

# Importance of Consumer Price Index for the Measure of Inflation in Afghanistan

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**Abstract:** *Finding and identifying the best and important method for the measurement of inflation is a major and main problem in Afghanistan. The purpose of the article is to identify the main and important method for measuring inflation in Afghanistan. Interviews with customers, employees, trade union representatives, and government representatives have been conducted to collect relevant data and information and use secondary data from the ministry of economics, ministry of finance, the central bank, and some national and international organizations. Analysis of the received data shows that Consumer Price Index (CPI) is the best methods for measuring of inflation in Afghanistan. It is a good idea for individual level to have a sense of which way prices are trending. That can help afghan government for better plan for afghan budget.*

**Keywords:** Inflation, consumer price index, Cost-of-living indices, inflation measurement

## 1. Introduction

The most well-known indicator of inflation is the Consumer Price Index (CPI), which measures the percentage change in the price of a basket of goods and services consumed by households. Consumer price index which often called the "cost of living index "affects us in different ways.

The consumer price index is a measure that shows the price level of the consumer goods and services market basket. or The Consumer Price Index (CPI) is a measure of the weighted average price of a basket of consumer goods and services, including transportation, food, and medical care. consumer price index provides us a numerical representation of the current cost of living in a country, and the consumer price index allows as to better assess how inflation and other factors affecting our daily life. Changes in CPI are used to assess cost-of-living price changes.

This index is calculated by taking into account the price changes for each item in the predefined basket of goods and averaging them. The consumer price index is one of the statistics that is used more than other indices regularly to identify periods of inflation and falling prices.

The consumer price index is widely used as an economic index. This index is the most widely used inflation measure and shows the effectiveness of government economic policy. The CPI gives government, businesses, and citizens an idea of price changes in the economy and can serve as a guide for making informed decisions about the economy. The CPI and its components can also be used as an anti-inflation tool for other economic factors, including retail, monthly/weekly receipts, and the value of a consumer's dollar to gain purchasing power. In this case, the purchasing power of the dollar falls as prices rise.

We know about Inflation that inflation is the constant and uncontrolled increase in the general level of prices of goods and services, which ultimately leads to a decrease in purchasing power and economic turmoil. Or Inflation is an

increase in the level of prices of the goods and services that households buy. It is measured as the rate of change in those prices. is one of the most important influences in economics and one of any government's primary fiscal goals is to keep inflation at a controlled level. Inflation is viewed as a positive when it helps boost consumer demand and consumption, driving economic growth.

Inflation affects different aspects of a country's population. These changes may be positive or negative. Accurate measurement of inflation is therefore a prerequisite for analyzing and identifying these effects. CPI is the most important and best method for measuring inflation. Therefore, it is important to measure inflation in light of these issues<sup>1</sup>.

### 1) Consumer Price Index

We know about the consumer price index, which is a measure of the changes over time in the prices, which paid by consumers for a basket of goods and services. usually in these goods and services include food and beverages, medical care, housing, apparel, recreation, transportation, education, and communication.

The Consumer Price Index is one of the most important indicators for measuring inflation. Indicators are used for a variety of purposes. The Consumer Price Index is used to measure changes in a particular group of prices, which helps us to compare the price momentum of a commodity with other commodities<sup>2</sup>. Industrial Production Indicators provide a measure of changes in the level of industrial production in a country. Quantitative indicators indicate an increase or

<sup>1</sup>Garriga, A.C. and Rodriguez, C.M., 2020. More effective than we thought: Central bank independence and inflation in developing countries. *Economic Modelling*, 85, pp.87-105.

<sup>2</sup>Meyer, D.F. and Habanabakize, T., 2018. Analysis of Relationships and Causality between Consumer Price Index (CPI), the Producer Price Index (PPI) and Purchasing Manager's Index (PMI) in South Africa. *Journal of Economics and Behavioral Studies*, 10(6 (J)), pp.25-32.

decrease in the size and value of all goods, exports, and imports.

Export-import price indicators are used to measure changes in a country's trade terms and conditions, providing an average coefficient or ratio of imports to export prices. Indicators are also used to predict a country's trading conditions, seasonal fluctuations, and trade cycles. Consumer price indicators refer to the moment and changes in the prices of consumer goods and services. These price moments help to formulate the economic policies of the government and to take appropriate economic measures. Can be used. The main purpose of the CPI of the Consumer Price Index is to provide information on inflation to the government, traders, economic institutions and households across the country. Usually consumer price index is an indicator used to determine inflation. Which is our article main purpose.

## 2) Constriction of consumer price index:

The following steps are included in the structure of CPI.

- a) . Objective and Limited Scope: In the first step, first of all, a class of people and the area from which the report is made for the indicator should be defined. Industrial workers, etc., should be selected and the place and area of residence should be specified, such as a city or an industrial town. If we think that the standard of living of the people in our country is relatively low, then it is not appropriate to choose the class of well-to-do people.
- b) Household Budget Inquiry: The second step is to conduct a Household Budget Inquiry to determine the extent to which the person or group of people is allocating funds for these goods and services. This phase has many difficulties in practice, for example, two families do not have the same income and the same characteristics of purchase.
- c) Surveys or household consumer surveys raise many questions such as household size, income, family number and quantity and quality of consumer goods and services, the amount of money that can be spent on food, beverages, clothing, shoes, fuel, lighting fixtures and various other miscellaneous items. The miscellaneous group includes a number of items such as extracurricular health care, entertainment, gifts, newspapers, haircuts, laundry and other services. In order to compute the data of consumables obtained, a skilled person should be hired to analyze the information in terms of both quantity and quality.
- d) Price information Price data: The third step is to look at the information about the prices that have been allocated for goods and services. That the consumer lives or buys from.
- e) Computation of index: In the final stage, a suitable formula for measuring the index should be selected and the index measured. There are two methods for measuring CPI and both give the same result, which are:

### The aggregative expenditure method:

The amount consumed by a household during the base period is used as a dose. The  $q_0$  quantity is the sum of the payments that take place in a given period of time based on the distribution of the yield of both these quantities and the

percentage of the capital after which the formula of the indicator of the price of lasper is obtained.

$$Pon = \frac{\sum Pn \cdot q_0}{\sum Po \cdot q_0} \times 100$$

The current year's quantities are not used, as quantities change from year to year and the latest survey for each year requires more labor, time, financial and monetary resources.

### House hold budget method:

In this method the relative prices are weighed by the amount of money spent by the household for various goods and services. Considered by the household, obtained from the household budget survey, this method is known as the average weight indicator whose formula is as follows.

$$Pon = \frac{\sum \left(\frac{pn}{po}\right) \cdot w}{\sum w} \times 100 = \frac{\sum \left(\frac{pn}{po} \times 100\right) \cdot w}{\sum w} = \frac{\sum I \cdot w}{\sum w}$$

### Importance of consumer price index

Consumer price index plays an important role in the use of economic and social policies and is widely used for a variety of purposes. CPI can be used to compare the current economic situation with the previous economic situation. We need to have complete information on commodity prices and their indicators, considering the significant changes in prices in the industrial and commercial situation and understanding the economic situation from a historical point of view, so that we need to know enough about the price level<sup>3</sup>.

Consumer Price Index is used for a multiplicity of purposes. the more important uses are: As a compensation index, as a Cost of Living Index (COLI), as a consumption deflator, and as a measure of general inflation<sup>4</sup>.

Inflation affects our purchasing power. As prices go up, the value of money does not go up as much, so we spend more to buy goods and services. The consumer price index can determine how inflation works. Consumer price index can indicate inflation, how it is trending, and by extension, the effectiveness of the present economic policy.

The Consumer Price Index (CPI) is one of the best tools for understanding inflation. The CPI of the Central Statistics Office (CSO) in Afghanistan measures the inflation rate of consumer goods every month.

The main objective of the price indicator is to provide a standard for the government, enterprises and households in terms of inflation of consumer goods. Consumers can better allocate their income according to the price indicator information.

Changes in the price index are widely used to adjust the inflation rate in trade contracts for wages and salaries of employees, pension rights and social security. Consumer price index and its monthly movement momentum are used

<sup>3</sup>Honningdal Grytten, O., 2020. Revising price history: consumer price index for Norway 1492–2018. *Scandinavian Economic History Review*, pp.1-16.

<sup>4</sup>Diewert, W.E., 2001. The consumer price index and index number purpose. *Journal of Economic and Social Measurement*, 27(3-4), pp.167-248.

for monetary policy purposes and are widely used for other economic and social issues.

**3) Use of consumer price index to determine and calculate inflation:**

As mentioned earlier, the Consumer Price Index (CPI) is also used to determine the level of inflation. In fact, the main purpose of CPI is to determine the extent of inflation. Economists identify the causes of high inflation in the presence of high inflation and adopt appropriate economic policies to reduce it, as inflation is a condition that Decreases people's purchasing power for goods and services [Anghel, M.G., Mirea, M. and Badiu, A., 2018. Analysis of the Main Aspects Regarding the Price Indices Applied in the Determination of Inflation. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(2), pp.28-36]. Inflation is caused by high production costs or an increase in demand, which means either Cost Push Inflation or Demand Pull Inflation [Anghel, M.G., Lixandru, G., Popovici, M., Solomon, A.G. and Stanciu, E., 2017. Theoretical Elements on the Use of Price Indices for Inflation Measurement. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(3), pp.38-47]. To calculate inflation, we first calculate the consumer price index for a given period and then calculate the net percentage of change for each of the two periods based on the previous period, resulting in an inflation rate for each period, Simply the current period index. We subtract the index from the previous period, divide it by the index of the previous period and multiply it by the percentage to get the inflation rate at the end.

$$Rate\ of\ Inflation = \frac{CPI_{x+1} - CPI_x}{CPI_x} \times 100$$

- $CPI_x$ : Is Consumer Price Index of Initial Year
- $CPI_{x+1}$ : Is Consumer Price Index of next year

It should be noted that these indicators should depend on the prices of consumer goods. If we want to calculate the inflation rate for a longer period, we calculate the geometric average of the inflation rates for different periods or years. In certain cases, we need to calculate the rate of average inflation over a number of years [Dizon, F., Herforth, A. and Wang, Z., 2019. The cost of a nutritious diet in Afghanistan, Bangladesh, Pakistan, and Sri Lanka. *Global Food Security*, 21, pp.38-51]. The formula for the same is:

$$CPI_{x+1} = CPI_x * (1 + r)^n$$

Where,

- $CPI_x$  is Consumer Price Index of Initial Year,
- $n$  is number of years after the initial year,
- $CPI_{x+n}$  Is Consumer Price Index of  $n$  years after the initial CPI year,
- $r$  is the rate of interest.

**4) Consumer price index in Afghanistan**

In Afghanistan, the Consumer Price Index (CPI) is divided into two main groups: Food Items, accounting for 61.3 percent of total CPI and Non-Food Items making up the remaining 38.7 percent. The most important food items are: bread and cereals (28 percent), meat (6 percent), milk, cheese and eggs (5.6 percent) and oil and fats (5.3 percent). The non-food items are mainly composed of: housing (17.2 percent), clothing (7.2 percent), household goods (7 percent), transportation (2.3 percent), and health (2 percent).

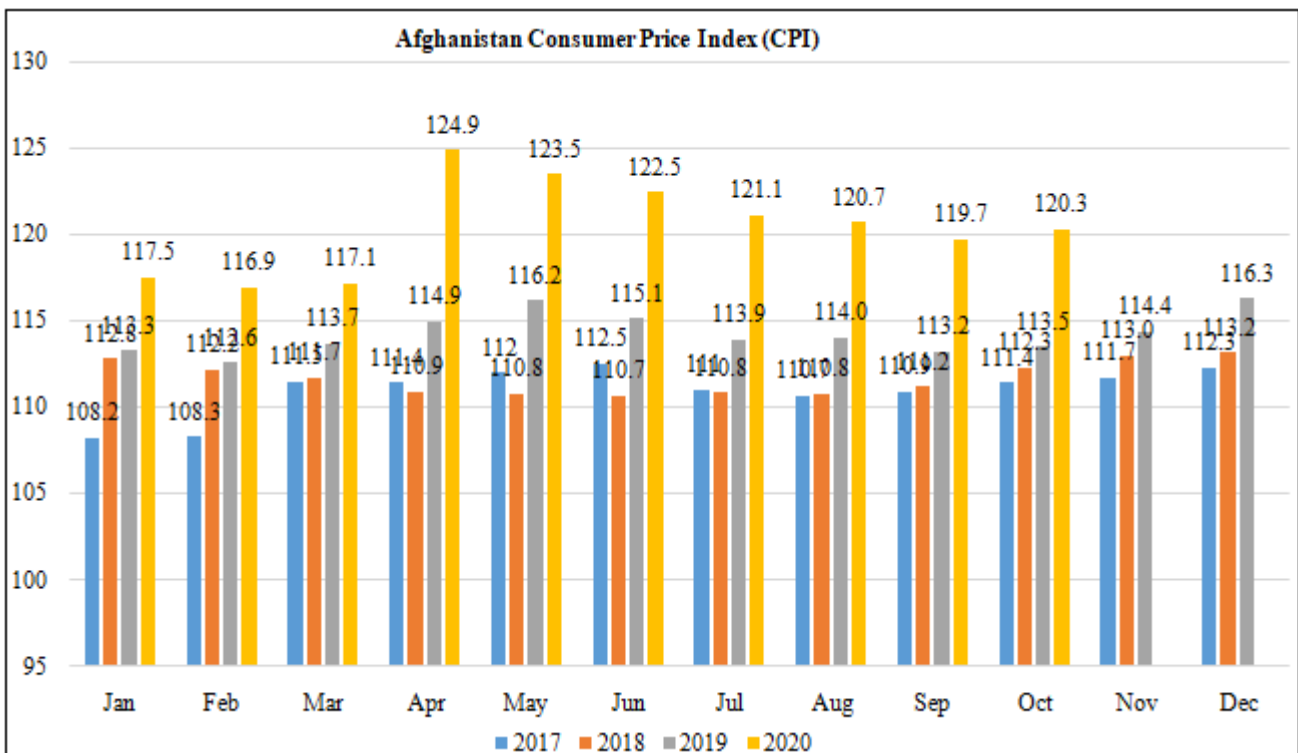


Figure 1: Afghanistan Consumer Price Index from 1017-2020 (source, NSIA)

The horizontal axis shows the months of year, and the vertical axis shows the consumer price index, and the base year is 2015. Consumer Price Index in Afghanistan is expected to be 124.56 points by the end of this quarter. To

measure inflation in Afghanistan, it is necessary to measure the consumer price index. The Consumer Price Index has been measured for each month. from 2017 to 2020. We can

also measure the rate of inflation for each month You can see in the table below.

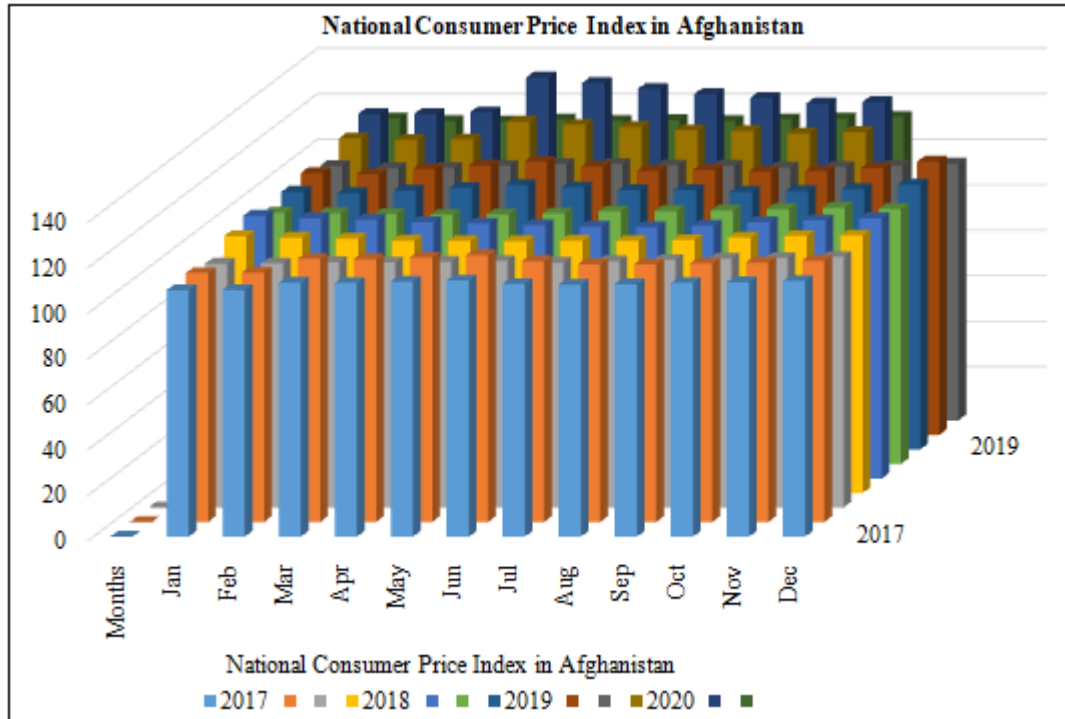


Figure 2: National Consumer Price Index in Afghanistan. (source, NSIA)

Looking forward, we estimate the Consumer Price Index CPI in Afghanistan to stand at 127.41 in 12 months' time. In the long-term, the Afghanistan Consumer Price Index (CPI) is projected to trend around 128.22 points in 2021 and 135.01 points in 2022 [https://nsia.gov.af/services].

From 2005 to 2019, and projections of inflation rate until 2025, the average inflation rate amounted to 2.3 percent which is compared to the previous year. The inflation rate has increased every year, with the exception of 2009. The fundamental reason for yearly inflation in Afghanistan is attributed to wars<sup>8</sup>.

5) Inflation rate in Afghanistan:

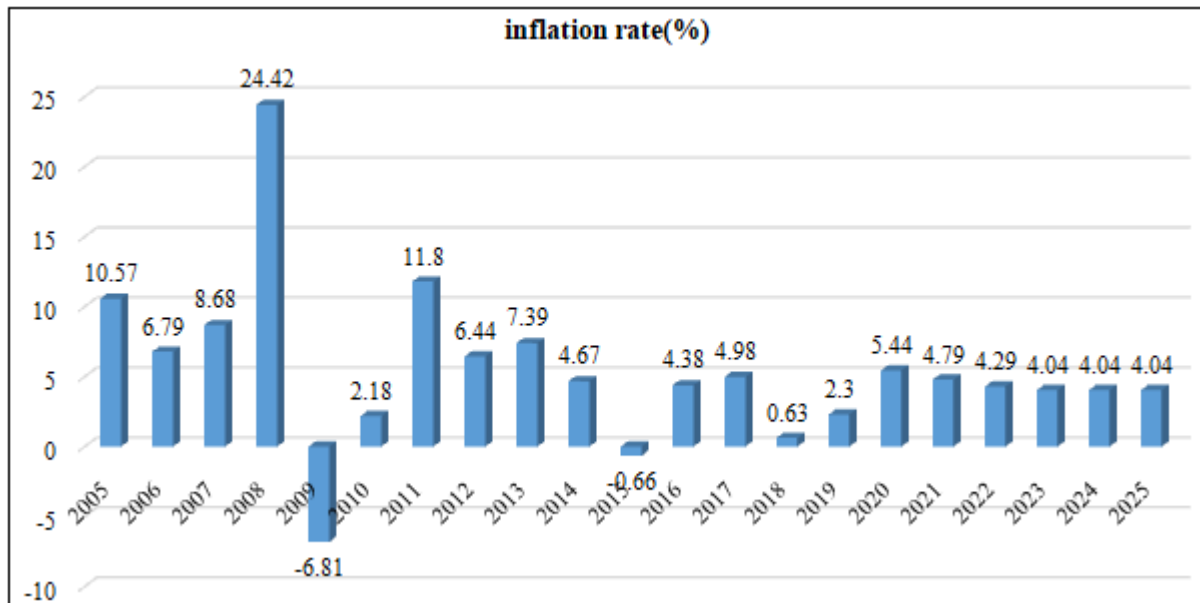


Figure 3: Inflation rate in Afghanistan. (source, NSIA)

The horizontal axis shows the year, and the vertical axis shows the inflation rate, in which 2015 is the base year.

2. Conclusion

Consumer price index is the best method for measuring inflation, we mentioned various factors and reasons for its importance in that article.

Consumer price index has a long tradition in economics, and has taken on new enthusiasm in the recent era of moderate inflation. We have computed dynamic factors indices of CPI, which are set up by essentially weighting of goods on the strength of inflation.

In this article we have considered the case of consumer prices, importance consumer price especially at the minatory policy setting, consumer price index allowing to determine the different between two points and time and can calculate inflation for that period.

Usually, Inflation is considered as a percentage change, so we take that number and multiply it by 100 to get inflation. For understanding of different between CPI and inflation is it is better to once redefine CPI and inflation, in which CPI is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. inflation is the overall general upward price movement of goods and services in an economy. So The different between CPI and inflation is that Consumer Price Index is a factor in determining inflation.

Afghanistan is a consumer and importing country, and often changes in commodity prices have a direct impact on the afghan resident lives. To find commodity prices we can easily have access to primary and secondary data which is considered necessary to measure the consumer price index. The Consumer Price Index also plays an important role in measuring inflation, so the Consumer Price Index is better than other relevant indicators for the above-mentioned factors and reasons. Therefore, it is the best indicator for measuring inflation in Afghanistan.

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