



MALDIVES BUREAU OF STATISTICS

Ministry of National Planning,
Housing & Infrastructure



A GUIDE TO THE CONSUMER PRICE INDEX OF MALDIVES 2022

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CHAPTER 1: INTRODUCTION

CPI – A WIDELY USED ECONOMIC INDICATOR RELEASED MONTHLY

The Consumer Price Index (CPI) is one of the most important key economic indicators of Maldives. It measures the general increase in the price level of goods and services purchased by households. Hence, it may be useful to estimate the effect on household's budgets. The CPI is widely used measure of inflation and used as a proxy by government as well as monetary authorities in measuring economic stability. With the increase in globalization further importance is given to the CPI for international comparability of economic performance and adjustment of trade contracts. Hence, the scope of the CPI is more widened and critical to be monitored.

The CPI is compiled by the Maldives Bureau of Statistics on a monthly basis and is timely published on the last Monday of the month following the end of the reference period. The publication of the CPI is uploaded to the MBS website with detailed analysis, graphs and tables both in English as well as in local language (Dhivehi) is available on website <http://statisticsmaldives.gov.mv/cpi/>.

CPI NOW COMPRISES 5 LINKED SERIES

The CPI was initially compiled in 1985 using weights from 1983 with assistance from the International Monetary Fund (IMF) and has continued to be published since then without any discontinuity. Each time the CPI is rebased, current series is linked with the old series. Therefore, the CPI now comprises of 5 linked series i.e. 1995, 2004, 2012, 2016, and 2019.

THE GUIDE

This guide is intended to provide a broad overview of the methodology and calculation of the CPI and assist general users to understand how to use the CPI. With the rebasing of the CPI to November 2022, the CPI has been updated to reflect more up-to-date weighting pattern and composition of goods and

services. It also includes improved methods for pricing electricity and water and continued improvement of the rent survey that are highlighted in this guide.

ACKNOWLEDGEMENT

Improvements to the CPI is crucial and changes are essential to be in line with the international best practices. We acknowledge the guidance of Mr. Brian E. Graf in making essential improvements in the new CPI series. His assistance was provided to MBS from IMF South Asia Regional Training and Technical Assistance Center (SARTTAC).

CHAPTER 2: WHAT IS THE CPI?

CPI measures price change of a fixed basket of goods

The new CPI basket consist of 307 items which is broadly representative of the expenditures of households of Maldives. Prices are monitored monthly of this fixed basket of goods and services which enables to see the percentage increase/decrease in prices over time by households. Simply speaking if you were to go shopping and put important items in a basket and purchase them, you would be able to see changes in prices if you were to monitor the same basket of items in the next month. Hence, it's important to follow the same items each month to monitor pure price change. Likewise, the process of price collection of a fixed basket in the CPI have a similar idea.

CPI reference population is all private households in the capital city and 4 major islands

The population coverage of the CPI includes all households in Maldives. The expenditure of all households was used to develop the updated CPI weights. Price collection is restricted to the capital city and 4 major islands. Even though, ideally it is desirable to collect prices on all islands, this is not practical due to the resource constraints that limits the statistical office to collect prices from all inhabited islands. Moreover, all the items in the basket may not be available and there is a pattern for most residents in islands to

purchase major household items from the capital city or from bigger islands nearby. Thus, under the circumstances these 4 major islands and capital city are considered to be a good representation of the national CPI of Maldives.

Reference period index is 100

In the index reference period, the price of CPI is expressed as an index and is assigned a value of 100. November 2022 is considered to be the reference month and index is expressed at this month as 100.00 so that it can be compared with the next month price. For example: if index is 105 in April 2019, it means that compared to March there is on average a 5% increase in prices. Likewise, if on April 2019 index is 95, it means that there is a 5% decrease in price compared to the reference month.

CPI measures price movements

It is important to note that CPI does not measure price levels (changes in MVR amounts) but it measures only price movement's i.e percentage changes. Hence, you cannot directly compare index of one category of goods with the other category of goods and say that it's more cheap or expensive. It is a common misconception for users to interpret CPI figures as actual prices. For example, if the index of Fish is 105 and index of clothing is 107 in one month, you cannot conclude that price of clothing is higher than fish in that month. Rather it means that percentage increase in price of clothing is higher than the percentage increase in clothing compared to the reference period.

CPI is not a cost-of-living index

There is tendency of users to see the CPI as a cost of living index. In reality CPI is not a cost of living index and this a misconception. Theoretically, cost of living index measures price changes experienced by consumers to maintain a certain standard of living. For instance, if the price of a good that consumer has increased then they will move to cheaper substitutes and hence, there will be a change in price relation of goods. For example, if consumer is indifferent in using butter and margarine then in the case of price increase in butter compared to margarine, consumer may switch from butter to margarine.

Hence, to compute a cost of living index a wider range of information regarding consumers taste, behavior, preferences and many other data are required. And such data will not be available for the whole of Maldivian population. Thus, in CPI we follow the concept of fixed basket of goods and services rather than the concept used in a cost of living index.

How is the CPI used

The CPI is used as a macroeconomic indicator and for adjusting salaries, contracts and welfare payments

The CPI affects almost all Maldivians because of the many ways in which it is used. The two most common uses of the CPI are:

- As a macroeconomic indicator. The CPI, and other index series derived from CPI data, is used by the Government, central bank and businesses to monitor and evaluate levels of inflation in the Maldivian economy. Inflation and inflationary expectations play a major role in determining various aspects of Government and central banks' economic policy, and in the business and investment decisions of private firms and individuals.
- The value of many types of fixed payments such as social welfare benefits, construction contracts can be reduced over time when prices rise. The CPI may be used to adjust these payments to counter the effects of inflation. This process is referred to as 'indexation'. Indexation arrangements are also often applied to rental agreements, insurance coverage and welfare payments.

There are different price indices available

The CPI is the best-known price index; but is not the ONLY one produced by Maldives Bureau of Statistics. Examples of another price index include:

- Producer Price Index

Having determined that price index is required for a particular application it is important to carefully consider the range of available indexes and select the index which best meets the specific requirement.

While Maldives Bureau of Statistics can provide technical and statistical guidance, it does not provide advice on indexation practices and it cannot tell users which index they should use. These are matters for users to determine.

CPI Basket of goods and services

CPI basket based on HIES 2019 data

The CPI basket ideally should represent consumer spending habits. There may be substantial changes to consumer spending patterns over time due to changes in the economy and lifestyles of the people. Therefore, it is essential to reflect these changes in the CPI basket. Its common practice to identify representative items from Household Income Expenditure Survey. Hence, a sample of goods and services were selected using the HIES 2019 data. Also, weights were assigned using HIES 2019 expenditures for the items of goods and services in the basket for the index reference period November 2022. Initial CPI weights were validated, and adjusted as necessary, using estimates of household final consumption expenditure data from the national accounts.

A representative CPI basket

In principle, the CPI basket should include all goods and services used by consumers. However, in practice it is neither feasible nor necessary to include all items used by consumers for mainly two reasons. Firstly, because we are calculating price movements and similar items will have similar movements in prices. Secondly, selecting representative items will serve to identify price changes of a wider range of goods/services.

It is important that CPI represents pure price changes rather than quantity or quality changes and to include all representative consumer goods and services. The following factors may be considered in ensuring this:

- To keep the representative basket of goods and services fixed

- To ensure price collectors collect price for same specifications each month to avoid quality and quantity changes.
- Include all items that are bought by consumers with an associated retail price with no distinction between “luxury” or “necessity” good or service.
- Include all consumer goods without giving consideration to moral or social judgement. For example, betel leaves may be considered as morally unacceptable by some societies. However, it should still be included if used by consumers.
- Replace items that are evolving (mainly technological items) and goods that are permanently unavailable.

CPI Divisions

The COICOP classification 2018 has been used since the 2016 CPI update. COICOP 2018 has 13 major divisions accordingly:

- Food and non-alcoholic beverages
- Alcoholic beverages, tobacco and aracanut
- Clothing and footwear
- Housing, water, electricity and other fuels
- Furnishing, household equipment’s, carpets and floor coverings
- Health
- Transport
- Information and communication
- Recreation, sport and culture
- Education services
- Restaurants and accommodation services
- Insurance and financial services
- Personal care, social protection and miscellaneous goods and services

These 13 divisions are further divided into 40 sub-divisions. Products and services are grouped considering their end use or depending on how close substitute it is. The sub-divisions are further broken down into 80 classes and again into 136 expenditure classes. See Appendix 2 for a complete

hierarchy of these breakdowns with their relative importance. Indexes are computed at all of these levels which are aggregated upwards to arrive at the overall index. It is possible to compile indexes to meet the specific needs of a country. For instance, in Maldives we produce index excluding fish and other analytical series deemed to be useful.

The relative importance of Items in CPI basket

The expenditure derived from HIES for each item in a class is compared to the total expenditure of Maldives. These helps to derive the relative importance or weights for items in the CPI basket. Weights helps identify how a price change of a particular item effects the overall index. For example, two items in the basket namely fish and chicken may have the same (5%) increase in price. However, the rise in price of fish may have a greater impact because Maldivians on an average spend more on fish rather than on chicken. Therefore, the weight associated to fish in the index compilation will be higher compared to that of chicken. Without these weights all items will be given same importance. Which does not make sense or capture the reality as people spend more on some items compared to others.

CPI weights

The items in the CPI basket are reviewed to ensure that representative weights are attached to it in CPI compilations. Through times spending patterns change due to changes in income, distribution of population, changes in taste and fashion, technological changes and quality and availability of goods and services. Also amount spent in different parts of country may also change. One major process undertaken to reflect these changes is to rebase CPI weights using the most recent Household Income and Expenditure Survey (HIES).

HIES is used to distribute expenditure to different CPI divisions, sub-divisions, classes and expenditure classes. HIES expenditure was adjusted to remove some anomalies and those expenditures that are out of scope of CPI. For instance, HIES included consumption abroad which had to be removed since Maldives follows the domestic concept in CPI compilation. Also, spending for any business purposes and those spending on major renovations to dwellings were removed from CPI weights computations. These adjusted weights were finally used to distribute within different divisions of CPI.

It is important to note that the CPI weights show relative expenditures of typical households not a particular type or size of household. Thus, weights represent the average expenditure of households. See Appendix 2 for breakdown of CPI relative weights according COICOP groups.

Weights of expenditure classes are fixed

Weights are expressed as expenditure shares. These expenditure shares are fixed. However, because weights are expressed as expenditures the relative expenditures change over time due to changes in relative prices.

Underlying quantities below expenditure classes is varied

Quantities, or sizes, below the expenditure classes are not fixed and thus can be varied. For example, quantity of milk sold in different outlets may differ. These quantity changes reflect changes in purchasing patterns in different outlets by consumers. These changes do not affect the index levels as weights are not assigned below the expenditure classes.

Updating of weights

The last update of the CPI weights was based on HIES 2016 and currently the CPI weights are updated based on HIES 2019 expenditure. It is normal practice to update the CPI weights every 5 years. But whenever a new HIES is conducted the CPI weights can be updated accordingly. After the CPI is rebased, it is published as a new series. However, linkages can be done to the previous series. Nevertheless, the past series will not be computed again. Its common trend to see less spending on basics and more on leisure and technological products when a country is moving up the ladder of development. This is reflected in the new weights as well.

Collecting prices for CPI

The price collectors in Male' and the four islands are Maldives Bureau of Statistics staff that are trained for price collection. Although, few items are collected by administrative sources, telephone and websites, most prices are collected by personal visits to outlets to get first hand prices.

CPI covers different types of outlets

CPI covers typical retail outlets where consumers would purchase goods and services. These outlets vary from corner shops, markets, restaurants, educational institutions, business entities etc. Special consideration is given to geographically cover different types of outlets in different areas to reflect the spending of all consumers. There is a fixed schedule to follow in price collection so that a particular outlet is visited around the same time of each month to continue consistency in price collection.

CPI is based on over 10,000 price quotations

Most of the items in the CPI are collected on a monthly basis. However, items such as fish which have volatility in prices, are collected twice a week. The MBS staff surveyed to identify the most popular variety and brand when selecting items to price. This takes into accounts different consumption patterns in different islands and includes specific brands sold in each outlet. Maldives imports most of the items and same variety may not be available each month. Therefore, it's important to take detailed specification to ensure we are comparing "like with like" each month and avoid quality changes. Reasons are obtained in case of significant price changes, which helps to verify data and in the analysis of index. Price quotations that are unavailable for six consecutive months are replaced and items that are permanently unavailable are replaced immediately.

In the old CPI, for both electricity and water, a sample of monthly usages were selected and priced over time. For example, different levels of electricity usage and water consumption were identified. Each month the different usage levels were priced, and these were used to calculate the elementary indexes for electricity and water.

With the new CPI (2022), the unit value approach has been implemented. With the unit value approach, data on total units consumed and total amount billed are used to calculate a unit value (per kWh of electricity or M³ for water). A major advantage of the unit value approach is that it better reflects actual prices paid by households for electricity and water. Additionally, the unit value approach reflects changes in surcharges and fees that are added or removed from bills. For example, when a fuel surcharge is added to electricity bills, the unit value approach captures this change whereas other methods can easily miss the new surcharge. This change reflects the approach recommended in the 2020 Consumer Price Index Manual.

The information and communication services such as mobile phone service have a rapid turnover in the quality characteristics. Service providers adopt different strategies and make dynamic changes in the packages offered to more customers. Thus, it has been challenging to monitor changes in prices following the matched sample approach. For instance, previously representative samples of mobile telephone service plans were selected from service providers and held constant from period to period. Each month, the selected plans were priced; however, this resulted in a flat index that did not show any price change. In reality, prices were changing from month to month as plans and offers from providers changed.

The unit value approach has also been adopted to price information and communication services. The average amount paid per unit is used to monitor the changes in price. The total amount paid and total units consumed by different subscribers is used to calculate prices for each service line (e.g. data, voice, internet, etc). Compared to the previous method, the unit value approach inherently captures changes in plans and promotions and better reflects the dynamic nature of prices for telecommunication services. However, there are limitations such as potential volatility in prices due to variations in usage (although these represent implicit price changes), greater burden on service providers to customize data for households only and providing explanations for changes.

The MBS has continued to improve the rent survey to include new areas recently developed and to expand the number of rent prices collected each month. Beginning with the 2022 CPI, 20 percent of the sample of rental units will be rotated each year. With the rotation, 20 percent of the sample will be dropped each December and will be replaced with a new sample of rental units. Sample rotation has several advantages. First, it minimizes respondent burden because the sampled unit will remain in the sample for a maximum

of five years. Second, rotation ensures that new areas are included in the sample on a more timely basis. Sample rotation also ensures a more representative sample of rental contract vinatages and new rental units.

Prices collected are what people actually pay

In CPI we are concerned about the final amount that is paid by the consumer to receive a good or service. We are not interested to know the shelf price, which may sometimes not be updated. Some shelf prices may not include taxes such as GST. But we need to include that when collecting CPI prices. Also, prices collected should be the price discounted after any subsidies paid by the government such as Asandha. Additionally, any sales price, discount price or promotion price is regarded as the final price that need to be collected as this is what's going to be paid by the consumer. No one will pay the normal price when there is a discount price. Hence, we need to collect what is actually paid by consumers.

To make sure that the prices collected are broadly representative of the consumers spending, the price of the volume seller of goods and services is taken for each location. Random revisit of the sample is done to ensure it remains representative.

Quality Changes

As a thumb rule CPI must measure only pure price changes. All other factors (quantity and quality) except price changes should be held constant. In reality, there are constant improvements in the quality of goods and services to make it more appealing for consumers. Consumers consider all the characteristics of an item before purchasing. For example when buying a shirt consumers may consider the design, the fabric, and the cotton content. If prices changes is due to any quality changes we cannot say that it's a real price change.

Quality adjustments

It's important to ensure that we are comparing same items from one time to another. When there is an improvement in the items priced, statistical adjustment is made to make sure only pure price is reflected in the index. One method used is to check which feature caused the quality to change. For example, the newer model may have an additional feature which the old one didn't. We can estimate the price of the new feature and adjust the old models price with the change.

There maybe also quantity changes in the items priced. In such a case we cannot compare prices directly. For example, canned tuna is priced in three consecutive periods (period 1, 2, and 3). The price of canned tuna in period 1, 2, 3 is MVR 20, MVR 21 and MVR 21 respectively. However, weight of canned tuna falls from 185g to 180g in period 3 (it remained the same in period 1 and 2). The price has increased from period 1 to 2 but remains the same in period 3. Nevertheless, we cannot compare the price of period 2 and 3 directly since these are not same products as there is a change in weight. Therefore, we need to make a quality adjustment. Otherwise, if we enter this data directly we are assuming it's a pure price change which is not true.

Determining the price of some quality changes are easy, while some adjustments can get really complicated. For example, changes in bus fares due to improvement in punctuality of the bus is difficult to determine. It's problematic to assign a dollar value for such changes in quality. One may even argue it's a pure price change. And some adjustments can be really complex and impossible in some cases. However, these adjustments are essential to be made to the best of knowledge.

Periodic review of the CPI

It is essential to review the CPI each time new data is available from the HIES. The expenditure data will enable to determine the changes in spending patterns, new goods and services previously not priced in CPI and changes in weights due to changes in expenditure. Additionally, this review helps to make methodological improvements and increase the coverage wherever possible.

During the review the new series is linked to the old series for continuity. This linkage is done in such a way only pure price changes are reflected in the index linking and quality and quantity changes are not reflected in the linkage of old and new basket.

How does CPI relate to you?

CPI cannot is not based on an individual consumption pattern

When CPI is published some users question the figures that are published as it does not reflect price changes individually experienced by them. CPI does not reflect changes in prices experienced by a single individual. Different peoples purchasing patterns and choices are different. Thus, it's important to understand CPI shows the average changes in prices by all resident Maldivians as a whole. You should not expect CPI to reflect changes in prices encountered by an individual person or household. CPI has a fixed basket representative of all Maldivian households. It's near to impossible that a household will purchase and use services of all items in the basket in a given month. For example, some households may use only basmati rice and other may use only normal rice. Both of these items are included in CPI as it's broadly representative of consumption pattern of Maldivian population.

Consumption pattern of households is determined using the Household Income and Expenditure Survey. The data were collected over six months, excluding Ramadan, and each household was asked to recall their consumption of the previous week for food items and a longer recalling period for non-food items (past 3 months, 6 months and year). Aggregate Expenditures of households that were collected was used to derive the CPI basket, relative importance and weights in CPI. As HIES was spread over six months it enabled to capture items purchased frequently, infrequently as well as seasonally.

Also, the geographical coverage of HIES helps to determine the spending pattern of rural as well as urban population. Thus, CPI designed in such a way that it is broadly repetitive of all the household spending patterns of Maldives.

Although CPI will not reflect the change in expenditures encountered when an individual move from one demographic make-up to other. For example, people in the old age may have higher expenditure on medical while, younger people may have more expenditure on personal care. The changes in expenditure due to demographic changes are incorporated at an aggregate level in HIES expenditures and thus reflected in CPI weights.

CPI cannot be used to measure or compare price levels

The CPI is not intended to measure the changes in price levels. Rather it shows the change in prices over time. In Maldives the prices in islands may differ compared to Male' (capital city). However, factors that influence price may be similar. Also we cannot compare price levels of Male' and islands based on the CPI. For example, if the index in Male' is 107.0 and in Hithadhoo is 105.0, we can't conclude prices in Male' are more expensive compared to Hithadhoo. Only we can say that prices has risen more in Male' than in Hithadhoo compared to March 2019.

The take away note to remember is that CPI is not designed to show the price change for an individual person, to compare price levels between islands but rather it shows the price movements of major categories of goods/services, specific items or island.

CHAPTER 3: USING THE CPI

Interpreting the index numbers

Why use index numbers?

Deriving useful price measures for single, specific items such as yellow fin tuna is relatively straightforward. An estimate of the average price per kilogram in each period is sufficient for all applications. Price change between any two periods would simply be calculated by direct reference to the respective average prices.

However, if the requirement is for a price measure that covers a number of diverse items, the calculation of a 'true' average price is both complicated and of little real meaning. For example, consider the problem of calculating and interpreting an average price for two commodities as diverse as fish and washing machines. Because of this, price measures such as the CPI are typically presented in index form.

Description of a price index

Price indices provide a suitable and reliable way of presenting price information that overcomes problems associated with averaging across diverse items. The index number for a particular period represents the average price in that period relative to the average price in some base period for which, by convention, the average price has been set to equal 100.00.

A price index number on its own has little meaning. For example, if the CPI All groups' index number of 100.2 in September says nothing more than the average price in September was 0.2% higher than the average price in the index reference period (when the index was set to 100.00). The value of index numbers stems from the fact that index numbers for any two periods can be used to directly calculate price change between the two periods.

Percentage change is different to a change in index points

Movements in indices from one period to any other period can be expressed either as changes in index points or as percentage changes. The following example illustrates these calculations for the All CPI group between the two time periods. The same procedure is applicable for any two periods.

	Index number
July 2022	100.75
Less July 2021	91.00
Change in index points	9.75
Percentage change	$9.75/91.0 \times 100 = 10.71\%$

Movements in the CPI best measured using percentage changes

For most applications, movements in price indices are best calculated and presented in terms of percentage change. Percentage change allows comparisons in movements that are independent of the level of the index. For example, a change of 2 index points when the index number is 120 is equivalent to a percentage change of 1.7%, but if the index number was 80 a change of 2 index points would be equivalent to a percentage change of 2.5% - a significantly different rate of price change. Only when evaluating change from the base period of the index will the points change numerically identical to the percentage change.

The percentage change between any two periods must be calculated, as in the above example, by direct reference to the index numbers for the two periods. Adding the individual monthly percentage changes will not result in the correct measure of long term percentage changes. That is the percentage change between July of the previous year and the July of current year typically will not equal the sum of the 12 month percentage changes. The error becomes more noticeable the longer the period covered and the greater the rate of change in the index. This can readily be verified by starting with an index of 100 and increasing it by 10% (multiplying by 1.1) each period. After four periods, the index will equal 146.4 delivering an annual percentage change of 46.4%, not the 40% given by adding the twelve-monthly changes of 10%.

Calculating index numbers for periods longer than months

Although the CPI is compiled and published as a series of monthly index numbers, its use is not restricted to the measurement of price change between particular months. Because a monthly index number can be interpreted as representing the average price during the month, index numbers for periods spanning more than one month can be calculated as the simple (arithmetic) average of the relevant monthly indices. For example, an index for the year 2022 would be calculated as the arithmetic average of the index numbers for January to December of 2022.

This characteristic of index numbers is particularly useful. It allows for comparison of average prices in one year (calendar or financial) with those in any other year. It also enables prices in say the current month compared with the average prevailing in some prior year.

Analysing the CPI

The monthly change in the Overall CPI represents the weighted price change of all the items included in the CPI. While publication of index numbers and percentage changes for components of the CPI are useful in their own right, these data are often not sufficient to enable important contributors to overall price change to be reliably identified. What is required is some measure that encapsulates both an item's price change and its relative importance in the index.

Points contribution and points contribution change

If the Overall CPI index number is thought of as being derived as the weighted average of indexes for all its component items, the index number for a component multiplied by its weight to the Overall index results in what is called its 'points contribution'. It follows that the change in a component item's points contribution from one period to the next provides a direct measure of the contribution to the change in the Overall CPI index resulting from the change in that component's price.

Information on points contribution and points contribution change (or points change) is of immense value when analysing sources of price change and for answering 'what if' type questions.

Data rounding conventions

To ensure consistency in the data produced from the CPI, it is necessary to adopt a set of consistent rounding conventions or rules for the calculation and presentation of data. The conventions strike a balance between maximising the usefulness of the data for analytical purposes and retaining a sense of the underlying precision of the estimates. These conventions need to be taken into account when using CPI data for analytical or other special purposes.

Index numbers are always published to a reference base of 100.0. Index numbers and percentage changes are always published to two decimal places, with the percentage changes being calculated from the index numbers. Points contributions are also published to two decimal places, with points contributions change being calculated from the points contributions. Index numbers for periods longer than a month (e.g. Annual) are calculated as the simple arithmetic average of the relevant monthly index numbers.

Some examples of using CPI

Question 1: What would MVR200 in 2010 be worth in the September 2022?

Response 1: This question is best interpreted as asking ‘How much need to be spent in September 2022 to purchase what could be purchased in 2010 for MVR 200?’ As no specific commodity is mentioned, what is required is a measure comparing the general level of prices in September 2022 with the general level of prices in the year 2010. The Overall CPI would be an appropriate choice.

Because the CPI index is available for the year 2010 the only step is to multiply the initial MVR amount by the ratio of the index for September 2022 to the average index for 2010.

The answer is then given by:

$$\text{MVR}200 \times 94.03/72.61 = \text{MVR } 259$$

Question 2: What would be the impact of a 10% increase in fish prices on the Overall CPI in October 2022?

Response 2: Two pieces of information are required to answer this question; the overall index number for October 2022 (100.75), and the October 2022 points contribution for fish (0.07).

An increase in fish prices of 10% would increase fish points contribution by $0.07 \times 10/100 = 0.007$ index points which would result in an overall index number of 100.76 for October 2022, an increase of 0.007%.

Question 3: How does the CPI reflect changes in electricity prices?

Response 3: The Overall CPI measures price change for all goods and services. The example below sets out the price change for electricity compared to the overall CPI over the last 5 years. This shows that the price of electricity has increased much slower than the headline number.

	Overall Index	Electricity Index
August 2017	66.6	94.77
August 2021	91.00	95.94
August 2022	100.75	100.00

%age change – 1 year ago (overall)
 $(100.75-91.00)/91.00 \times 100 = 10.7\%$

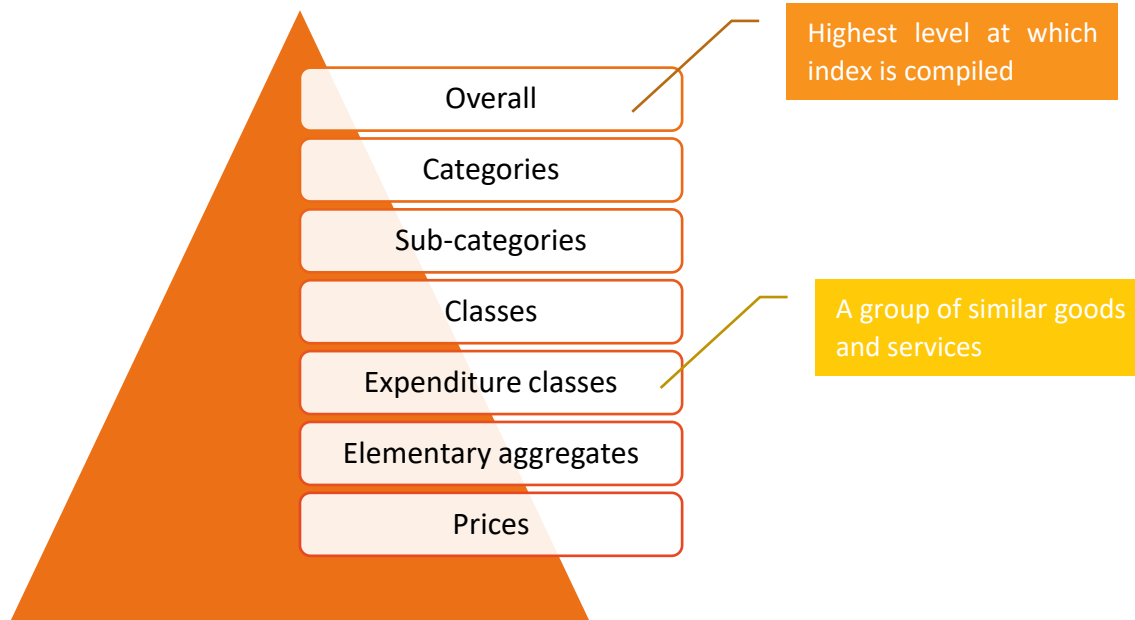
%age change – 1 year ago (electricity)
 $(100.00-95.94)/95.94 \times 100 = 4.2\%$

%age change – 5 year ago (overall)
 $(100.75-66.60)/66.60 \times 100 = 51.3\%$

%age change – 5 year ago (electricity)

$(100.00-94.77)/94.77 \times 100 = 5.5\%$ **CHAPTER 4: CALCULATING THE**

CPI



Overview

The compilation of the CPI mainly comprises of four stages to determine the average change in cost of the fixed basket of goods and services. These stages include:

- Dividing the total expenditures into categories, sub-categories, classes and expenditure classes using COICOP and identifying items to be priced at the expenditure class level.
- Collection of prices for the items identified
- Calculating price movements
- Compiling average change in the cost of the basket

Identifying items to price

Firstly, using COICOP the expenditures got from the HIES 2019 was divided to categories, sub-categories, classes and expenditure classes. It's not feasible to price all the items under different classes. Therefore, a cut off sample of 5% was used to choose different expenditure classes. However, items that had a high expenditure but was problematic was not selected to price. For example, private car had a very high expenditure but it's an item that don't have a readily available market or shop to price that item.

A balance have to be kept when choosing items to price depending on the availability of resources and what's also representative. For illustration, a stylized example for the Rice expenditure class of the CPI is shown below:

For example, based on information reported in the HIES, the annual expenditure on rice by all households in Male' is estimated at MVR244 thousand. Furthermore, breakdown on different rice is obtained from HIES. The results are shown in the following table.

Type of rice	Market share	HIES data (a)
1 Rice, semi- or wholly m	40	969,865
2 Rice flakes, aveli	0	682
3 Rice, baasmathi	21	509,659
4 Rice, Red	2	38,206
5 Rice, normal	38	924,321
Total Rice	100	2,442,733

(a) after adjusting to inflation

The next stage in the process involves determining the rice for which price samples should be collected. This is generally not simple. In reaching decisions about precisely which items to include in price samples, the prices statisticians need to strike a balance between the cost of data collection (and processing) and the accuracy of the index. Factors taken into account include the relative significance of individual items, the extent to which different items are likely to exhibit similar price behavior, and any practical problems associated with measuring prices to constant quality. In this example with rice, it is decided to price 2 number of rice, and hence 3 number of rice is left unpriced.

Generally, a reasonable outcome where selection is a must would be to decide to construct price samples for some specific items (based on their significance) and separate price samples would not be constructed for items which have relatively small market shares. Generally, price samples would also not be constructed for items which would prove difficult to price due to constant quality differences. For example, kitchen cupboard set is an item that has a very high expenditure share. However, this item is very much customized to the needs of the buyer and not readily available to price. Therefore, it was also not chosen to price as these items will be subject to constant quality changes.

Elementary aggregates must have a price sample

The items for which it is decided to construct specific price samples are referred to as ‘elementary aggregates’. The expenditure aggregates for the items that are not to be explicitly priced are reallocated across the elementary aggregates in such a way as to best preserve the representativeness of the price samples. In this example, 2 number of rice is selected to be priced and hence allocation is done in two stages. First, the expenditure aggregate for unselected items would be allocated to similar items. The expenditure aggregates of items which are dissimilar would be allocated, on a proportional basis, across the selected items elementary aggregates.

Type of rice	Expenditure aggregates			Elementary aggregate
	Initial	Stage 1	Stage 2	
1 Rice, semi- or wholly m	969,865			
2 Rice flakes, aveli	682	682		
3 Rice, baasmathi	509,659	811,042	759,073	Basmati rice
4 Rice, Red	38,206	38,206		
5 Rice, normal	924,321	1,470,912	1,376,661	Long grain rice
Total Rice	2,442,733	2,320,842	2,135,734	

The rationale for this allocation is as follows. The price behavior for all items 2 and 4 (Rice flakes, aveli, Rice, Red) is likely to be best represented by the average price behaviour of all other rice.

Identifying outlets to price

When the items to be priced are chosen it's important to identify outlets for the basket of goods to be priced. When choosing outlets to price it's important to not only to price large shops but include corner shops, markets, large shops etc. It's also important that the outlets chosen are geographically dispersed so that all consumers spending patterns can be inclusive in CPI calculations. Pricing items in online shops are becoming recently popular. However, because of its complexity online shops are not included yet in pricing.

Collecting price data

Selecting respondents

A survey is conducted by the MBS staff to check from which outlets items are available and mostly bought by consumers. This enables the price collectors to identify the respondents for different items. Each month the prices are collected from the same respondents for the same items. These outlets identified are representative outlets across each island.

Selecting items to price

From the outlets to be priced, MBS price staffs will identify the items to be priced. The items priced is specific to outlets. Outlets are asked how the items are mostly sold. For instance, whether a specific measurement is more sold or whether a specific brand or flavor is sold is more sold. This is to capture the most representative way items are purchased by consumers. This method ensures a more broadly representative sample of varieties and minimizes the number of missing prices. In Maldives, the

availability of varieties differs from one outlet to the next. Selecting varieties within outlets ensures a more complete set of prices each month. For example, basmati rice could be collected in outlet in 1 kg while it may be possible that in another outlet 5kg is more frequently sold. Thus items may differ from outlet to outlet.

Price monitoring is done frequently and checks are done for any quality changes. The detailed SPD's allow to check for any changes. Monthly prices are compared with the previous month's price and any large changes are re-checked and explanations noted on the price collection form for confirmation.

Estimating of price movements for elementary aggregates

Price samples are constructed for the sole purpose of estimating price movements for each elementary aggregate. These estimates of price movements are required to revalue the expenditure aggregates to current period prices in much the same way as illustrated in the example on using price indexes (see 3.15–3.17 above). This is achieved by applying the period-to-period price movement to the previous period's expenditure aggregate for each elementary aggregate. It provides an estimate of the cost of acquiring the base period quantity of the elementary aggregate in the current month.

There is no single correct method for calculating the price movement for a sample of observations.

Different methods involve choices as to:

- Whether the price movement for the sample is calculated as the average of each period's prices or as the average of price movements between periods for each item;
- The type of average used.

The two commonly used forms of average are the arithmetic mean and the geometric mean. For a sample of n price observations, the arithmetic mean is the sum of the individual prices divided by the number of observations, while the geometric mean is the n th root of the product of the prices. For example, the arithmetic mean of 4 and 9 is 6.5, while the geometric mean is 6 (the geometric mean is always less than or equal to the arithmetic mean).

Geometric mean is the preferred method

The method of calculating price change at the elementary aggregate level is important to the accuracy of the price index. The arithmetic average of price relatives (APR) approach has been shown to be more prone to (upward) bias than the other two methods. In line with various overseas countries, the MBS is using the geometric mean formula for calculating elementary aggregate index numbers, for most of the elementary aggregates. Where the geometric mean is not appropriate the relative of arithmetic mean prices (RAP) is used, specifically in health. The reasoning behind using geometric means is outlined below.

Geometric mean allows for substitution

At the elementary aggregate level of the index it is usually impractical to assign a specific weight to each individual price observation. The geometric mean applies weights such that the expenditure shares of each observation are the same in each period. In other words, the geometric mean formula implicitly assumes households buy less (more) of items that become more (less) expensive relative to the other items in the sample. The other formulas assume equal quantities in both periods, (RAP) or equal expenditures in the first period (APR), with quantities being inversely proportional to first period prices. The geometric mean therefore appears to provide a better representation of household purchasing behavior than the alternative formula in those elementary aggregates where there is likely to be high substitutability in consumption within the price sample.

Geometric mean not appropriate for all elementary aggregates

The geometric mean cannot be used to calculate the average price in all elementary aggregates. It cannot be used in cases where the price could be zero (i.e. the cost of a good or service is fully subsidised by the government).

Calculating the current cost of the basket

Once price movements are calculated for each elementary aggregate, they can be used to derive the expenditure aggregates that are then summed to derive the current cost of the basket. It is from the expenditure aggregates that index numbers are calculated at any level of the index. The stylized example above is continued to show the process for the rice expenditure class.

	Elementary aggregate	Price movement	Elementary aggregate
	Period 1	Period 1 to Period 2(a)	Period 2
Elementary aggregate			
Basmati rice	868,185	0.9929	862,060
Long grain rice	1,574,548	1.0031	1,579,408
Total Rice	2,442,733		2,441,467

(a) Geometric mean of price relatives

The expenditure aggregates are revalued to period 2 prices by applying the movements between period 1 and period 2. The expenditure aggregate for the expenditure class rice is the sum of the expenditure aggregates for the elementary aggregates comprising the expenditure class. Summing the elementary aggregates says that in period 2 it would cost 2,441,467 MVR to buy the volume of rice in period 1 that cost 2,442,733 MVR. The price change for rice between period 1 and 2 is simply the ratio of these expenditure aggregates, that is, a price decrease of -0.1% ($2,441,467 / 2,442,733$). Thus, if the price index for rice was 100.0 in period 1, it would be 99.9 in period 2.

The derivation of the expenditure class movement as shown above is mathematically equivalent to a weighted average of the price movements for the individual elementary aggregates. The same formula is used at higher levels of the index.

Similar procedures are used to derive price movements at higher levels of the CPI. For example, the current period cost of purchasing items in the Bread and cereal products sub-group of the CPI is obtained by summing the current period expenditure aggregates of the expenditure classes rice, bread, pasta products, pastry-cook products and other cereal products. The ratio of the current and previous period expenditure aggregates for this sub-group gives the price movement for the sub-group.

Points contributions are also calculated using the expenditure aggregates. The current period points contribution of a CPI component, for example the expenditure class rice, is the current period expenditure aggregate for rice relative to the expenditure aggregate for the overall CPI multiplied by the current period overall index number.

The CPI publication does not show the expenditure aggregates, but rather the index numbers derived from the expenditure aggregates. Expenditure aggregates vary considerably in size and showing them would make the publication difficult to read and interpret. The published index numbers and points contributions are a convenient presentation of the information.

APPENDIX

Appendix 1

COICOP major groups, sub-groups and expenditure classes
TOTAL CONSUMPTION EXPENDITURE
FOOD AND BEVERAGES (98 ITEMS)
FOOD (96 ITEMS)
Normal Rice
Basmathi Rice
Wheat Flour
Whole Wheat Flour
Bread(sliced, loaf)
Buns
Frozen Paratta
Cream crackers
Marie Biscuits
Other crackers
Hard buns, Faaroshi, hikki banas
Packet Cakes
Corn flakes
Chocos
Oats
Pasta
Noodles
Cake mix
Frozen Beef
Frozen Chicken
Sausage
Tuna
Reef Fish
Tuna curry cut
Frozen Seafood
Dried fish (Hikimas)
Smoked Fish

Fish paste
Thelli faiy
Masmirus
Sambol
Canned fish
Condensed milk
Milk powder
Coconut cream
Cheese (ND)
Yoghurt
Milo powder
Milk packet flavoured
Eggs
Olive Oil
Cooking Oil
Butter
Margerine
Bananas
Mango
Papaya/ Falho
Young Coconut, Kurumba
Passion fruit
Coconut (dry nut), Kaashi
Lime
Oranges
Apples
Grapes
Watermelon/ karaa
Dates- Dried
Lettuce
Green Chilly
Githeyo Mirus
Cucumber
Egg plant, bashi
Tomato
Pumpkin, Barabo
Capsicum
Bell pepper
Beans, tholhi
Carrot
Garlic
Onion
Potatoes

Sweet potatoes
Mugu
Baked beans canned
Tomato paste
Sugar - White
Diabetic sugar
Honey
Peanut butter
Chocolate Bars
Ice cream
Cup Noodles
Baby milk powder
Baby food
Soya sauce
Oyster sauce
Tomato Sauce
Chilli Sauce
Chilli & garlic Sauce
Salt
Ginger
Dried Chilli Packed
Curry Powder Packed
Spices of different varieties (eg. Tumeric/ coriander/ cumin/ fennel/pepper/ cloves/ cardamon etc..)
curry leave, Hikandi faiy
Pandan leave, Raaba faiy
Chicken ring & alike
BEVERAGES (8 ITEMS)
Ready made Fruit Juices
Tang Juice & alike
Coffee
Coffee mix(3 in 1 & alike)
Tea bags
Mineral Water
Carbonated soft drinks
Energy Drinks
NON-FOOD (197 ITEMS)
TOBACCO & ARACANUTS (4 ITEMS)
Cigarettes
Aracanut
Supari
Killi
CLOTHING (21 ITEMS)

Clothing materials
School Uniform material
Men's long pants
Mens Jeans
Men's shorts
Men's shirt
Men's T-Shirt
Men's Underwear
Women's pants
Womens Jeans
Women's top
Women's underwear
Women's dresses
Children's clothing
baby clothes
Sports Uniform- girls/boys
Sports uniform
School socks
Scarf
School uniform tailoring cost
Tailoring fee
FOOTWEAR (9 ITEMS)
Sports shoes men
Shoes - men
Slipper - men
Sandal
Sports shoes women
Shoes-women
School shoes - boys
School shoes - girls
Children's shoes
HOUSING (10 ITEMS)
One bedroom
Two bedroom
Three bedroom
Cement
Tiles
Roofing sheet
Building blocks
Toilet bowl
Water-based paint
Scews/Nails/Door Hinge
Labor cost for repair

Water bill
Waste disposal
Electricity bill
Gas
FURNISHING (37 ITEMS)
Bed
Wardrobe
Mattress
Sofa set
Dining table set
Bedroom set
Bedsheet set/material
Towel
Refrigerator
Freezer
Oven
Gas Stove
Microwave
Washing machine Automatic
Washing machine manual
Air condition
Rice Cooker
Mixer
Blender
Fan
consumer goods repair
Spoon/folk
Plates
Drinking Glass
Cups including saucers
Pots and pans
Water pump
Light Bulb
Dish wash
Toilet cleaner
Air Freshner
Floor cleaner
Detergent
Fabric Softner
Sheltox/ Hitspray
Domestic servant full-time
Domestic servant Casual
HEALTH (16 ITEMS)

Colestrol medicine
Diabetic Medication
Blood Pressure medication
Heart Medication
Pain Killer medication
Cough Syrup
Panadaol
Digene
Strepsil
Balm
Citrizen
Vitamin C
contact lense and solution
Dentist consultation fees from private hospitals
General Doctor outpatient
Specialist Doctor outpatient
hospital stay inpatient
lab diagnostics outpatient
TRANSPORT (12 ITEMS)
Motor cycle
Bicycle
Diesel Fuel
Petrol
Vehicle cleaning
Bus Tickets
Taxi Fare
Pickup Fare
Domestic Airfare
International Airfare
Ferry Tickets
Other Sea Transport
INFORMATION AND COMMUNICATION (8 ITEMS)
Mobile phone
Computer
Laptop
Tablets
Flat screen TV
Mobile phone bill
Internet bill
Cable TV and like
RECREATION (11 ITEMS)
Game software
Toys

Pets
Aerobics/Gym and alike
Past paper books
Story books
Pencils
Pens
Gum bottles
Colouring materials (colour pencils, crayons, paints etc)
Note books
EDUCATION (10 ITEMS)
Pre-school fees
Primary school fee
Secondary school fee
Tertiary educational course fee
Pre school tuition fee
Primary school tuition fee
Secondary school Tuition fee
Higher school tuition fee
Other classes fees (ELC etc)
Quruan Class fees
RESTAURANTS AND ACCOMMODATION (14 ITEMS)
Shorteats Kulhi
Shorteats Foni
Sandwich
Pizza
Burger
Continental breakfast
Breakfast
Lunch pack
Noodles/ Pasta meals
Salads and alike
Buffet meals
Coffee
Aracanuts in restaurant/café
Cigarettes in restaurant cafe
ACCOMMODATION SERVICES (1 ITEMS)
Accommodation services
INSURANCE (3 ITEMS)
Health Insurance
House insurance
Vehicle insurance
MISCELLANEOUS GOODS AND SERVICES (40 ITEMS)
Tooth brush

Razor /blades
Shampoo
conditioners
baby shampoo
Soap
shower gel
baby shower gel
Tooth paste
Face wash
Cologne
Perfume
Hair cream/gel/,moose and alike
Lotion
Baby lotion
Hair Oil
Face cream
Lipstick
Diapers/ Nappy
Sanitary pads, Tampon,
White powder/ pink powder
Tissue
Hand wash
Deodorant
Body Spray
Hair cut in salon
Barber services
Eyebrow threading
Facial cleaning
Hair coloring
Ladies Makeup
Manicure
Wrist watch
School bags
Interval bags
Hand bag
Wallet
Purse
Sunglasses
Printing

Appendix 2

COICOP major groups, sub-groups and expenditure classes	Republic	Male'	Atolls
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TOTAL CONSUMPTION EXPENDITURE			
1FOOD AND NON-ALCOHOLIC BEVERAGES	23.49	18.30	31.27
FOOD	20.11	15.43	27.11
Cereals and cereal products (ND)	2.67	2.18	3.39
Cereals (ND)	0.51	0.45	0.61
Normal Rice	0.30	0.23	0.41
Basmathi Rice	0.21	0.22	0.20
Flour of cereals (ND)	0.20	0.14	0.30
Wheat Flour	0.14	0.09	0.22
Whole Wheat Flour	0.06	0.05	0.08
Bread and bakery products (ND)	1.42	1.10	1.90
Bread(sliced, loaf)	0.43	0.42	0.44
Buns	0.09	0.05	0.15
Frozen Paratta	0.09	0.10	0.08
Cream crackers	0.13	0.08	0.20
Marie Biscuits	0.17	0.11	0.26
Other crackers	0.31	0.20	0.47
Hard buns, Faaroshi, hikki banas	0.08	0.04	0.12
Packet Cakes	0.13	0.09	0.19
Breakfast cereals (ND)	0.21	0.25	0.16
Corn flakes	0.07	0.08	0.05
Chocos	0.07	0.08	0.05
Oats	0.07	0.08	0.05
Macaroni, noodles, couscous and similar pasta products (ND)	0.27	0.22	0.34
Pasta	0.09	0.09	0.10
Noodles	0.17	0.13	0.24
Other cereal and grain mill products (ND)	0.05	0.03	0.08
Cake mix	0.05	0.03	0.08
Meat (ND)	1.00	0.89	1.17
Meat, fresh, chilled or frozen (ND)	0.82	0.73	0.96
Frozen Beef	0.06	0.05	0.07
Frozen Chicken	0.76	0.68	0.89
Meat, offal, blood and other parts of slaughtered animals' preparations (ND)	0.18	0.16	0.21
Sausage	0.18	0.16	0.21
Fish (ND)	4.49	3.11	6.55
Fish, live, fresh, chilled or frozen (ND)	2.07	1.27	3.28
Tuna	0.89	0.50	1.47
Reef Fish	0.99	0.59	1.59
Tuna curry cut	0.11	0.12	0.09
Frozen Seafood	0.09	0.05	0.14
Fish, dried, salted, in brine or smoked (ND)	0.54	0.38	0.78
Dried fish (Hikimas)	0.08	0.06	0.12

Smoked Fish	0.46	0.33	0.66
Fish preparations (ND)	1.88	1.46	2.49
Fish paste	0.60	0.42	0.87
Thelli faiy	0.12	0.10	0.15
Masmirus	0.12	0.10	0.15
Sambol	0.12	0.10	0.15
Canned fish	0.91	0.74	1.18
Milk, other dairy products and eggs (ND)	2.85	2.38	3.54
Other milk and cream (ND)	1.07	0.77	1.52
Condensed milk	0.18	0.12	0.27
Milk powder	0.73	0.48	1.11
Coconut cream	0.16	0.17	0.14
Cheese (ND)	0.11	0.12	0.11
Cheese (ND)	0.11	0.12	0.11
Yoghurt and similar products (ND)	0.35	0.33	0.38
Yoghurt	0.35	0.33	0.38
Milk-based dessert and beverages (ND)	0.87	0.80	0.97
Milo powder	0.23	0.15	0.35
Milk packet flavoured	0.63	0.64	0.62
Eggs (ND)	0.45	0.36	0.57
Eggs	0.45	0.36	0.57
Oils and fats (ND)	0.40	0.31	0.53
Vegetable oils (ND)	0.31	0.22	0.43
Olive Oil	0.08	0.07	0.09
Cooking Oil	0.23	0.16	0.35
Butter and other fats and oils derived from milk (ND)	0.09	0.09	0.09
Butter	0.05	0.04	0.05
Margerine	0.05	0.04	0.05
Fruit (ND)	3.07	2.17	4.43
Dates, figs and tropical fruits, fresh (ND)	1.81	1.15	2.79
Bananas	0.47	0.38	0.60
Mango	0.49	0.31	0.76
Papaya/ Falho	0.12	0.09	0.17
Young Coconut, Kurumba	0.22	0.08	0.43
Passion fruit	0.07	0.05	0.11
Coconut (dry nut), Kaashi	0.43	0.24	0.72
Citrus fruits, fresh (ND)	0.46	0.35	0.64
Lime	0.22	0.16	0.32
Oranges	0.24	0.19	0.32
Stone fruits and pome fruits, fresh (ND)	0.30	0.24	0.38
Apples	0.30	0.24	0.38
Other fruits, fresh (ND)	0.36	0.30	0.45
Grapes	0.20	0.18	0.23

Watermelon/ karaa	0.16	0.12	0.22
Fruit, dried and dehydrated (ND)	0.14	0.12	0.17
Dates- Dried	0.14	0.12	0.17
Vegetables(ND)	2.58	2.00	3.46
Leafy or stem vegetables, fresh or chilled (ND)	0.09	0.09	0.09
Lettuce	0.09	0.09	0.09
Fruit-bearing vegetables, fresh or chilled (ND)	1.04	0.83	1.35
Green Chilly	0.19	0.13	0.29
Githeyo Mirus	0.19	0.13	0.29
Cucumber	0.20	0.18	0.23
Egg plant, bashi	0.06	0.05	0.07
Tomato	0.13	0.13	0.15
Pumpkin, Barabo	0.13	0.11	0.16
Capsicum	0.06	0.05	0.08
Bell pepper	0.06	0.05	0.08
Green leguminous vegetables, fresh or chilled (ND)	0.11	0.11	0.10
Beans, tholhi	0.11	0.11	0.10
Other vegetables, fresh or chilled (ND)	0.79	0.55	1.15
Carrot	0.17	0.13	0.24
Garlic	0.13	0.09	0.19
Onion	0.49	0.34	0.72
Tubers, plantains and cooking bananas (ND)	0.19	0.14	0.28
Potatoes	0.12	0.09	0.16
Sweet potatoes	0.08	0.05	0.11
Pulses (ND)	0.08	0.06	0.11
Mugu	0.08	0.06	0.11
Vegetables, tubers, plantains, cooking bananas and pulses ground and other preparations (ND)	0.28	0.21	0.39
Baked beans canned	0.12	0.09	0.15
Tomato paste	0.16	0.11	0.24
Sugar, jam, honey, chocolate and confectionery(ND)	1.24	1.10	1.44
Cane and beet sugar (ND)	0.06	0.03	0.10
Sugar - White	0.06	0.03	0.10
Other sugar and sugar substitutes	0.07	0.05	0.10
Diabetic sugar	0.07	0.05	0.10
Jams, fruit jellies, marmalades, fruit purée and pastes, honey (ND)	0.14	0.12	0.17
Honey	0.14	0.12	0.17
Nut purée, nut butter and nut pastes (ND)	0.20	0.19	0.21
Peanut butter	0.20	0.19	0.21
Chocolate, cocoa, and cocoa-based food products (ND)	0.51	0.46	0.57
Chocolate Bars	0.51	0.46	0.57
Ice, ice cream and sorbet (ND)	0.27	0.25	0.30
Ice cream	0.27	0.25	0.30

Food products n.e.c (ND)	1.81	1.29	2.59
Ready-made food (ND)	0.17	0.13	0.24
Cup Noodles	0.17	0.13	0.24
Baby food (ND)	0.27	0.17	0.40
Baby milk powder	0.18	0.12	0.28
Baby food	0.08	0.06	0.12
Salt, condiments and sauces (ND)	0.21	0.16	0.28
Soya sauce	0.03	0.02	0.04
Oyster sauce	0.03	0.02	0.04
Tomato Sauce	0.04	0.03	0.05
Chilli Sauce	0.04	0.03	0.05
Chilli & garlic Sauce	0.04	0.03	0.05
Salt	0.04	0.03	0.05
Spices, culinary herbs and seeds (ND)	0.83	0.56	1.24
Ginger	0.06	0.04	0.09
Dried Chilli Packed	0.16	0.10	0.24
Curry Powder Packed	0.19	0.15	0.25
Spices of different varieties (eg. Tumeric/ coriander/ cumin/ fennel/pepper/ cloves/ cardamon etc..)	0.14	0.10	0.19
curry leave, Hikandi faiy	0.11	0.06	0.18
Pandan leave, Raaba faiy	0.17	0.10	0.28
Other food products n.e.c. (ND)	0.33	0.27	0.43
Chicken ring & alike	0.33	0.27	0.43
NON-ALCOHOLIC BEVERAGES	3.38	2.87	4.15
Fruit and vegetable juices (ND)	0.49	0.36	0.69
Fruit and vegetable juices (ND)	0.49	0.36	0.69
Ready made Fruit Juices	0.18	0.20	0.15
Tang Juice & alike	0.31	0.16	0.55
Coffee and coffee substitutes (ND)	0.49	0.38	0.66
Coffee and coffee substitutes (ND)	0.49	0.38	0.66
Coffee	0.24	0.22	0.27
Coffee mix(3 in 1 & alike)	0.26	0.17	0.39
Tea, maté and other plant products for infusion (ND)	1.25	0.95	1.71
Tea, maté and other plant products for infusion (ND)	1.25	0.95	1.71
Tea bags	1.25	0.95	1.71
Water (ND)	0.90	1.01	0.73
Water (ND)	0.90	1.01	0.73
Mineral Water	0.90	1.01	0.73
Soft drinks (ND)	0.16	0.13	0.21
Soft drinks (ND)	0.16	0.13	0.21
Carbonated soft drinks	0.16	0.13	0.21
Other non-alcoholic beverages (ND)	0.08	0.03	0.15
Other non-alcoholic beverages (ND)	0.08	0.03	0.15

Energy Drinks	0.08	0.03	0.15
2.ALCOHOLIC BEVERAGES, TOBACCO AND NARCOTICS	2.00	1.54	2.68
TOBACCO	1.54	1.25	1.97
Tobacco (ND)	1.54	1.25	1.97
Cigarettes (ND)	1.54	1.25	1.97
Cigarettes	1.54	1.25	1.97
NARCOTICS	0.46	0.29	0.71
Narcotics (ND)	0.46	0.29	0.71
Narcotics (ND)	0.46	0.29	0.71
Aracanut	0.29	0.19	0.44
Supari	0.08	0.05	0.13
Killi	0.08	0.05	0.13
3.'CLOTHING AND FOOTWEAR	3.87	3.35	4.66
CLOTHING	2.87	2.50	3.42
Clothing materials (SD)	0.50	0.41	0.65
Clothing materials (SD)	0.50	0.41	0.65
Clothing materials	0.34	0.24	0.48
School Uniform material	0.17	0.16	0.17
Garments (SD)	2.01	1.84	2.27
Garments for men or boys (SD)	0.97	0.86	1.13
Men's long pants	0.19	0.17	0.22
Mens Jeans	0.19	0.17	0.22
Men's shorts	0.09	0.08	0.11
Men's shirt	0.27	0.24	0.32
Men's T-Shirt	0.18	0.16	0.21
Men's Underwear	0.05	0.04	0.06
Garments for women or girls (SD)	0.68	0.68	0.67
Women's pants	0.12	0.12	0.12
Womens Jeans	0.12	0.12	0.12
Women's top	0.20	0.20	0.20
Women's underwear	0.10	0.10	0.10
Women's dresses	0.15	0.15	0.14
Garments for infants (0 to under 2 years) (SD)	0.22	0.18	0.29
Children's clothing	0.11	0.09	0.14
baby clothes	0.11	0.09	0.14
School uniforms (SD)	0.15	0.12	0.18
Sports Uniform- girls/boys	0.07	0.06	0.09
Sports uniform	0.04	0.04	0.05
School socks	0.03	0.03	0.04
Other articles of clothing and clothing accessories (SD)	0.15	0.11	0.22
Other articles of clothing (SD)	0.15	0.11	0.22
Scarf	0.15	0.11	0.22
Cleaning, repair, tailoring and hire of clothing (S)	0.20	0.14	0.28

Repair, tailoring and hire of clothing (S)	0.20	0.14	0.28
School uniform tailoring cost	0.08	0.05	0.13
Tailoring fee	0.12	0.09	0.16
FOOTWEAR	1.00	0.85	1.23
Shoes and other footwear (SD)	1.00	0.85	1.23
Footwear for men (SD)	0.40	0.34	0.48
Sports shoes men	0.08	0.06	0.11
Shoes - men	0.16	0.16	0.16
Slipper - men	0.15	0.12	0.20
Footwear for women (SD)	0.39	0.32	0.48
Sandal	0.15	0.12	0.19
Sports shoes women	0.08	0.06	0.11
Shoes-women	0.15	0.14	0.18
Footwear for infants and children (SD)	0.22	0.19	0.28
School shoes - boys	0.07	0.06	0.09
School shoes - girls	0.07	0.06	0.09
Children's shoes	0.07	0.06	0.09
4.'HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS	25.81	35.60	11.13
ACTUAL RENTALS FOR HOUSING	16.79	27.52	0.71
Actual rentals paid by tenants for main residence (S)	16.79	27.52	0.71
Actual rentals paid by tenants for main residence (S)	16.79	27.52	0.71
One bedroom	4.20	6.88	0.18
Two bedroom	8.40	13.76	0.35
Three bedroom	4.20	6.88	0.18
MAINTENANCE, REPAIR AND SECURITY OF THE DWELLING	1.59	0.59	3.09
Security equipment and materials for the maintenance and repair of the dwelling (ND)	1.11	0.39	2.20
Materials for the maintenance and repair of the dwelling (ND)	1.11	0.39	2.20
Cement	0.11	0.01	0.27
Tiles	0.13	0.03	0.27
Roofing sheet	0.12	0.01	0.28
Building blocks	0.12	0.00	0.30
Toilet bowl	0.08	0.02	0.18
Water-based paint	0.09	0.07	0.14
Scews/Nails/Door Hinge	0.46	0.26	0.77
Services for the maintenance, repair and security of the dwelling (S)	0.48	0.20	0.89
Services for the maintenance, repair and security of the dwelling (S)	0.48	0.20	0.89
Labor cost for repair	0.48	0.20	0.89
WATER SUPPLY AND MISCELLANEOUS SERVICES RELATING TO THE DWELLING	2.14	3.19	0.56
Water supply (ND)	1.79	2.85	0.21
Water supply through network systems (ND)	1.79	2.85	0.21

Water bill	1.79	2.85	0.21
Refuse collection (S)	0.34	0.34	0.34
Refuse collection (S)	0.34	0.34	0.34
Waste disposal	0.34	0.34	0.34
ELECTRICITY, GAS AND OTHER FUELS	5.29	4.30	6.77
Electricity (ND)	4.47	3.69	5.62
Electricity (ND)	4.47	3.69	5.62
Electricity bill	4.47	3.69	5.62
Gas (ND)	0.82	0.60	1.15
Liquefied hydrocarbons (ND)	0.82	0.60	1.15
Gas	0.82	0.60	1.15
5.'FURNISHING HOUSEHOLD EQUIPMENTS. CARPETS, AND OTHER FLOOR COVERINGS	5.38	4.42	6.82
FURNITURE, FURNISHINGS, AND LOOSE CARPETS	1.28	1.18	1.44
Furniture, furnishings and loose carpets (D)	1.28	1.18	1.44
Household furniture (D)	1.28	1.18	1.44
Bed	0.16	0.18	0.14
Wardrobe	0.18	0.18	0.16
Mattress	0.13	0.11	0.16
Sofa set	0.27	0.31	0.21
Dining table set	0.07	0.07	0.06
Bedroom set	0.47	0.31	0.72
HOUSEHOLD TEXTILES	0.15	0.11	0.20
Household textiles (SD)	0.15	0.11	0.20
Bed linen and bedding (SD)	0.05	0.04	0.07
Bedsheet set/material	0.05	0.04	0.07
Table linen and bathroom linen (SD)	0.09	0.07	0.13
Towel	0.09	0.07	0.13
HOUSEHOLD APPLIANCES	2.18	1.70	2.90
Major household appliances, whether electric or not (D)	1.48	1.13	2.00
Major kitchen appliances (D)	0.41	0.35	0.50
Refrigerator	0.13	0.12	0.15
Freezer	0.13	0.12	0.15
Oven	0.04	0.03	0.05
Gas Stove	0.06	0.04	0.09
Microwave	0.04	0.03	0.05
Major laundry appliances (D)	0.33	0.26	0.44
Washing machine Automatic	0.26	0.23	0.31
Washing machine manual	0.07	0.03	0.13
Heaters, air conditioners (D)	0.74	0.53	1.06
Air condition	0.74	0.53	1.06
Small household appliances (SD)	0.34	0.23	0.51
Small appliances for cooking and processing of food (SD)	0.20	0.14	0.29

Rice Cooker	0.09	0.07	0.12
Mixer	0.06	0.04	0.10
Blender	0.04	0.02	0.06
Other small household appliances (SD)	0.15	0.10	0.22
Fan	0.15	0.10	0.22
Repair, installation and hire of household appliances (S)S	0.35	0.33	0.38
Repair, installation and hire of household appliances (S)S	0.35	0.33	0.38
consumer goods repair	0.35	0.33	0.38
GLASSWARE, TABLEWARE AND HOUSEHOLD UTENSILS	0.11	0.09	0.14
Glassware, tableware and household utensils (SD)	0.11	0.09	0.14
Cutlery, flatware and silverware (SD)	0.01	0.00	0.01
Spoon/fork	0.01	0.00	0.01
Kitchen utensils and articles (SD)	0.11	0.09	0.13
Plates	0.02	0.02	0.03
Drinking Glass	0.02	0.02	0.03
Cups including saucers	0.01	0.01	0.02
Pots and pans	0.05	0.04	0.05
TOOLS AND EQUIPMENT FOR HOUSE AND GARDEN	0.21	0.06	0.43
Motorized tools and equipment (D)	0.09	0.01	0.22
Motorized tools and equipment (D)	0.09	0.01	0.22
Water pump	0.09	0.01	0.22
Non-motorized tools and miscellaneous accessories (SD)	0.11	0.05	0.20
Miscellaneous accessories (SD)	0.11	0.05	0.20
Light Bulb	0.11	0.05	0.20
GOODS AND SERVICES FOR ROUTINE HOUSEHOLD MAINTENANCE	1.45	1.27	1.72
Non-durable household goods (ND)	1.04	0.70	1.55
Household cleaning and maintenance products (ND)	0.95	0.66	1.39
Dish wash	0.13	0.09	0.21
Toilet cleaner	0.20	0.14	0.31
Air Freshner	0.11	0.07	0.16
Floor cleaner	0.07	0.06	0.10
Detergent	0.33	0.23	0.47
Fabric Softner	0.10	0.07	0.15
Other non-durable household goods (ND)	0.09	0.04	0.16
Sheltox/ Hitspray	0.09	0.04	0.16
Domestic services and household services (S)	0.41	0.57	0.17
Domestic services by paid staff (S)	0.41	0.57	0.17
Domestic servant full-time	0.21	0.29	0.09
Domestic servant Casual	0.21	0.29	0.09
6. HEALTH	5.80	5.32	6.53
MEDICINES AND HEALTH PRODUCTS	1.72	1.57	1.94
Medicines (ND)	0.70	0.57	0.89
Medicines, vaccines and other pharmaceutical preparations (ND)	0.70	0.57	0.89

Colestrol medicine	0.11	0.09	0.14
Diabetic Medication	0.11	0.09	0.14
Blood Pressure medication	0.11	0.09	0.14
Heart Medication	0.11	0.09	0.14
Pain Killer medication	0.11	0.09	0.14
Cough Syrup	0.11	0.09	0.14
Panadaol	0.01	0.01	0.01
Digene	0.01	0.01	0.01
Strepsil	0.01	0.01	0.01
Balm	0.01	0.01	0.01
Citrizen	0.01	0.01	0.01
Vitamin C	0.01	0.01	0.01
Assistive products (D)	1.02	1.00	1.05
Assistive products for vision (D)	1.02	1.00	1.05
contact lense and solution	1.02	1.00	1.05
OUTPATIENT CARE SERVICES	2.97	2.65	3.45
Outpatient dental services (S)	0.70	0.40	1.16
Dental preventive services (S)	0.70	0.40	1.16
Dentist consultation fees from private hospitals	0.70	0.40	1.16
Other outpatient care services (S)	2.26	2.24	2.29
Outpatient curative and rehabilitative services (S)	2.26	2.24	2.29
General Doctor outpatient	0.44	0.21	0.77
Specialist Doctor outpatient	1.83	2.03	1.52
INPATIENT CARE SERVICES	0.71	0.73	0.68
Inpatient curative and rehabilitative services (S)	0.71	0.73	0.68
Inpatient curative and rehabilitative services (S)	0.71	0.73	0.68
hospital stay inpatient	0.71	0.73	0.68
OTHER HEALTH SERVICES	0.40	0.36	0.46
Diagnostic imaging services and medical laboratory services (S)	0.40	0.36	0.46
Diagnostic imaging services and medical laboratory services (S)	0.40	0.36	0.46
lab diagnostics outpatient	0.40	0.36	0.46
7.TRANSPORT	7.02	5.15	9.83
PURCHASE OF VEHICLES	2.40	2.09	2.86
Motorcycles (D)	2.31	2.07	2.68
Motorcycles (D)	2.31	2.07	2.68
Motor cycle	2.31	2.07	2.68
Bicycles (D)	0.08	0.02	0.18
Bicycles (D)	0.08	0.02	0.18
Bicycle	0.08	0.02	0.18
OPERATION OF PERSONAL TRANSPORT EQUIPMENT	0.71	0.70	0.72
Fuels and lubricants for personal transport equipment (ND)	0.61	0.62	0.60
Diesel (ND)	0.06	0.04	0.08
Diesel Fuel	0.06	0.04	0.08

Petrol (ND)	0.55	0.58	0.52
Petrol	0.55	0.58	0.52
Maintenance and repair of personal transport equipment (S)	0.10	0.08	0.12
Maintenance and repair of personal transport equipment (S)	0.10	0.08	0.12
Vehicle cleaning	0.10	0.08	0.12
PASSENGER TRANSPORT SERVICES	3.92	2.35	6.26
Passenger transport by road (S)	0.82	0.66	1.07
Passenger transport by bus and coach (S)	0.07	0.11	0.02
Bus Tickets	0.07	0.11	0.02
Passenger transport by taxi and hired car with driver (S)	0.75	0.55	1.05
Taxi Fare	0.61	0.53	0.74
Pickup Fare	0.13	0.01	0.32
Passenger transport by air (S)	1.77	1.19	2.65
Passenger transport by air, domestic (S)	1.22	0.60	2.15
Domestic Airfare	1.22	0.60	2.15
Passenger transport by air, international (S)	0.56	0.59	0.51
International Airfare	0.56	0.59	0.51
Passenger transport by sea and inland waterway (S)	1.32	0.51	2.54
Passenger transport by sea and inland waterway (S)	1.32	0.51	2.54
Ferry Tickets	0.48	0.26	0.82
Other Sea Transport	0.84	0.25	1.72
8.'INFORMATION AND COMMUNICATION	9.96	9.64	10.44
INFORMATION AND COMMUNICATION EQUIPMENT	2.57	2.58	2.55
Mobile telephone equipment (D)	1.80	1.88	1.68
Mobile telephone equipment (D)	1.80	1.88	1.68
Mobile phone	1.80	1.88	1.68
Information processing equipment (D)	0.40	0.42	0.37
Computers, laptops and tablets (D)	0.40	0.42	0.37
Computer	0.16	0.17	0.14
Laptop	0.16	0.17	0.14
Tablets	0.09	0.08	0.10
Equipment for the reception, recording and reproduction of sound and vision (D)	0.37	0.28	0.49
Equipment for the reception, recording and reproduction of sound and vision (D)	0.37	0.28	0.49
Flat screen TV	0.37	0.28	0.49
INFORMATION AND COMMUNICATION SERVICES	7.39	7.06	7.89
Mobile communication services (S)	4.35	4.19	4.59
Mobile communication services (S)	4.35	4.19	4.59
Mobile phone bill	4.35	4.19	4.59
Internet access provision services and net storage services (S)	1.84	1.85	1.82
Internet access provision services and net storage services (S)	1.84	1.85	1.82
Internet bill	1.84	1.85	1.82

Other information and communication services (S)	1.20	1.02	1.48
Subscription to audio-visual content, streaming services and rentals of audio-visual content (S)	1.20	1.02	1.48
Cable TV and like	1.20	1.02	1.48
9.'RECREATION, SPORT AND CULTURE	1.75	1.44	2.22
OTHER RECREATIONAL GOODS	0.39	0.35	0.45
Games, toys and hobbies (SD)	0.39	0.35	0.45
Video game computers, game consoles, game apps and software (SD)	0.08	0.10	0.06
Game software	0.08	0.10	0.06
Other games, toys and hobbies (SD)	0.31	0.25	0.39
Toys	0.31	0.25	0.39
GARDEN PRODUCTS AND PETS	0.13	0.13	0.14
Pets and products for pets (ND)	0.13	0.13	0.14
Purchase of pets (ND)	0.13	0.13	0.14
Pets	0.13	0.13	0.14
RECREATIONAL SERVICES	0.65	0.51	0.87
Recreational and sporting services (S)	0.65	0.51	0.87
Sporting services - practice (S)	0.65	0.51	0.87
Aerobics/Gym and alike	0.65	0.51	0.87
NEWSPAPERS, BOOKS AND STATIONERY	0.58	0.46	0.76
Books (SD)	0.20	0.20	0.21
Educational and text books (SD)	0.08	0.08	0.09
Past paper books	0.08	0.08	0.09
Other books (SD)	0.12	0.12	0.12
Story books	0.12	0.12	0.12
Stationery and drawing materials (ND)	0.38	0.26	0.55
Stationery and drawing materials (ND)	0.38	0.26	0.55
Pencils	0.03	0.02	0.05
Pens	0.07	0.06	0.10
Gum bottles	0.05	0.03	0.07
Colouring materials (colour pencils, crayons, paints etc)	0.07	0.04	0.11
Note books	0.15	0.11	0.22
10. EDUCATION SERVICES	3.94	4.54	3.06
EARLY CHILDHOOD AND PRIMARY EDUCATION	0.75	1.05	0.31
Early childhood and primary education (S)	0.75	1.05	0.31
Early childhood education (S)	0.41	0.54	0.20
Pre-school fees	0.41	0.54	0.20
Primary education (S)	0.35	0.51	0.10
Primary school fee	0.35	0.51	0.10
SECONDARY EDUCATION	0.12	0.20	0.01
Secondary education (S)	0.12	0.20	0.01
Secondary education (S)	0.12	0.20	0.01

Secondary school fee	0.12	0.20	0.01
TERTIARY EDUCATION	0.94	1.01	0.83
Tertiary education (S)	0.94	1.01	0.83
Tertiary education (S)	0.94	1.01	0.83
Tertiary educational course fee	0.94	1.01	0.83
EDUCATION NOT DEFINED BY LEVEL	2.13	2.28	1.91
Education not defined by level (S)	2.13	2.28	1.91
Tutoring (S)	1.37	1.57	1.08
Pre school tuition fee	0.08	0.06	0.11
Primary school tuition fee	0.50	0.47	0.55
Secondary school Tuition fee	0.59	0.73	0.38
Higher school tuition fee	0.20	0.30	0.04
Other education not defined by level (S)	0.76	0.71	0.83
Other classes fees (ELC etc)	0.14	0.18	0.09
Quruan Class fees	0.62	0.54	0.74
11.RESTAURANTS AND ACCOMMODATION SERVICES	5.79	6.26	5.08
FOOD AND BEVERAGE SERVING SERVICES	5.58	6.17	4.69
Restaurants, cafés and the like (S)	5.58	6.17	4.69
Restaurants, cafés and the like - with full service (S)	5.58	6.17	4.69
Shorteats Kulhi	0.52	0.45	0.63
Shorteats Foni	0.06	0.06	0.06
Sandwich	0.19	0.21	0.15
Pizza	0.69	0.74	0.62
Burger	0.14	0.18	0.08
Continental breakfast	0.16	0.22	0.07
Breakfast	0.37	0.49	0.19
Lunch pack	0.67	0.82	0.45
Noodles/ Pasta meals	0.21	0.21	0.20
Salads and alike	0.06	0.08	0.02
Buffet meals	0.20	0.29	0.06
Coffee	1.10	1.32	0.77
Araanuts in restaurant/café	0.16	0.14	0.18
Cigarettes in restaurant cafe	1.07	0.97	1.22
ACCOMMODATION SERVICES	0.21	0.10	0.38
Accommodation services (S)	0.21	0.10	0.38
Hotels, motels, inns and similar accommodation services (S)	0.21	0.10	0.38
Accommodation services	0.21	0.10	0.38
12.'INSURANCE AND FINANCIAL SERVICES	0.08	0.10	0.06
INSURANCE	0.08	0.10	0.06
Insurance connected with health (S)	0.03	0.03	0.02
Insurance connected with health (S)	0.03	0.03	0.02
Health Insurance	0.03	0.03	0.02
Insurance connected with the dwelling (S)	0.03	0.04	0.02

Insurance connected with the dwelling (S)	0.03	0.04	0.02
House insurance	0.03	0.04	0.02
Insurance connected with transport (S)	0.02	0.02	0.02
Personal transport insurance (S)	0.02	0.02	0.02
Vehicle insurance	0.02	0.02	0.02
12.PERSONAL CARE, SOCIAL PROTECTION AND MISCELLANEOUS GOODS AND SERVICES	5.10	4.35	6.23
PERSONAL CARE	4.58	3.87	5.64
Other appliances, articles and products for personal care (ND)	4.37	3.61	5.51
Other appliances, articles and products for personal care (ND)	4.37	3.61	5.51
Tooth brush	0.15	0.13	0.18
Razor /blades	0.05	0.04	0.07
Shampoo	0.10	0.09	0.12
conditioners	0.10	0.09	0.12
baby shampoo	0.10	0.09	0.12
Soap	0.15	0.11	0.20
shower gel	0.15	0.11	0.20
baby shower gel	0.15	0.11	0.20
Tooth paste	0.20	0.15	0.27
Face wash	0.13	0.12	0.14
Cologne	0.10	0.08	0.15
Perfume	0.85	0.81	0.90
Hair cream/gel/,moose and alike	0.10	0.09	0.12
Lotion	0.14	0.11	0.19
Baby lotion	0.14	0.11	0.19
Hair Oil	0.12	0.07	0.19
Face cream	0.06	0.06	0.08
Lipstick	0.09	0.09	0.09
Diapers/ Nappy	0.52	0.36	0.76
Sanitary pads, Tampon,	0.18	0.15	0.23
White powder/ pink powder	0.08	0.06	0.13
Tissue	0.14	0.14	0.15
Hand wash	0.10	0.08	0.14
Deodorant	0.23	0.18	0.29
Body Spray	0.23	0.18	0.29
Hairdressing salons and personal grooming establishments (S)	0.21	0.26	0.13
Hairdressing (S)	0.10	0.10	0.11
Hair cut in salon	0.05	0.05	0.06
Barber services	0.05	0.05	0.06
Personal grooming treatments (S)	0.10	0.16	0.02
Eyebrow threading	0.02	0.03	0.00
Facial cleaning	0.02	0.03	0.00
Hair coloring	0.02	0.03	0.00

Ladies Makeup	0.02	0.03	0.00
Manicure	0.02	0.03	0.00
OTHER PERSONAL EFFECTS	0.44	0.40	0.50
Jewellery and watches (D)	0.15	0.14	0.16
Jewellery and watches (D)	0.15	0.14	0.16
Wrist watch	0.15	0.14	0.16
Other personal effects n.e.c. (SD)	0.30	0.26	0.35
Travel goods and articles for babies and other personal effects n.e.c. (SD)	0.30	0.26	0.35
School bags	0.05	0.05	0.06
Interval bags	0.05	0.05	0.06
Hand bag	0.03	0.03	0.03
Wallet	0.03	0.03	0.03
Purse	0.03	0.03	0.03
Sunglasses	0.10	0.08	0.13
OTHER SERVICES	0.08	0.07	0.09
Other services (S)	0.08	0.07	0.09
Other services n.e.c. (S)	0.08	0.07	0.09
Printing	0.08	0.07	0.09