STATISTICS CENTRE

Consumer Price Index

November 2015

Released Date: 14 December 2015

(Base year 2007)

Detailed by:

· Expenditure groups
· Household welfare levels
· Household type
· Regions

Introduction

The Consumer Price Index (CPI) is an important statistical indicator for the purposes of planning and research in various disciplines. Statistics centers and agencies in different countries consistently compile these indices, which depend on the prices of a basket of goods and services consumed by the household sector. The figures thus calculated constitute a time series that provides a measure of changes in the cost of living over time.

Therefore, Statistics Centre - Abu Dhabi has always taken interest in collecting the prices of those goods and services on a regular basis and publishes the indicators derived from this data, following the methodologies adopted internationally in this field.

The Price Indices Section at the Statistics Centre - Abu Dhabi compile the CPI according to households' levels of welfare and type. For the welfare level approach, the population is divided into five segments (quintiles), which represent five standard of living levels based on average annual expenditure per capita.

For the household type approach, the population is divided into three types of households as described in the results of the Household Income and Expenditure Survey (2007), namely, Citizen, Non-Citizen and Share households.

To represent all regions of the Emirate, the selected sample of items included in the Consumer Price Index basket uses actual data from the Household Income and Expenditure Survey 2007. The sample of outlets were selected to represent points of purchase for a large base of consumers all over the Emirate of Abu Dhabi, taking into consideration the geographical distribution of sources within the Emirate.

Key Points

This publication provides an analysis of the results of the CPI for the month of November 2015 with the base year 2007. In addition, the publication provides the results of the CPI by household welfare levels, household type and regions for November 2015.The main findings of this analysis are outlined below:

- The CPI decreased by 0.2% in November 2015 compared with October 2015.

- Consumer prices for households of the bottom welfare level decreased by 0.1% and the middle household welfare quintile decreased by 0.3% during November 2015 compared with October 2015, while consumer prices decreased by 0.2% for the top household welfare quintiles.

- The consumer prices for November 2015 compared with October 2015, decreased for citizen households by 0.4%, while share households decreased by 0.1%.

Consumer Price Index (CPI) for November 2015 (2007=100)

A. CPI of November 2015 compared with the CPI of October 2015

The average consumer prices decreased by 0.2% in November 2015 compared with October 2015. This overall decrease in prices between the two months reflects the net movement (increases and decreases) of consumer prices during the periods compared.

The most significant groups, which experienced decreases in prices during November 2015 compared with October 2015, were 'Transport' with 3.0% and 'Furnishings, household equipment and routine household maintenance' with 2.0%.

B. CPI by household welfare level

CPI by household welfare level for the month of November 2015 compared with October 2015
In November 2015, consumer prices decreased by 0.2% compared with October 2015. This caused decreases of 0.1% in consumer prices for households in the bottom and 0.3% in the middle welfare quintile and 0.2% for the top household quintile.

Table 1: Average CPI values by household welfare level for the months of November 2015 and October 2015

Period	Bottom level	Bottom-Middle Level	Middle Level	Top-Middle Level	Top Level
	— CPI —				
October 2015	140.9	140.2	139.0	138.1	136.1
November 2015	140.7	139.8	138.5	137.8	135.8
	— % —				
Relative Change	-0.1	-0.2	-0.3	-0.2	-0.2

Source: Statistics Centre - Abu Dhabi

C. CPI by household type

CPI by household type for the month of November 2015 compared with October 2015
The 0.2% decrease in consumer prices for November 2015 compared with October 2015, decreased consumer prices for citizens by 0.4%, while share households decreased by 0.1%.

Table 2: Average CPI values by household type during November 2015 and October 2015

Period	Citizen	Non-citizen	Share
		— CPI —	
October 2015	135.9	139.5	140.4
November 2015	135.4	139.5	140.3
		— % —	
Relative Change	-0.4	0.0	-0.1

Source: Statistics Centre - Abu Dhabi

D. CPI by region

Share of the regions in the average price change in the Emirate of Abu Dhabi for November 2015 compared with October 2015:

The decrease of 0.2% in consumer prices for November 2015 compared with October 2015, resulted from the decrease of consumer prices in the regions of Abu Dhabi, Al Ain and Al Gharbia. The decrease in the CPI in the Abu Dhabi region contributed 55.0% of the total decrease in November 2015 compared with October 2015, while the Al-Ain region contributed 24.7% and the Al Gharbia region 20.3% of the total decrease during the period.

CPI Methodology

Introduction

Statistics Centre- Abu Dhabi is the sole official body responsible for calculating and publishing the Consumer Price Index (CPI) within the Emirate of Abu Dhabi. The Centre updated the CPI base year to 2007 for both prices and weights in 2008. Weights that are used in the new CPI were calculated using the results derived from the Household Income and Expenditure Survey 2007, which was carried out in the Emirate of Abu Dhabi. The methodology used in calculating the CPI follows best international recommendations and practices in this field.

What is the Consumer Price Index?

The CPI is a tool that measures the rate of change in the prices of a basket of goods and services between two periods. The period against which prices are compared is known as the base period and the period under review is known as the comparison period.

Importance of the Consumer Price Index

The CPI provides monthly estimates on the rate of change in the prices of a consumer price basket in the Emirate of Abu Dhabi. Some of the significant utilizations of the CPI are:

- The CPI is used as an important economic indicator to calculate inflation rates. The inflation rate is a key statistic for economic policymaking and is used for adjusting payments (such as rents and wages).
- Salaries and wages are being adjusted by international entities and big corporations based on the change taking place in the CPI.
- The CPI is used as a deflator while producing national accounts at constant prices.

Updating the Consumer Price Index

The Consumer Price Index weights are updated on a regular basis once the necessary data becomes available. Usually the update takes place after releasing the results of the Household Income and Expenditure Survey, which is carried out periodically about every eight years. Updating the weights of goods and services of the CPI basket ensure that these weights represent as close as possible the current consumption pattern of households.

The last CPI update in the Emirate of Abu Dhabi took place in 2007-2008, where 2007 was regarded as the new CPI base year for both weights and prices.

1. CPI Compilation

The CPI is calculated using the Laspeyres method $CPI_L = \sum \dfrac{P_{1i}}{P_{0i}} \times W_{0i}$

Prices of goods and services of the CPI basket are collected periodically, except for the vegetables, fruits, meat, fish and chicken groups which are collected on a weekly basis due to the continuous change that occur in its prices. Rentals prices are collected quarterly, while education fee prices are collected semi- annually.

The current CPI uses 2007 as the base year in the Emirate of Abu Dhabi. The current CPI basket consists of 334 goods and services, while the consumer basket contains 760 goods and services. The new CPI included the CPI of residential units occupied by their owners; this was done by adding the weight of this item to the weight of the rented residential units followed by calculation of a single index for all rented units.

The average item price at the 'elementary group level' is calculated using the geometric mean. Regarding the price ratio and the new weight, price ratio is calculated by dividing the comparison price by the base year price, and then the new weight is calculated by multiplying the price ratio by the base year weight.

To calculate the CPI on the sub- group level, the new weight of all goods and services of the sub-group should be added and then divided by the base price of the same group. The CPI of the main groups and the general CPI are calculated using the same method.

2. Weights

The Consumer Price Index is a weighted average of the change in the price of goods and services of the CPI basket. The weight of the good or service reflects its relative importance. The weight of good (C) is calculated by dividing the total expenditure of all households on the good (C) by the total expenditure of all households on all goods and services.

The relative importance[1] of goods and services were calculated based on the results of the 2007-2008 Household Income and Expenditure Survey. Goods and services with a weight of 0.002 per cent or more were included in the CPI basket of goods and services. Goods with weights below this value were distributed proportionally among the other goods in the same group.

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[1] Relative importance of a given good or the weight of the good is the total expenditure of all households on the good divided by the total expenditure of all households on all goods and services

3. CPI basket and Consumer basket

After calculating weights and identifying goods and services representing the CPI, the 334 goods and services in the consumer basket was identified. Each item in the CPI basket is represented by one good or service or more, therefore the consumer basket is larger than the CPI basket. The CPI basket includes 760 goods and services.

4. Classifications used in the CPI

The Classification of Individual Consumption according to Purpose (COICOP) is used in the construction of the CPI. The COICOP is a United Nations classification, which is used for statistical purposes. Based on the COICOP, goods and services of the CPI basket were classified into the 12 main groups, 34 subgroups (two digits) and 63 subgroups (three digits). The following table shows the main groups (one digit) and their weights:

Exp. Grp. No.	Main Expenditure Groups	Weight
	Total	100.0
01	Food and beverages	16.1
02	Alcoholic beverages and tobacco	0.3
03	Clothing and footwear	9.8
04	Housing, water, electricity, gas and other fuels	37.9
05	Furnishings, household equipment and routine household maintenance	4.8
06	Health	0.8
07	Transport	9.7
08	Communication	7.7
09	Recreation and culture	2.4
10	Education	2.6
11	Restaurants and hotels	3.4
12	Miscellaneous goods and services	4.6

5. The Classification used in the CPI by household welfare

According to this classification, households were divided into five segments based on the average expenditure per capita in 2007, when the last Household Income and Expenditure Survey was carried out.

The bottom welfare quintile represented the segment with the lowest income, while the top welfare quintile represented the segment with the highest income.

Average expenditure per capita

Welfare	Lowest	Highest	Average
Low	2,683	11,122	7,839
Low middle	11,126	16,887	14,070
Middle	16,896	23,716	20,260
Upper middle	23,723	34,607	28,686
Top	34,632	422,932	52,720

6. Terms related to the CPI

Term	Description
Price	Price is defined as the value of one unit of a product or service; this means the market value of the product or service. This value is established through the exchange of products and services in the markets. This value is equivalent to the benefit achieved by the consumer.
Consumer Price Index (CPI)	The Consumer Price Index (CPI) is a statistical indicator that measures changes in the level of prices of goods, services and rents of residential units within the consumer spending basket of households between two periods, the reference period and the comparison period.
Expected Inflation	Expected inflation is the expected rate of the rise in consumer prices. It is calculated using the CPI time series data by studying the movement of prices at the level of main and sub groups of the index basket, taking into account the seasonal changes. The expected inflation rates are statistical estimates, subject to increase or decrease depending on the unexpected changes in market prices.
Weight	Weight is the relative importance of a product or service within the CPI basket compared with all other products or services.
Outlet	Outlets where products or services are sold such as shops, supermarkets and stores.
Periods of Collection	Periods of collection are the adopted periods to repeat the survey of all groups in each basket. The period might be weekly, monthly or quarterly.

7. Classification used in the CPI by household type

According to this classification, households were divided into three types, citizen, non- citizen and share household:

- Citizen household: is one person or more from the UAE citizens, who live permanently in the Emirate of Abu Dhabi. They should have a head, while their members might be related to each other or not and they should share accommodation and food.

- Non- citizen household; is one person or more who are non-UAE citizen. The members of the non-citizen household should share accommodation and food, while they might be related or not and they should have a head. The household is considered non- citizen if the head is non-citizen and wife is non-citizen, even if the wife has citizen children from a previous marriage.

- Share household: is a group of persons (more than two) regardless of their nationalities. It should have a head and their members might be related to each other or not. The members of the share household share accommodation but they normally do not share food.

8. Geographical Scope

The current geographical scope of SCAD data collection covers the Emirate of Abu Dhabi including all sub regions. However, the comprehensive coverage of the whole Emirate is essential but it requires a huge effort in order to collect the prices on a regular basis from all the regions of the Emirate.

9. Sources of Goods and Services

Sources used for the collection of price data were determined through field visits conducted by a team from SCAD's Price Indices Section. The team updates SCAD on a regular basis if any source closes down or relocates premises. While choosing a source, it has been taken into consideration that it should represent a large segment of consumers in the Emirate of Abu Dhabi. Price data are currently collected from 180 sources.

10. Collection of Price Data

Price data collection is a crucial stage that requires a significant amount of time and effort. A group of employees who are well trained conducts the collection of price data. To ensure the accuracy of the collected prices, the price of a sample of goods and services are reviewed

through field visits. Each group of prices is collected differently, some are collected weekly, and others are collected monthly and quarterly.

In order to develop the price collection mechanism and implement the latest IT technology, SCAD developed a comprehensive system that aims at calculating CPI using tablets.
The system aims at:

- Automation of all CPI stages.
- Provide of electronic programs and tools required for the price data collection (field collection) and transfer of data to the tablets, in addition to receiving data and transfer to the prices database.
- Examine data accuracy and integration at all stages of the system, including preparation of the goods and services basket, the fieldwork and calculating the index.
- Calculate the CPI for any region of the Emirate (according to the geographical scope).
- Deal with special situations that arise during data collection or CPI calculation such as disappearance of goods, resources, and changes in the goods.
- Determine the goods and services basket of the base year with the relative weights of the groups, in addition to calculating the prices of goods and services of the base year.
- Assist data collectors while editing data by connecting the current database with the previous one.

11. Publishing

SCAD publishes the CPI and prices of consumer goods and service on a monthly basis, two weeks after the end of the month. SCAD also publish annual CPI results and inflation rates. The CPI can also be provided on CDs upon request.

12. How to read the CPI

The CPI reflects the rate of the change in the prices of a specified goods and services basket between two periods, the base period and the comparison period. For example, if the price of the goods and services basket during a specified base period is AED 100, and the CPI of the comparison period was 105.0, this means that prices of goods and services increased by 5%.

In order to measure the change in the prices of the current period and the previous period, the current CPI should be divided by the previous CPI, and the result then multiplied by (100) followed by subtracting 100.

Next release:

The CPI for December 2015 will be released on 15 January 2016. For more information on prices and other official statistics, please visit the SCAD website at http://www.scad.ae

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