.0005	<u> ≰†</u> a= 0.0001
174	Other furniture and		N = 1		N = 2	N = 6	N = 6	N = 2	N = 1		
_	furnishing items		<i>⊾</i> †₄= 0.0008		a∿ta 0.0009	a∿a = 0.0012	a∿a = 0.0029	ata= 0.0008	⊉⁺ å= 0.0008		
1	(05.1.1.1.3)	:	•					:			:
175	Two doors wardrobe	N = 5	N = 9		N = 3	N = 6	N = 3	N = 11	N = 8	N = 9	N = 7
	(05.1.1.1.4)	a ∱a= 0.0024	&† å= 0.0013		a ⁺ a = 0.0007	a⁺a = 0.0012	a⁺a = 0.0023	<u>ൂ†</u> å= 0.0008	<u>≰†å</u> = 0.0008	≵[†]å = 0.0007	<u> ≰†å</u> = 0.0003
176	Chest of drawers	N = 3	N = 7		N = 3		N = 3	N = 9	N = 9	N = 9	
1	(05.1.1.1.5)	a∱a = 0.0021	<u>a†a</u> = 0.0015		ata 0.0007	:	<u>ઢ†</u> å= 0.0023	±ta= 0.0008	±th= 0.0008	a∱a= 0.0007	
177	Chair (05.1.1.1.6)	N = 11	N = 25		N = 14	N = 5	N = 18	N = 16	N = 13	N = 19	N = 3
		<u>≵†</u> a= 0.0009	<u> </u>		å⁺å= 0.0008	ઢ⁺ å= 0.0014	å⁺å= 0.0020	<u> ≰†</u> a= 0.0008	<u>a†a</u> = 0.0008	<u> ≵†</u> å= 0.0007	<u> </u>
Cont	tinued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
178	Table (05.1.1.1.7)	N = 5	N = 19		N = 11	N = 2	N = 10	N = 15	N = 9	N = 18	N = 4
		&⁺ å= 0.0012	&⁺ å= 0.0013		a ^t a= 0.0008	a ^t a= 0.0012	&⁺ å= 0.0018	∦ tat 0.0008	a ^t a= 0.0008	a ^t a= 0.0007	a ^t a= 0.0004
179	Wall clock (05.1.1.4.1)	N = 1	N = 1	N = 1	N = 3	N = 2	N = 7	N = 3	N = 5		N = 1
		∦ tat 0.0018	a†a= 0.0012	&⁺ å= 0.0031	∦ tat 0.0013	№[†]å = 0.0010	<u> ≰†</u> a= 0.0020	&⁺ å= 0.0007	a ^t a= 0.0008		&⁺ å= 0.0001
180	Polypropylene carpet	N = 10	N = 14	N = 5	N = 10	N = 12	N = 12	N = 7	N = 6	N = 6	N = 2
	(05.1.1.4.2)	ढ† å= 0.0045	&∱ å= 0.0010	a⁺a = 0.0020	a⁺a = 0.0022	a∱a= 0.0009	&∱a= 0.0017	&⁺ å= 0.0007	a ^t a= 0.0008	a∱a= 0.0006	&[†]å = 0.0001
181	Woolen carpet	N = 3	N = 5	N = 1		N = 1	N = 7	N = 2	N = 4	N = 5	N = 1
	(05.1.1.4.3)	₫¹ å= 0.0014	<u>a†a</u> = 0.0016	a¹a = 0.0031		⊉⁺ å= 0.0010	<u>a†a</u> = 0.0021	⊉⁺ å= 0.0008	⊉¹å= 0.0008	a¹a 0.0006	<u> ≰†</u> å= 0.0002
182	Repairs of tables and	N = 1	N = 3				N = 6	N = 5	N = 2	N = 3	
	chairs (05.1.2.0.1)	<u>a†a</u> = 0.0000	<u>a†a</u> = 0.0000				<u>ઢ†</u> å= 0.0000	<u> </u>	<u>a</u> †a= 0.0000	<u>a</u> †a= 0.0000	
183	Other household textiles	N = 1			N = 8	N = 5	N = 3	N = 2			
	(05.2.1.2.1)	<u> </u>			å¹å= 0.0016	<u> ≰†</u> å= 0.0029	<u>a†a</u> = 0.0068	<u> </u> ⊈†å= 0.0019			
184	Curtain material		N = 8	N = 1	N = 5	N = 1	N = 7	N = 3	N = 3	N = 4	N = 2
	(05.2.1.2.2)		a⁺a = 0.0030	a¹a = 0.0095	⊉¹å= 0.0015	<u> ≰†</u> å= 0.0029	<u></u> ⊈†å= 0.0068	a⁺ a= 0.0017	a⁺a = 0.0010	<u> ≰†</u> å= 0.0005	<u> ≰†</u> a= 0.0001
185	Bedsheet (05.2.1.2.3)	N = 18	N = 8	N = 6	N = 18	N = 12	N = 13	N = 14	N = 11	N = 11	N = 3
		&⁺ å= 0.0024	&⁺ å= 0.0028	∦∿ ≡ 0.0095	∡⁺ å= 0.0014	a⁺a = 0.0031	∦ that 0.0052	&∱ å= 0.0017	a∱a= 0.0011	&[†]å = 0.0005	⊉[†]å = 0.0001
186	Blanket (05.2.1.2.4)	N = 9	N = 12	N = 3	N = 12	N = 1	N = 14	N = 4	N = 2	N = 8	N = 1
		<u> ⊈†</u> å= 0.0023	<u>a†a</u> = 0.0030	a¹a = 0.0095	a¹a = 0.0015	<u> ≰†</u> å= 0.0029	<u> </u>	<u>a†a</u> = 0.0019	⊉¹å= 0.0011	<u> ≰†</u> å= 0.0005	<u>≰†</u> å= 0.0001
187	Towels (05.2.1.2.5)	N = 11	N = 13	N = 11	N = 10	N = 2	N = 21	N = 6	N = 10	N = 12	N = 1
		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>a†a</u> = 0.0011	<u> </u>	<u> ≰†a</u> = 0.0001
188	Gas stove (05.3.1.1.1)	N = 18	N = 9	N = 37	N = 16	N = 14	N = 47	N = 24	N = 11	N = 17	N = 7
		<u>ൂ†</u> å= 0.0049	<u> ≰†</u> a= 0.0034	ata = 0.0151	<u>a†a</u> = 0.0011	<u> </u>	<u> </u>	<u> ≰†</u> a= 0.0028	<u>a†a</u> = 0.0011	<u></u> ≰†a= 0.0008	<u>a</u> †a= 0.0003
189	Refrigerators and freezers	N = 14	N = 1	N = 21	N = 13	N = 8	N = 21	N = 19	N = 4	N = 18	N = 5
	(05.3.1.1.2)	ata = 0.0048	ઢ⁺ å= 0.0034	ata 0.0155	a∿a= 0.0011	ata= 0.0011	ઢ⁺ å= 0.0036	ઢ⁺ å= 0.0028	a∿a= 0.0012	ata = 0.0008	ઢ⁺ å= 0.0002
190	Washing machines	N = 6		N = 16	N = 5	N = 2	N = 10	N = 7	N = 3	N = 6	N = 2
	(05.3.1.2.1)	<u> </u>		a ∱a= 0.0155	<u>ൂ†</u> å= 0.0003	<u></u> ⊈†∆= 0.0027	<u> </u>	<u> ≰†</u> 1= 0.0028	a ^t a= 0.0009	<u></u> ≰†a= 0.0008	<u>a⁺a</u> = 0.0002
191	Air conditioners	N = 4	N = 4	N = 9	N = 2	N = 2	N = 6	N = 4	N = 3	N = 1	N = 1
	(05.3.1.3.1)	<u> </u>	ઢ⁺ å= 0.0034	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>a</u> †a= 0.0009	<u> </u>	<u> </u>
192	Broom (05.3.1.4.4)	N = 11	N = 9	N = 4	N = 11	N = 2	N = 17	N = 11	N = 13	N = 15	N = 6
		<u> </u>	a⁺a = 0.0015	<u> ≰†</u> a= 0.0095	<u>a</u> †a= 0.0019	<u> ≰†</u> å= 0.0019	<u> ≰†</u> å= 0.0046	⊉[†]å= 0.0003	<u>a</u> †a= 0.0019	<u> ≰†</u> å= 0.0011	<u> ≰†</u> a= 0.0005
193	Electric sewing machine	N = 1	N = 3	N = 2		N = 1	N = 3	N = 2	N = 1		
	(05.3.1.9.1)	ata = 0.0046	ઢ⁺ å= 0.0034	ata 0.0155		a ^t a= 0.0008	<u> </u>	&∱ å= 0.0028	a∿a= 0.0012		
194	Rice cooker (05.3.2.1.1)	N = 5		N = 7		N = 2	N = 4				
195	Toactar (05 3 2 1 2)	™±1 = 0.0033 N = 2	n – N	<u>ئ</u> ٹ≛= 0.0044 N = ۹	N = 6	ata= 0.0007	±ta= 0.001 /	N = 6	N = 1		
		±ta= 0.0018	±ta= 0.0014	±ta= 0.0059	±ta= 0.0012			±łå= 0.0006	±ta= 0.0008		
196	Blender (05.3.2.1.3)	N = 13	N = 3	N = 10	N = 8	N = 5	N = 19	N = 12	N = 4	N = 8	N = 6
		&⁺ å= 0.0017	&⁺ å= 0.0014	a∱a= 0.0054	a∱a= 0.0006	a ^t a= 0.0007	&⁺ å= 0.0017	∦ å= 0.0006	a∱a= 0.0009	&⁺ å= 0.0002	⊉[†]å = 0.0001
197	Electric kettle (05.3.2.2.1)	N = 9	N = 2	N = 12	N = 5	N = 2	N = 20	N = 11	N = 4	N = 4	N = 4
		&⁺ å= 0.0026	&⁺ å= 0.0014	ata= 0.0059	ઢ⁺ å= 0.0008	a ^t a= 0.0015	<u> </u>	≵⁺ å= 0.0006	ઢ⁺ å= 0.0004	ata 0.0002	⊉⁺ å= 0.0001
198	Other small electric	N = 2			N = 1		N = 3	N = 2	N = 1	N = 1	
	household appliances	a⁺a = 0.0018			<u>ઢ⁺</u> ኔ= 0.0008		a†a= 0.0017	å⁺å= 0.0010	<u>ઢ⁺</u> ኔ= 0.0004	a∱a= 0.0002	
1 90	(U2.3.2.2.3) Dry alactric iron	N = 14	N = 3	N = 29	N = 10	N = 10	N = 3.1	N = 18	0 - N	N = 14	N = A
)) 1	(05.3.2.9.1)	±ta= 0.0017	ata 0.0013 ⊾ta	±tå= 0.0054	±ta= 0.0009	ata= 0.0014	ata 0.0016	± [†] å= 0.0006	±ta= 0.0004	± ^t å= 0.0002	±ta= 0.0001
Conti	inued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
200	Pedestal fan (05.3.2.9.2)	N = 12	с В В	N = 10	8 Z	N = 14	N = 20	N = 14	N = 2	N = 10	: = = Z
		₫[†]å= 0.0017	å⁺å = 0.0014	<u>a</u> †a= 0.0048	a [†] a= 0.0009	å ta 0.0015	a∱a= 0.0017	a∱a= 0.0006	a † a = 0.0004	å⁺å = 0.0002	
201	Cups and mugs	N = 12	N = 9		N = 20	N = 7	N = 28	N = 9	N = 6	N = 18	N = 8
	(05.4.0.1.1)	<u></u> ≰†± 0.0044	a [†] a = 0.0057		&⁺ å= 0.0028	a ^t a= 0.0008	å⁺å= 0.0081	ata 0.0032	ൂ†t= 0.0034	a†a= 0.0018	ata 0.0004
202	Plates (05.4.0.2.1)	N = 12	N = 13	N = 1	N = 21	N = 7	N = 33	N = 23	N = 8	N = 18	N = 10
		<u> ≰†</u> a= 0.0044	a†a = 0.0057	<u>a†a</u> = 0.0112	å⁺å= 0.0027	<u> ≰†</u> a= 0.0061	å⁺å= 0.0081	a¹a = 0.0031	ઢ⁺å= 0.0046	<u> ≰†</u> å= 0.0018	<u>≰†</u> a= 0.0004
203	Aluminium cooking	N = 14	N = 18	N = 11	N = 40	N = 21	N = 50	N = 27	N = 13	N = 28	N = 8
	utensils (05.4.0.3.1)	ઢ⁺ å= 0.0044	<u> ≰†</u> å= 0.0057	a ^t å= 0.0093	<u>ઢ⁺</u> å= 0.0027	ઢ⁺ å= 0.0029	<u>ઢ⁺</u> å= 0.0080	&⁺ å= 0.0032	<u>ൂ†</u> 3= 0.0041	<u> </u>	a⁺a = 0.0005
204	Motorised tools and	N = 1	N = 3				N = 8	N = 1	N = 1	N = 1	
	equipment (05.5.1.0.1)	å⁺å = 0.0013	ata = 0.0001				<u>ൂ†</u> å= 0.0004	ata = 0.0003	ઢ⁺ å= 0.0012	<u> </u>	
205	Vacuum cleaner	N = 2					N = 2		N = 1		
	(05.5.2.1.1)	<u> ≵†</u> 3 = 0.0003					<u>ઢ⁺</u> ኔ= 0.0004		<u> </u>		
206	Mop and handle	N = 7	N = 4	N = 9	N = 6	N = 3	N = 11	N = 8	N = 3	N = 11	N = 5
	(05.5.2.1.2)	±±± 0.0009	<u> ≰†</u> å= 0.0003	<u>a†a</u> = 0.0006	<u></u> ⊈†å= 0.0014	<u>a†a</u> = 0.0008	a [†] a = 0.0007	a¹a = 0.0013	⊉¹å= 0.0005	<u> ≰†</u> å= 0.0002	<u>a†a</u> = 0.0000
207	Bucket (05.5.2.1.3)	N = 9	N = 7	N = 6	N = 10	N = 1	N = 11	N = 8	N = 6	N = 16	N = 3
		⊈∱≛ 0.0009	&∱å = 0.0004	<u>ઢ⁺</u> å= 0.0004	<u> ≰†</u> å= 0.0014	&⁺ å= 0.0003	<u>a</u> ta= 0.0009	∦ tat 0.0011	₫[†]å= 0.0005	<u> ≰†</u> å= 0.0002	<u>ઢ†</u> å= 0.0001
208	Cutlasses (05.5.2.1.4)	N = 15	N = 6	N = 9	N = 7	N = 9	N = 16	N = 13	N = 7	N = 9	N = 2
		±ła = 0.0008	<u> ≰†</u> å = 0.0005	∡⁺ å= 0.0004	<u> ≰†</u> å= 0.0014	<u>∡†</u> a= 0.0008	<u>a†a</u> = 0.0012	<u> ≰†</u> a= 0.0012	<u>a</u> †a= 0.0006	<u> ≰†</u> å= 0.0003	<u> ≰†</u> a= 0.0002
209	Shovel (Metal)	N = 23	N = 6	N = 7	N = 5	N = 16	N = 17	N = 15	N = 4	N = 12	N = 3
	(05.5.2.1.5)	∡† å= 0.0008	≵[†]å= 0.0005	∡∱ å= 0.0004	∦ that 0.0015	a [†] a= 0.0006	&∱å = 0.0011	a [†] a = 0.0011	&[†]å = 0.0005	⊉⁺ å= 0.0002	⊉⁺ å= 0.0002
210	Rake (05.5.2.1.6)	N = 4	N = 2	N = 3	N = 7	N = 4	N = 5	N = 2		N = 5	N = 1
		a ^t a= 0.0003	a [†] a 0.0003	ata 0.0006 ata	∦ å= 0.0015	a ^t a= 0.0009	∦ tata 0.0011	± ^t ±= 0.0009		a [†] a= 0.0003	a [†] a= 0.0001
211	Wheelbarrow (05.5.2.1.7)	N = 16	N = 8	N = 3	N = 9	N = 8	N = 7	N = 8	N = 4	N = 10	N = 2
		a ^t a = 0.0006	a ^t a = 0.0006	a ^t å= 0.0006	∦ the 0.0015	a ^t a= 0.0006	&⁺å= 0.0012	ata= 0.0011	a ^t a= 0.0006	a†a= 0.0002	⊉⁺ å= 0.0001
212	Other lighting products	N = 20	N = 13	N = 15	N = 5	N = 3	N = 29	N = 10	N = 7	N = 6	N = 6
	(05.5.2.2.1)	a ^t a = 0.0050	<u> </u> ⊈† <u>3</u> = 0.0043	a ^t a= 0.0078	<u> </u> ≰∱a= 0.0041	<u> </u> ⊈† <u>a</u> = 0.0045	ata 0.0072	ata 0.0067	ൂ∱t= 0.0094	a ^t a= 0.0068	a ^t a= 0.0007
213	Light bulbs (05.5.2.2.2)	N = 26	N = 21	N = 6	N = 16	N = 10	N = 33	N = 30	N = 14	N = 27	N = 7
		<u> ≰†</u> a= 0.0043	<u> ≰†</u> å= 0.0041	<u>a†a</u> = 0.0209	ઢ⁺å= 0.0036	<u>a†a</u> = 0.0068	<u>a⁺a</u> = 0.0096	a⁺a = 0.0027	ઢ⁺å= 0.0029	<u> ≰†</u> å= 0.0012	<u>a†a</u> = 0.0009
214	Disinfectants (05.6.1.1.1)	N = 13	N = 13	N = 69	N = 8	N = 12	N = 21	N = 13	N = 8	N = 6	N = 6
		<u> ≰†</u> a= 0.0005	<u> ≰†</u> å= 0.0047	<u>a†a</u> = 0.0271	a†a 0.0006	<u> ≰†</u> a= 0.0023	<u>a</u> †a= 0.0027	a¹a = 0.0004	⊉¹å= 0.0001	<u> ≰†</u> å= 0.0002	<u> ≰†</u> a= 0.0046
215	Bleaches (05.6.1.1.2)	N = 15	N = 8	N = 15	N = 5	N = 6	N = 10	N = 5	N = 4	N = 6	
		atha= 0.0004	<u> </u>	a⁺a= 0.0244	&⁺ å= 0.0003	a ^t a= 0.0030	ata = 0.0031	atta= 0.0004	ઢ⁺ å= 0.0002	a⁺a= 0.0002	
216	Washing powder	N = 27	N = 39	N = 63	N = 54	N = 25	N = 77	N = 39	N = 46	N = 39	N = 35
	(05.6.1.1.3)	⊉† å= 0.0166	ata 0.0297	ata= 0.1425	a∱a= 0.0151	ata 0.0347	ata 0.0399	ata 0.0235	a⁺a= 0.0115	⊉⁺ å= 0.0043	ata 0.0007
217	Washing soap	N = 46	N = 27	N = 32	N = 24	N = 24	N = 48	N = 51	N = 26	N = 10	N = 12
	(05.6.1.1.4)	<u> ≵†</u> 3= 0.0493	<u> </u>	<u>a†a</u> = 0.1428	<u> </u>	<u> ⊾†a</u> = 0.0599	<u> ≰†</u> a= 0.0786	<u> </u>	<u> </u>	<u> </u>	<u> </u>
218	Insecticides sprays	N = 24	N = 20	N = 55	N = 10	N = 13	N = 44	N = 19	N = 12	N = 11	N = 9
	(05.6.1.9.1)	<u> </u>	<u> ≰†</u> å= 0.0031	<u>a†a</u> = 0.0247	<u> ≰†</u> å= 0.0025	<u> ≰†</u> a= 0.0057	<u>a†a</u> = 0.0071	⊉¹å= 0.0018	å⁺å= 0.0010	<u> ≰†</u> å= 0.0005	<u> ≰†</u> a= 0.0001
219	Matches (05.6.1.9.2)	N = 16	N = 11		N = 12	N = 9	N = 18	N = 12	N = 12	N = 12	N = 11
		&⁺å = 0.0017	₫ 1 0.0019		<u> ≰†å</u> = 0.0019	<u> ≰†</u> a= 0.0026	&[†]å = 0.0010	a∱a= 0.0006	a⁺a = 0.0023	<u> ≰†</u> å= 0.0002	<u> ≰†</u> a= 0.0001
220	Other non-durable goods	N = 13	N = 14	N = 9	N = 16	N = 4	N = 26	N = 20	N = 8	N = 27	N = 3
	(05.6.1.9.3)	₫ [†] 3 = 0.0005	⊉⁺ å= 0.0010	<u>ઢ⁺</u> å= 0.0079	<u> ≰†å</u> = 0.0005	ઢ⁺ å= 0.0004	&[†]å = 0.0011	a⁺a = 0.0007	a⁺a = 0.0001	<u> ≰†</u> å= 0.0002	<u>ઢ†</u> å= 0.0001
221	Shoe polish (05.6.1.9.4)	N = 26	N = 17	N = 2	N = 10	N = 8	N = 22	N = 15	N = 13	N = 12	N = 9
		<u> ≰†</u> a= 0.0003	<u>a</u> †a= 0.0008	<u>a†a</u> = 0.0079	<u> </u>	<u> ≰†</u> a= 0.0004	a ^t å= 0.0009	a¹a = 0.0007	å⁺å= 0.0004	<u> </u>	<u> ≰†</u> a= 0.0001
222	Candle (05.6.1.9.5)	N = 17	N = 12	N = 2	N = 8	N = 10	N = 24	N = 14	N = 11	N = 12	N = 6
		ઢ⁺ å= 0.0004	atta = 0.0009	ata= 0.0079	ൂ†å= 0.0005	ઢ⁺å= 0.0004	ઢ⁺ å= 0.0007	ata 0.0007	a ∱a= 0.0001	ઢ⁺ å= 0.0002	ata 0.0001
Conti	inued on next page										

			-				:		-		
	Item	western	Central	ureater Accra	VOILA	Eastern	Asnanti	brong Anaro	NOLLINELI	upper East	upper west
223	Insecticides coil	N = 16	N = 17	N = 10	N = 14	N = 12	N = 35	N = 17	N = 11	N = 12	N = 9
	(05.6.1.9.6)	∦ the	ata 0.0033	<u> ≰†</u> a= 0.0244	ढ⁺ å= 0.0024	ata 0.0055	a∱a= 0.0068	a†a= 0.0019	&∱ å= 0.0013	&⁺ å= 0.0003	⊉⁺ å= 0.0001
224	Domestic services and						N = 1			N = 1	
	household services						<u>ൂ†</u> 1= 0.0094			<u> </u>	
	(05.6.2.1.1)										
225	Antibiotics (06.1.1.1.1)	N = 107	N = 108	N = 59	N = 70	N = 108	N = 63	N = 143	N = 61	N = 81	N = 45
		<u> </u> ≰†± 0.0030	&⁺å = 0.0043	<u>a†a</u> = 0.0144	<u> ≰†</u> å= 0.0073	a∱a= 0.0079	ൂ†å= 0.0059	<u> </u>	a ^t a= 0.0080	<u> ≰†</u> å= 0.0028	a ^t a= 0.0008
226	Anti-malaria (06.1.1.1.2)	N = 26	N = 26	N = 3			N = 30	N = 31	N = 17	N = 15	N = 12
		a [†] a= 0.0030	ata 0.0043	ata 0.0118			≵⁺å= 0.0061	<u> </u> ≰†≛= 0.0045	a†a= 0.0071	<u> ≰†</u> å= 0.0032	a∱t= 0.0009
227	Pain killers (06.1.1.1.3)	N = 32	N = 29	N = 20	N = 15	N = 29	N = 29	N = 32	N = 31	N = 24	N = 36
		∦ tata 1.0034	ata 0.0043	ata = 0.0152	∦ å= 0.0055	ൂ†å= 0.0058	≵⁺å= 0.0061	<u>a†</u> a= 0.0049	a†a= 0.0068	<u> ≰†</u> å= 0.0029	a ^t a= 0.0009
228	Traditional Ghanaian	N = 38	N = 19		N = 25	N = 30	N = 25	N = 17	N = 4	N = 11	N = 7
	drugs (06.1.1.2.1)	a⁺a = 0.0020	ata 0.0044		∡⁺ å= 0.0048	a∱a= 0.0126	a∱a= 0.0039	∦ tata 1.0025	<u>a†a</u> = 0.0018	∡⁺ å= 0.0004	a ^t a= 0.0002
229	Other medical products	N = 55	N = 34	N = 24	N = 36	N = 37	N = 36	N = 53	N = 18	N = 45	N = 20
	(06.1.2.1.1)	⊉⁺ å= 0.0040	ata = 0.0012	ata = 0.0026	ઢ⁺ å= 0.0022	a∱a= 0.0046	a⁺a = 0.0053	&⁺ å= 0.0007	<u>a†a</u> = 0.0038	∦ tat 0.0018	ata = 0.0005
230	Contraceptives	N = 26	N = 27	N = 27	N = 20	N = 20	N = 30	N = 29	N = 27	N = 24	N = 18
	(06.1.2.2.1)	atha = 0.0006	a ^t a = 0.0008	ata = 0.0043	∦ å= 0.0016	±ła= 0.0009	a∱a= 0.0026	∦ å= 0.0005	a†a= 0.0004	∦ tata 1.0002	a ^t a= 0.0003
231	Eye specialist (06.1.3.1.1)	N = 4	N = 2		N = 4	N = 1	N = 1				
		∦ tat = 0.0001	a [†] a = 0.0002		∦ tat 0.0001	ൂ∱a= 0.0001	≵⁺å= 0.0016				
232	Cost of public dental	N = 13	N = 6	N = 25	N = 2	N = 4	N = 9		N = 2	N = 1	N = 4
	services (06.2.2.1.1)	ata 0.0001	&[†]å = 0.0002	ata = 0.0007	a [†] a= 0.0001	&∱ \$= 0.0002	≵[†]å= 0.0005		a†a= 0.0001	⊉⁺ å= 0.0000	1 4∆= 0.0000
233	Doctor's consulting fee	N = 13	N = 5	N = 32	N = 14	N = 22	N = 19	N = 4	N = 7	N = 11	N = 4
	(06.2.3.1.1)	<u> ≵†</u> 1 = 0.0093	<u></u> ≰†a= 0.0132	<u>a</u> ta= 0.0437	<u> ≰†</u> a= 0.0149	a [†] a= 0.0096	<u> </u> ≰†±= 0.0294	<u> </u>	<u> a†a</u> = 0.0046	<u> </u>	<u>a†a</u> = 0.0004
234	Hospital services (bed	N = 5	N = 1	N = 10	N = 1		N = 1		N = 1		
	occupancy) (06.3.1.0.1)	<u> </u> ≰†± 0.0062	&[†]å = 0.0055	<u>a†a</u> = 0.0246	<u> ≰†</u> 1= 0.0038		ൂ†å= 0.0396		a ^t a= 0.0000		
235	Laboratory test	N = 10	N = 4	N = 10	N = 6	N = 15	N = 6	N = 7	N = 5	N = 7	N = 6
	(06.4.1.0.1)	<u> </u> ⊈†3 = 0.0003	&⁺ å= 0.0011	<u> ≰†</u> a= 0.0025	<u> </u>	<u> </u>	<u>a</u> †a= 0.0006	<u> </u>	å⁺å= 0.0001	<u> </u>	± ^t å= 0.0003
236	X-rays (06.4.1.0.2)	N = 3		N = 8	N = 1	N = 7	N = 1		N = 1		
		&⁺ å= 0.0002		ata = 0.0025	<u>ൂ†</u> å= 0.0004	&∱ \$= 0.0013	a†a= 0.0007		±ta= 0.0000		
237	New car (07.1.1.1.1)			N = 8			N = 8		N = 2		
				ata = 0.2962			ata= 0.2498		ઢ⁺ å= 0.0124		
238	Second-hand car	N = 19					N = 7				
	(07.1.1.2.1)	<i>⊾</i> †₄= 0.0413					ata = 0.3746				
239	Purchase of new and	N = 2		N = 4	N = 1		N = 3	N = 3	N = 5	N = 20	N = 8
	second-hand motor	™ = 0.0147		™= 0.0220	™ = 0.0336		™ = 0.0122	™ = 0.0823	ata= 0.0511	™ = 0.0164	™±±= 0.0032
0	cycles (0/.1.2.0.1)										
240	Purchase of new bicycles	N = 2	N = T	N = 5		N = I	N = 3		N = 2	N = 8	
77 ((0/.1.3.0.1)	14 مال 10.00 14 مال 10.00	¥12=0.0012	™= 0.0031		™= 0.0019	IT▲= 0.0008		±14= 0.0108 N = 1	≱11= 0.0033 11= 10	2
74T	Purchase of the	0 = N		N = 2		N = 13	0T = N	N = 0	N = 4	N = 10	
((0/.2.1.1.1)	⊉ٹ≰= 0.0036 مراج	2	™ ≡ 0.0339	ata= 0.0028	±∿= 0.0019	™= 0.0020	attan 1.0008 attantantan 2.0008 attantantantan 2.0008 attantantantantan 2.0008 attantantantantantantan 2.0008 attantantantantantantantantantantantanta	±1± 0.0005 ±1±	±14 0.0001 ±14 ±14 ±14 ±14 ±14 ±14 ±14 ±14 ±14 ±1	™ = 0.0016
242	car pattery (U/.2.1.2.1)	0 = N				N = 2			N = 3	N = 0	
		±ta = 0.0008	±ta= 0.0018		<u></u> ≰†≛ 0.0021	™= 0.0007	±ta= 0.0092	⊉† å= 0.0010	±ta= 0.0003	≵† å= 0.0001	
243	Spark plug (07.2.1.2.2)	N = 4	N = 6		N = Z	N = 3	N = 2		N = 3		
~ ~ ~ ~		≇ta= 0.0039 N = 14	ช∿ = 0.0014 N = 0		≵ٹھ= 0.0014 N – 8	10.0025 ±±± 11 − 1	፤ቴቴ= 0.0312 № - 7		±ta= 0.0053 N = 10		
t t 7		$x^{+}x = 0.0011$	5 - M #4= 0 0072	tv = 0 ≉∱ŧ= 0 0547	$x^{h_{\rm H}} = 0.0011$	14 - 4 # ¹ #= 0 0036	t = 7 #4≡ 0 0118	10 - 13 14= 0 0088	N = 10		
Conti	nued on next page	 	 	· · · · · · · · · · · · · · · · · · ·)))) 3)) •) •)))) 3))) 3 9)))) 9	

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
245	Petrol (07.2.2.2.1)	N = 17	N = 14	N = 6	N = 10	N = 4	N = 10	N = 13	N = 15	N = 11	N = 1
		ata 0.0217	a ^t a= 0.0124	<u>ൂ†</u> 3= 0.6640	&[†]å= 0.0500	ઢ⁺ å= 0.0184	<u>a⁺a</u> = 0.0660	∦ å= 0.0932	å ^t å= 0.1093	ata 0.0142	a ^t a= 0.0139
246	Lubricants (07.2.2.4.1)	N = 32	N = 13	N = 20	N = 4	N = 7	N = 8	N = 21	N = 12	N = 14	
		⊉⁺ å= 0.0028	å⁺å = 0.0023	a⁺a = 0.0270	&⁺ å= 0.0034	&∱ \$= 0.0027	ઢ⁺ å= 0.0073	∡⁺ å= 0.0064	a ^t a= 0.0046	å⁺å = 0.0033	
247	Motor maintenance,	N = 43	N = 19	N = 2	N = 7		N = 9	N = 13	N = 22	N = 35	
	repair and other service	<u>a†a</u> = 0.0030	<u> </u>	<u>a†a</u> = 0.0655	<u>ઢ⁺</u> å= 0.0036		<u>ઢ†</u> å= 0.0095	<u> </u>	<u> ≰†</u> a= 0.0057	<u> </u>	
	charges (07.2.3.0.1)										
248	Parking space and other								N = 2	N = 4	
	services (07.2.3.0.4)								atha= 0.0004	atta= 0.0001	
249	Driver's lesson fees	N = 4			N = 1		N = 5	N = 2	N = 3	N = 3	N = 2
	(07.2.4.3.1)	⊉⁺ å= 0.0003			&[†]å = 0.0005		a⁺a = 0.0087	<u>≰†</u> å= 0.0026	&⁺ å= 0.0003	&∱ å= 0.0001	a∱a= 0.0001
250	Bus and trotro fares	N = 17	N = 11	N = 42	N = 9	N = 3	N = 17	N = 4	N = 16	N = 24	N = 6
	(07.3.2.1.2)	≵⁺ å= 0.1697	a∱a= 0.2013	a∱a = 2.6705	&⁺å= 0.1318	ata 0.2583	a⁺a= 0.5111	&⁺ å= 0.1257	⊉[†]å = 0.0388	a∱a= 0.0180	ata 0.0304
251	Taxi fares (07.3.2.2.1)	N = 7	N = 9		N = 7	N = 3	N = 17	N = 2	N = 2	N = 7	
		&⁺ å= 0.0710	ઢ⁺ å= 0.0539		&⁺å = 0.0395	&⁺ å= 0.0723	&⁺å= 0.0730	&⁺ å= 0.0593	a^ta= 0.0073	a∱a= 0.0008	
252	Car hiring (07.3.2.2.2)	N = 1					N = 8				N = 1
		∦ 1 = 0.0483					∦ tata 1.0251				<u></u> ≰†a= 0.0002
253	Cost of travel by air	N = 6		N = 10			N = 2		N = 1		
	(07.3.3.1.1)	∦ tata 10.0034		ൂ∱a= 0.2092			a⁺a= 0.0154		a ^t a= 0.0046		
254	Cost of travel by ferries				N = 4						
	and canoes (07.3.4.0.1)				<u> </u> ⊈ ¹ a= 0.0032						
255	Postal services	N = 8	N = 16		N = 3		N = 3	N = 9	N = 8	N = 11	N = 3
	(07.4.1.1.1)	≵[†]å= 0.0038	<u>a†a</u> = 0.0036		<u> </u> ⊈†a= 0.0036		å †a= 0.0263	<u></u> ≰†a= 0.0243	± ¹ a= 0.0093	<u>a†a</u> = 0.0003	$x^{h_{a}} = 0.0011$
256	Cost Of luggage and	N = 2									
	items transported	ata 0.0017									
	unaccompanied										
	(07.4.1.2.1)										
257	Telephones handset	N = 2	N = 1				N = 1	N = 1	N = 1		
	(08.1.1.0.1)	₫⁺ å= 0.0029	&⁺ å= 0.0031				a⁺a = 0.0041	<u> ≰†</u> å= 0.0020	&[†]å = 0.0010		
258	Mobile phones	N = 155	N = 40	N = 13	N = 34	N = 17	N = 35	N = 69	N = 32	N = 32	N = 19
	(08.1.2.0.1)	∡⁺ å= 0.0928	a†a = 0.0768	a†a= 0.4979	ata = 0.0518	ઢ⁺ å= 0.0902	∡⁺ å= 0.0962	&⁺ å= 0.0540	&⁺ å= 0.0339	a†a= 0.0119	<u>ઢ⁺</u> å= 0.0034
259	Personal computers	N = 23	N = 11	N = 13	N = 4	N = 1	N = 15	N = 3	N = 4	N = 14	
	(desktop and notebook)	<u>a†a</u> = 0.0198	<u>a†a</u> = 0.0123	a†a= 0.1711	<u>ઢ†å</u> = 0.0079	<u> ≰†</u> a= 0.0154	a⁺a = 0.0214	<u> ≰†</u> å= 0.0047	<u> ≰†</u> a= 0.0032	<u>a†a</u> = 0.0002	
	(08.1.3.1.1)										
260	Other electronic	N = 14	N = 7	N = 12	N = 11	N = 5	N = 30	N = 14	N = 12	N = 9	N = 3
	information processing	<u> ઢ†</u> а= 0.0075	&⁺ å= 0.0133	<u>ઢ†</u> å= 0.0439	<u> ≰†</u> a= 0.0071	&⁺å= 0.0103	a⁺a = 0.0162	<u> </u>	<u>a</u> ⁺a= 0.0020	<u>ઢ†</u> å= 0.0010	a ^t a= 0.0010
	products (08.1.3.2.1)										
261	Radios DVD players, etc	N = 10	N = 12	N = 27	N = 13	N = 13	N = 28	N = 17	N = 8	N = 12	N = 1
	(08.1.4.0.1)	<u> ≰†</u> a= 0.0759	<u> ≰†</u> a = 0.0494	<u>a†a</u> = 0.3014	<u>a</u> †a= 0.0307	<u> </u>	a ¹a= 0.1410	<u></u> &†a= 0.0317	<u> ≰†</u> a= 0.0226	<u> </u>	<u> ≰†</u> a= 0.0023
262	Prepaid phone card (incl.							N = 7			
	SMS and data bundles)							<u> </u> ≰1 ± 0.0845			
	(08.3.2.0.1)		:				:		:	:	
263	Other communication	N = 2	N II	N = 1	N = 2	N = 2	N = 7	N = 6	N N N	N = 8	
	charges (internet) (08.3.3.0.1)	<u>ઢ†</u> å= 0.0015	≰†± = 0.0029	<u> ४†</u> ४= 0.1614	≰†å = 0.0017	åtå= 0.0033	≰ta= 0.0332	≰†±= 0.0250	ઢ⁺ å= 0.0088	<u>ઢ†</u> ∎= 0.0049	
Cont	tinued on next page										

	+	10/04040	Contur!	Cupator Acces	1/0/40	Loctors	Achout.	Ducan Aboto	Nouthous		10000 10004
	IIIII	Mestelli	Cellfial	חובמובו אררומ	VUILA	Edstern	ASIIdILL	DI UI BAII dI U			
264	Repair of phones and fax	N = 61	N = 22		N = 10		N = 6	N = 72	N = 6	N = 1	N = 8
	machines (08.3.5.0.1)	a†a= 0.0191	a∱a = 0.0202		⊉⁺ å= 0.0082		ઢ⁺ å= 0.0226	ata 0.0093	&⁺å= 0.0043	&∱ \$= 0.0010	ઢ⁺ å= 0.0006
265	Equipment for sport,	N = 6			N = 3	N = 1	N = 7	N = 1	N = 9	N = 3	
	camping and open-air	&⁺ å= 0.0020			ઢ⁺ å= 0.0043	a ^t å= 0.0009	&[†]å = 0.0005	a ^t a= 0.0002	&[†]å = 0.0011	ઢ⁺ å= 0.0004	
	recreation (09.2.2.2.1)										
266	Gardens, plants and				N = 1		N = 3	N = 1	N = 1		
	glowers (09.3.1.2.1)				a ^t a= 0.0046		&⁺ å= 0.0024	a ^t a= 0.0002	&[†]å= 0.0002		
267	Pets and related products	N = 2		N = 10	N = 1	N = 2	N = 11	N = 2	N = 4	N = 2	N = 1
	(09.3.2.2.2)	ata = 0.0014		ata 0.0124	a ^t a= 0.0046	ઢ⁺å= 0.0032	a∱a= 0.0024	ata 0.0002	ata 0.0040	a∱a= 0.0001	ata 0.0000
268	Games of chance	N = 3	N = 3			N = 1	N = 4		N = 1		
	(09.4.6.3.1)	<u> </u>	∦ 1/3 ± 0.0587			<u> ∦</u> å= 0.0165	<u>a†a</u> = 0.0093		<u> </u>		
269	Cinema/cultural services						N = 5	N = 1		N = 1	
	(09.6.1.0.1)						<u> </u> ⊈†∄= 0.2375	<u></u> ⊈†∆= 0.0234		<u> </u> ⊈†3= 0.0085	
270	Musical instrument	N = 19				N = 1	N = 9	N = 5	N = 3	N = 2	
	(09.6.1.0.2)	<u> </u>				<u> </u> ⊈†3= 0.0804	<u> a†a</u> = 0.0606	<u>a</u> †a= 0.0066	<u> ≰†</u> a= 0.0289	<u> ≵†</u> å= 0.0022	
271	English textbook	N = 11	N = 10	N = 20	N = 8	N = 20	N = 13	N = 18	N = 18	N = 10	N = 6
	(09.7.1.1.1)	<u> ≵†</u> å= 0.0333	a † a = 0.0757	<u>≰†</u> a= 0.3481	<u> </u>	<u> </u> # ¹ / ₄ = 0.1085	<u>a†a</u> = 0.1371	<u></u> ⊈†å= 0.0130	<u> </u> ⊈† <u>a</u> = 0.0403	<u> ≵†</u> å= 0.0061	<u></u> ≰†a= 0.0004
272	Mathematical textbook	N = 17	N = 10	N = 10	N = 6	N = 13	N = 9	N = 18	N = 14	N = 10	N = 6
	(09.7.1.1.2)	<u>a†a</u> = 0.0371	a † a = 0.0823	<u></u> ≰†å= 0.1090	<u> </u>	<u>a†a</u> = 0.0240	<u> </u> ± <u></u> 443	<u></u> ⊈†å= 0.0120	<u> ≰†</u> a= 0.0546	<u>a†a</u> = 0.0066	&[†]a = 0.0005
273	Dictionary (09.7.1.1.3)	N = 13	N = 4	N = 14	N = 4	N = 8	N = 7	N = 13	N = 8	N = 6	N = 4
		å⁺å = 0.0030	<u> </u> ≰†± 0.0060	&⁺å= 0.0357	a ^t a= 0.0069	<u>ൂ†</u> å= 0.0182	<u>a†a</u> = 0.0118	a ^t a= 0.0037	&⁺å= 0.0032	<u>ൂ†</u> å= 0.0005	atha = 0.0000
274	Newspapers and	N = 16	N = 12				N = 8	N = 12	N = 11	N = 7	
	periodicals (09.7.2.1.1)	<u> </u>	<u> </u> ≰†3 = 0.0025				<u> </u>	<u></u> ⊈†å= 0.0032	<u> </u>	<u>a†a</u> = 0.0001	
275	Stationery and drawing	N = 39	N = 36	N = 14	N = 34	N = 23	N = 62	N = 48	N = 30	N = 48	N = 25
	materials (09.7.4.0.1)	<u> </u>	å⁺å = 0.0062	<u> </u> ⊈†±= 0.0240	å⁺å= 0.0035	<u> </u> \$ [†] \$= 0.0129	<u></u> ≰†a= 0.0084	<u></u> ⊈†å= 0.0013	<u></u> ⊈†å= 0.0106	<u>a†</u> a= 0.0126	<u> </u> ⊈†å= 0.0039
276	Other stationary	N = 21	N = 20	N = 12	N = 12	N = 18	N = 43	N = 26	N = 15	N = 27	N = 13
	materials (09.7.4.0.2)	ata = 0.0043	ata = 0.0076	ata = 0.0415	a ^t a= 0.0049	ઢ⁺ å= 0.0143	<u> </u> ≰†்≴= 0.0042	a [†] a= 0.0010	ata 0.0074	a∱a= 0.0109	&⁺ å= 0.0018
277	Pre-primary and primary	N = 46	N = 30	N = 8	N = 26		N = 6	N = 20	N = 19	N = 34	N = 3
	education (10.1.0.2.1)	a†a = 0.0940	∡⁺ å= 0.0642	ata = 0.6274	⊉⁺ å= 0.0477		ઢ⁺ å= 0.2954	ata 0.0404	&⁺å= 0.0450	&∱ å= 0.0189	&⁺ å= 0.0164
278	Public/private secondary	N = 23	N = 19	N = 12	N = 41	N = 6	N = 9	N = 24	N = 32	N = 42	N = 6
	school fees (SSS)	<u> ≰†</u> a= 0.1297	a†a 0.0989	<u> ≰†</u> a= 0.8240	<u> ≰†</u> a= 0.0745	<u>a†a</u> = 0.2079	<u>⊾†</u> å= 0.3455	<u> </u> ≰†±= 0.0719	<u></u> ≰†a= 0.0670	<u> ≵†å</u> = 0.0296	<u> </u>
	(10.2.0.0.1)										
279	Post-secondary						N = 1		N = 2		
	non-tertiary education (10.3.0.0.1)						<u>⊾†</u> a= 0.0549		<u>⊮†</u> a= 0.0145		
280	University fees	N = 6	N = 9	N = 10	N = 3		N = 11	N = 7		N = 7	
	(10.4.0.0.1)	<u></u> ≰†å= 0.0970	₫† å= 0.0778	≰† a= 0.4981	≵†å= 0.0768		<u></u> ≰†å= 0.2285	<u></u> ≰†≵= 0.0403		<u>≰†</u> å= 0.0187	
281	Education not definable	N = 12	N = 7		N = 7	N = 14	N = 12	N = 1	N = 2	N = 12	
	by level (10.5.0.9.1)	<u> </u>	∦ 1 = 0.0061		å⁺å= 0.0053	<u>a†</u> a= 0.0141	<u>a†</u> a= 0.1848	a [†] å= 0.0090	<u></u> ≰†å= 0.0036	<u> </u> ⊈†3= 0.0034	
282	Restaurants, cafes and	N = 4	N = 2		N = 15		N = 14	N = 5			N = 1
	the like (11.1.1.1.2)	<u> </u>	&∱ a= 0.0354		<u> </u>		<u> ≰†</u> å= 0.0545	<u> </u>			<u> </u>
283	Accommodation (hotel)	N = 6	N = 8		N = 11	N = 29	N = 8	N = 11	N = 14	N = 9	N = 7
	(11.2.0.3.1)	ata = 0.1701	a†a = 0.1283		a∱a= 0.0702	a∱a= 0.2642	⊾⁺ 1= 0.3354	a†a= 0.1391	<u> ≰†</u> a= 0.0637	a∱a= 0.0492	&∱ å= 0.0134
284	Hostel dormitory	N = 1	N = 2		N = 1		N = 3				
	accommodation	<u> ≰†</u> a= 0.0878	ढ⁺ å= 0.1064		<u>a</u> ta= 0.0491		<u> </u>				
	(7.5.0.2.11)										
Cont	inued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahato	Northern	Upper East	Upper West
285	Life insurance (12.1.1.0.1)	N = 1					N = 3				
		<u>a†a</u> = 0.0118					<u> </u> ⊈†±= 0.0018				
286	Insurance connected				N = 6		N = 2			N = 1	
	with health (12.1.2.0.1)				№ [†] a= 0.0013		≰† å= 0.0484			⊉[†]å = 0.0025	
287	Insurance connected with	N = 6	N = 5			N = 1	N = 1	N = 11			
	transport (12.1.4.0.1)	<u></u> ≰†å= 0.0039	a † a = 0.0058			å⁺å= 0.0384	₫ 1⁄4 0.0025	<u>≰†</u> å= 0.0139			
288	Other financial services	N = 3	N = 3				N = 3	N = 1		N = 7	
	(including mobile money)	å⁺å = 0.0028	å [†] å= 0.0170				<u>a⁺a</u> = 0.0166	å [†] å= 0.0081		₫¹å= 0.0037	
	(12.2.9.9.1)										
289	Electric appliances for	N = 1	N = 3			N = 1	N = 7		N = 2		N = 1
	personal care (13.1.1.1.1)	∡ł a= 0.0011	ata 0.0019			ata= 0.0179	ata 0.0003		a ^t a= 0.0003		at a= 0.0004
290	Toilet rolls (13.1.2.0.0)	N = 38	N = 48	N = 26	N = 27	N = 15	N = 88	N = 30	N = 22	N = 35	N = 11
		<u>a†a</u> = 0.0069	≵† å= 0.0094	a∱ a= 0.0544	⊉† å= 0.0016	<u>a†a</u> = 0.0098	<u>≰†</u> å= 0.0112	<u>≰†</u> å= 0.0034	<u> ≰†</u> å= 0.0007	<u></u> ⊈† <u>a</u> = 0.0004	a [†] a= 0.0003
291	Sanitary pad (tampon)	N = 30	N = 18	N = 32	N = 15	N = 8	N = 51	N = 31	N = 14	N = 21	N = 9
	(13.1.2.0.1)	<u></u> ⊈†å= 0.0081	å⁺å = 0.0113	≵⁺ å= 0.0542	å⁺å= 0.0061	<u> ≰†</u> a= 0.0142	<u> </u>	<u> </u>	&⁺ å= 0.0027	<u> </u>	± ¹ a= 0.0009
292	Baby diapers and wipes	N = 2			N = 9		N = 8				
	(13.1.2.0.2)	<u> ≰†</u> a= 0.0034			<u> ≰†å</u> = 0.0038		<u> ≰†</u> å= 0.0117				
293	Bathing/toilet soap	N = 65	N = 56	N = 167	N = 47	N = 36	N = 76	N = 77	N = 40	N = 54	N = 67
	(13.1.2.0.3)	⊉† å= 0.0336	⊉⁺ å= 0.0268	≵∱ a= 0.0974	⊉[†] a= 0.0107	⊉† å= 0.0318	ata= 0.0449	≵†å = 0.0192	a⁺a = 0.0247	≵∱ a= 0.0047	ata 0.0080
294	Skin powder (talcum)	N = 27	N = 15	N = 25	N = 10	N = 11	N = 37	N = 7	N = 11	N = 16	N = 8
	(13.1.2.0.4)	±ła= 0.0010	⊉⁺ å= 0.0015	∦ th= 0.0033	⊉[†] \$= 0.0010	⊉† å= 0.0023	≵[†]å= 0.0026	∦ tata 0.0013	⊉[†]å= 0.0010	ൂ†å= 0.0016	∦ tata 1.0054
295	Disposable razor	N = 20	N = 27	N = 26	N = 13	N = 4	N = 53	N = 30	N = 17	N = 26	N = 10
	(13.1.2.0.5)	<u> ≰†</u> 3= 0.0015	⊉⁺ å= 0.0012	∦ tata 1.0063	ata 0.0015	<u> </u> ⊈t <u>a</u> = 0.0026	&[†]å= 0.0028	±4±∎ 0.0009	⊉[†]å = 0.0010	≵∱ \$= 0.0002	≵¹a= 0.0011
296	Bodv lotion/cream	N = 15	N = 15	N = 29	N = 6	N = 11	N = 43	N = 10	N = 14	N = 14	N = 7
	(13.1.2.0.6)	that 0.0097 ±4	a ^t a = 0.0086	<u>a†a</u> = 0.0236	<u></u> ≰†å= 0.0076	å [†] å= 0.0131	<u> ≰†</u> a= 0.0159	<u>a</u> †₄= 0.0089	<u>≰†</u> å= 0.0127	<u>a†a</u> = 0.0057	<u>x†</u> 3= 0.0010
297	Deodorant (13.1.2.0.7)	N = 28	N = 21	N = 54	N = 22	N = 15	N = 61	N = 20	N = 14	N = 27	N = 6
		<u></u> ≰†±= 0.0041	≵† a= 0.0063	<u>a†a</u> = 0.0335	<u></u> ≰†å= 0.0020	<u> ≵†</u> å= 0.0045	a†a= 0.0097	<u></u> ≰†a= 0.0013	å⁺å= 0.002 3	₫† å= 0.0004	<u></u> ⊈†å= 0.0004
298	Toothpaste (13.1.2.0.8)	N = 54	N = 53	N = 112	N = 42	N = 25	N = 138	N = 81	N = 57	N = 48	N = 35
		<u> ≰†</u> 3= 0.0134	⊉[†]å = 0.0161	<u> ≰†</u> å= 0.0559	&[†]å= 0.0073	a†a= 0.0180	a ^t a= 0.0289	&⁺ å= 0.0114	a[†]a= 0.0040	<u> </u> ≰†±= 0.0028	∦ th = 0.0029
299	Leather wallet	N = 1	N = 1				N = 1		N = 2		
	(13.1.2.0.9)	a ^t a = 0.0006	a ^t a= 0.0017				a ^t a= 0.0004		a ^t a= 0.0027		
300	Lady hairdressing	N = 52	N = 74	N = 33	N = 53	N = 63	N = 57	N = 65	N = 59	N = 65	N = 30
	(13.1.3.1.1)	&⁺ å= 0.0146	⊉⁺ å= 0.0220	<u></u> ≰†å= 0.1625	ઢ⁺å= 0.0095	<u>a†a</u> = 0.0192	a∱a= 0.0418	&⁺ å= 0.0140	&⁺å= 0.0050	∡⁺ å= 0.0036	ata 0.0010
301	Men's haircut (13.1.3.1.2)	N = 11	N = 10	N = 3	N = 10	N = 19	N = 15	N = 19	N = 14	N = 13	N = 8
		<u> ≰†</u> a= 0.0050	≵† a 0.0039	<u>a†a</u> = 0.0073	<u>a</u> †a= 0.0076	<u>a†a</u> = 0.0128	a⁺a = 0.0210	<u> ≰†</u> å= 0.0063	ઢ⁺ å= 0.0041	⊉⁺å= 0.0012	a¹a 0.0007
302	Mesh (human/synthetic)	N = 30	N = 24		N = 16	N = 21	N = 22	N = 5	N = 23	N = 22	N = 4
	(13.1.3.1.3)	<u>⊾†</u> a= 0.0048	a ^t a = 0.0088		ઢ⁺å= 0.0024	a†a= 0.0109	a ^t a= 0.0095	&⁺ å= 0.0040	a ^t a= 0.0019	∡⁺ å= 0.0003	a∱a= 0.0006
303	Jewellery (13.2.1.1.1)	N = 2			N = 1		N = 5				N = 1
		<u> </u>			ata 0.0032		a ^t a= 0.0076				∦ the below be a straight the
304	Watches (13.2.1.1.2)	N = 3	N = 18				N = 17	N = 1	N = 5		N = 1
		a ^t a = 0.0050	⊉⁺ å= 0.0029				∡⁺ å= 0.0060	&⁺ å= 0.0033	&⁺ å= 0.0010		a∱a= 0.0000
305	Printing of picture	N = 4				N = 2	N = 1	N = 6	N = 2	N = 8	
	(13.2.2.0.1)	a [†] a = 0.0006				&∱ å= 0.0004	&[†]& = 0.0005	&∱ å= 0.0002	a ^t a 0.0009	∡⁺ å= 0.0003	
306	Other personal effects	N = 9	N = 8	N = 4	N = 8	N = 8	N = 38	N = 4	N = 6	N = 12	N = 1
	(13.2.9.1.2)	&[†]å = 0.0016	å⁺å = 0.0021	<u>a†a</u> = 0.0042	<u>a</u> †a= 0.0005	<u>a</u> †a= 0.0013	å⁺å= 0.0044	<u></u> ≰†å= 0.0004	± ¹ a= 0.0010	<u>a⁺a</u> = 0.0005	± ¹ a = 0.0000
Conti	inued on next page										

	ltem	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
307	Other services n.e.c.	N = 21	N = 25	N = 2	N = 7	N = 6	N = 22	N = 26	N = 21	N = 41	N = 4
	(13.9.0.9.2)	&⁺ å= 0.0025	&[†]å = 0.0030	&∱ \$= 0.0299	a ^t a= 0.0019	<u></u> ≰∱ a = 0.0046	&∱ \$= 0.0077	a⁺a = 0.0018	a⁺a = 0.0010	a ^t a= 0.0006	⊉∱ a= 0.0003

	Region	New 16 Regions	Market name	Urbanicity
1	Western	Western	Takoradi	Urban
2		Western North	Akontombra	Rural
3		Western	Half Assini	Rural
4		Western North	Sefwi Bekwai	Rural
5		Western	Manso Amanfi	Rural
c	Control	Cantral	Cana Canat	L lub e e
0 7	Central	Central	Cape Coast Mankassim	Urban
/				Rural
8			Nyankomase Anenkro	Rural
9			Bawjiase	Rurai
10	Greater Accra	Greater Accra	Accra Makola	Urban
11			Tema	Urban
12			Kaneshi	Urban
13			Madina	Urban
14			Big Ada	Rural
15	Fastern	Fastern	Koforidua	Urban
16	Lastern	Lustern	Nkawkaw	Urban
17			Adeiso	Rural
18				Rural
19			New Abirem	Rural
10				
20	Volta	Volta	Но	Urban
21			Kpando Torkor	Rural
22			Akatsi	Rural
23			Agbozume	Rural
24	Ashanti	Ashanti	Kumasi	Urban
25	Ashanti	Ashanti	Abofour	Rural
26				Rural
27			Nsuta	Rural
28			New Edubiase	Rural
29			Kunsu	Rural
_				
30	Brong Ahafo	Brong Ahafo	Sunyani	Urban
31		Bono East	Techiman	Urban
32		Ahafo Region	Goaso	Rural
33		Brong Ahafo	Subinso	Rural
34			Amanten	Rural
35	Northern	Northern	Tamale	Urban
36			Bimbilla	Rural
37		Savanah	Bole	Rural
38		Northern	Walewale	Rural
20	Linnor Fact	Lippor Fact	Polgotongo	Urban
39	opper East	opper East	Bolgatanga	Dural
40				Rural
41			poligo-206	Kurai
42	Upper West	Upper West	Wa	Urban
43			Tumu	Rural
44			Nandom	Rural

Table A.5 44 markets by Region

Colophon

Publisher Ghana Statistical Service Head Office, P. O. Box GP 1098, Head Office Building, Location: Finance Close, Accra, Ghana.

Information Email: info@statsghana.gov.gh fax +233-302-664304 Via contact form: http://www.statsghana.gov.gh © Ghana Statistical Service, Accra 2020.