**Calculating The Rate of Inflation Using a Weighted Price Index**

***Exercise 1:***

The price index figures for country x for two years are shown below:

|  |  |  |
| --- | --- | --- |
| Category | 2022 | 2023 |
| Housing | 110 | 120 |
| Transport | 106 | 110 |
| Foodstuffs | 120 | 120 |
| Entertainment | 110 | 100 |
| Clothing | 105 | 105 |

Base year=2019

1. Calculate the average index for each year.
2. Calculate the unweighted inflation rate for 2022/23

The expenditure patterns of the population of the country are surveyed and it is discovered that the average household spends 35% of its income on housing, 25% on transport, 15% on foodstuffs, 15% on entertainment and 10% on clothing.

1. Explain with the help of the figures above the relative importance of the weighting.
2. Assuming that consumer expenditure patterns do not change over the period 2022/23, construct a table showing the weighted indices for 2022 and 2023. (Add columns to table above)
3. Calculate the weighted inflation rate for 2022/23.
4. Explain the differences between the inflation rates that you have calculated in 2 and 5.

***Exercise 2:***

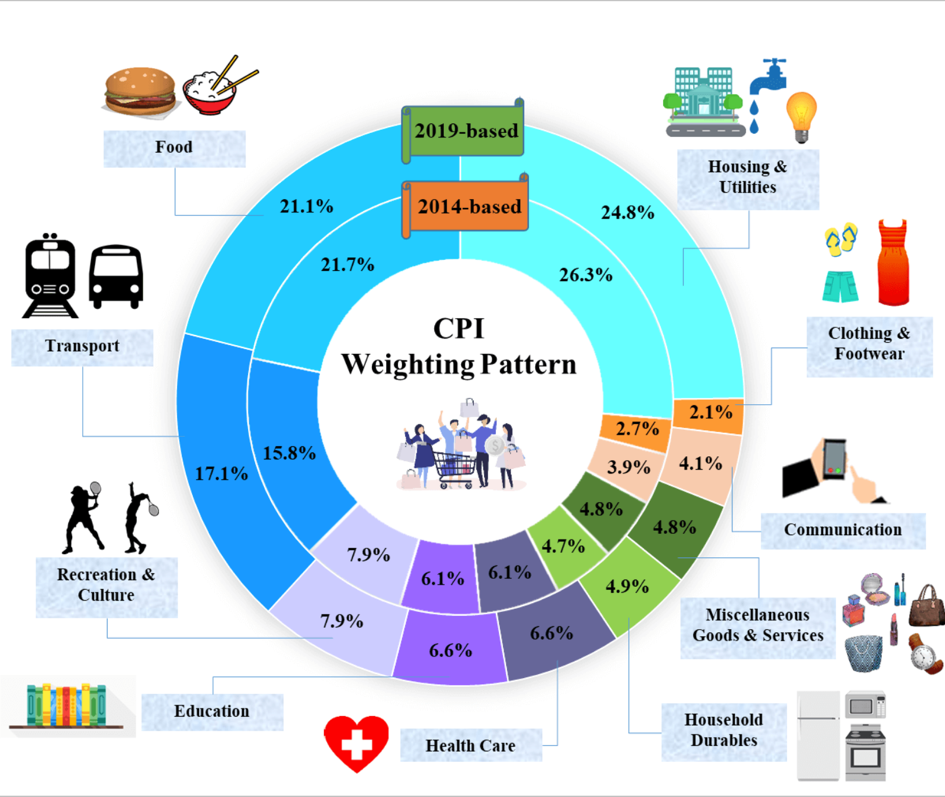
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| Category | 2022 | 2023 |
| Housing | 110 | 120 |
| Transport | 106 | 110 |
| Foodstuffs | 120 | 120 |
| Entertainment | 110 | 100 |
| Clothing | 105 | 105 |
| Education | 102 | 110 |
| Healthcare | 107 | 108 |
| Utilities | 105 | 115 |

The expenditure patterns of the population of the country are surveyed and it is discovered that the average household spends 25% of its income on housing, 15% on transport, 15% on foodstuffs, 10% on entertainment and 5% on clothing, 10% on education, 10% on healthcare and 10% on utilities.

1. Assuming that consumer expenditure patterns do not change over the period 2022/23, construct a table showing the weighted indices for 2022 and 2023. (Add columns to table above)
2. Calculate the weighted inflation rate for 2022/23.

**CONSTRUCT YOUR OWN CPI INFLATION RATE**



**Construct your own Consumer Prices Indices (CPI)**

Using the website[: https://web.archive.org](https://web.archive.org/) you are going to construct your own version of the CPI.

Method:

1. First you will need to choose a representative basket of goods from the same retailer (Walmart has the most archived pages). Enter at least 10 consumer goods into the table below. I recommend you work backwards by finding the good from a year ago (April – June 2022) and then find it at today’s price. Make sure that it is the identical good; brand, size, volume etc. Enter it into the table below:

Fig 1. Constructing a consumer prices index (cpi)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Consumer Goods  Basket (List items) | April- June  2022 Price | Weighting in the Basket | Index for the year 2022 times weight | 2023 Price | Weighting in the Basket | Index for the year 2023 times weight |
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|  |  |  |  |  |  |  |
| **Totals** |  | **1.0** |  |  | **1.0** |  |

1. We can then work out the inflation rate by using the equation:

Index for 2021 – Index for 2020/Index for 2020 x 100 =