

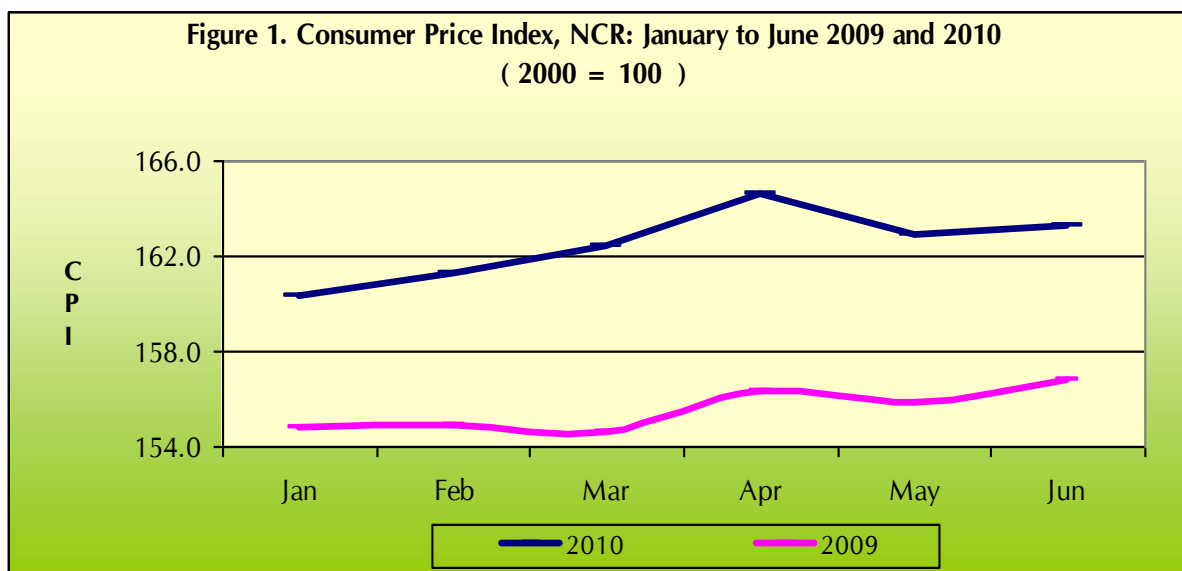


# SPECIAL RELEASE

## UPWARD TREND FOR CPI, INFLATION RATE NOTED IN NCR FOR THE FIRST FOUR MONTHS OF 2010

The Consumer Price Index (CPI) is an indicator of the change in the average retail prices of a fixed basket of goods and services commonly purchased by households relative to a base year. It shows how much, on the average, prices of goods and services have increased or decreased from a particular reference period known as the base year. Since price is the cost or the amount of money for which something can be bought or sold, CPI therefore compares the current cost of certain goods and services with their cost at an earlier time.

CPI is the percentage change in the average prices of goods and services commonly bought by a group of households from the base year. To illustrate, an index of 163.2 in 2010 means that consumer prices on the average have increased by 63.2 percent from year 2000. It also means that a set of commodities which can be purchased by an average Filipino household with Php100 in December 2000 is bought with Php 163.20 in June 2010.



## Same trend in the CPI in NCR noted for the same period in 2009 and 2010

The CPI in NCR was registered at 160.3 in January 2010, gradually increased to 164.6 in April 2010 and dipped to 162.9 in May 2010. By the end of the first semester of 2010, CPI went up to 163.2. Although the CPI in NCR was lower during the same months in 2009, identical trend was recorded for both periods. (Refer to Table 1 for details.)

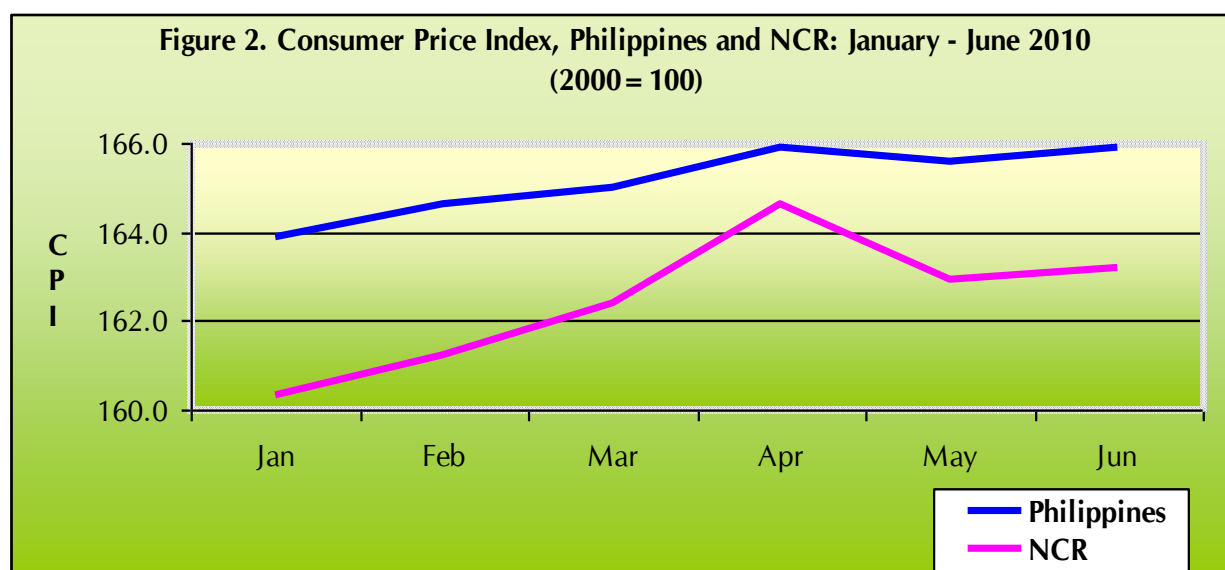
**Table 1. CPI for All Income Households by Commodity Group, NCR: January to June 2009-2010 (2000=100)**

Commodity Group	January		February		March		April		May		June	
	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009
All Items (PHILIPPINES)	163.9	157.2	164.6	158.0	165.0	158.1	165.9	158.9	165.6	158.8	165.9	159.7 <sup>r</sup>
All Items (NCR)	160.3	154.8	161.2	154.9	162.4	154.6	164.6	156.3	162.9	155.8	163.2	156.7 <sup>r</sup>
Food, Beverages & Tobacco	155.7	150.4	154.8	150.3	154.1	150.5	154.3	150.9	154.6	151.3	155.3	151.9
Clothing	139.8	137.7	140.0	137.7	140.5	138.3	140.6	138.6	140.7	138.7	140.7	138.7
Housing and Repairs	141.2	139.2	141.4	139.8	142.0	140.1	142.1	140.3	142.2	140.3	142.5	140.4
Fuel, Light and Water	221.4	209.5	239.5	214.2	253.8	211.6	281.8	224.5	257.6	216.2	255.5	212.5
Services	185.3	175.8	184.8	174.0	186.5	172.1	187.0	175.1	186.5	174.9	187.0	179.1 <sup>r</sup>
Miscellaneous	127.4	125.5	127.6	125.6	127.6	126.4	127.7	126.6	127.7	126.7	127.8	126.8

Source: EIID, ITSD, NSO

## NCR recorded lower CPI than the national figures in the first six months of 2010

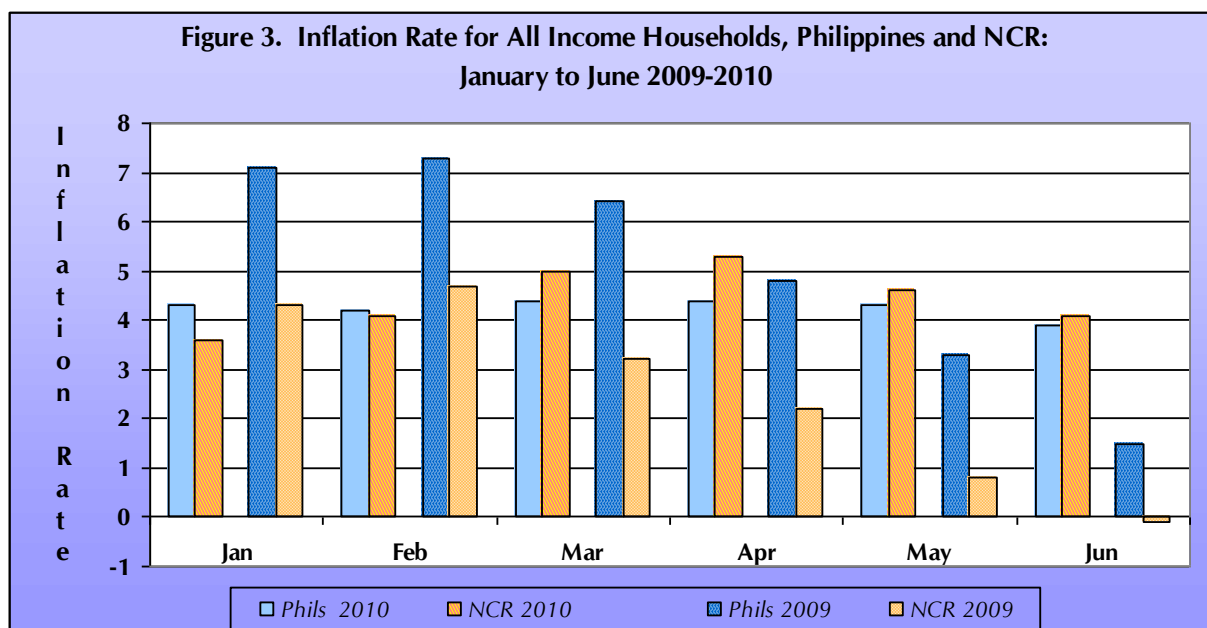
The national CPI is consistently higher than the NCR CPI during the first six months of 2010. Although the trend is quite similar, NCR showed a more erratic trend than that of the national level. Both, however, recorded the highest CPI in April 2010. (Refer to Table 1 for details.)



Source: EIID, ITSD, NSO

## Highest inflation rate in NCR for the first semester of 2010 was recorded in April 2010

Inflation rate made a gradual increase from 3.6 in January 2010 to 5.3 in April 2010, the highest within the semester. It went down to 4.6 and 4.1 in May and June 2010 respectively. Comparing the IR for the first semester of 2010 to that of the same period in 2009, the IR were considerably lower starting March 2009 to as low as -0.1 by June 2009. (Refer to Table 2 for details.)



Source: EIID, ITSD, NSO

## NCR Inflation rate prevails over the national inflation rate from March to June 2010

NCR registered an IR of 3.6 in January 2010 and 4.1 in February 2010, both of which are lower than the national IR for the same months. However, the months that followed showed a different trend when IRs in NCR were higher than that of the national IRs especially in April 2010 where the biggest gap was recorded.. (Refer to Table 2 for details.)

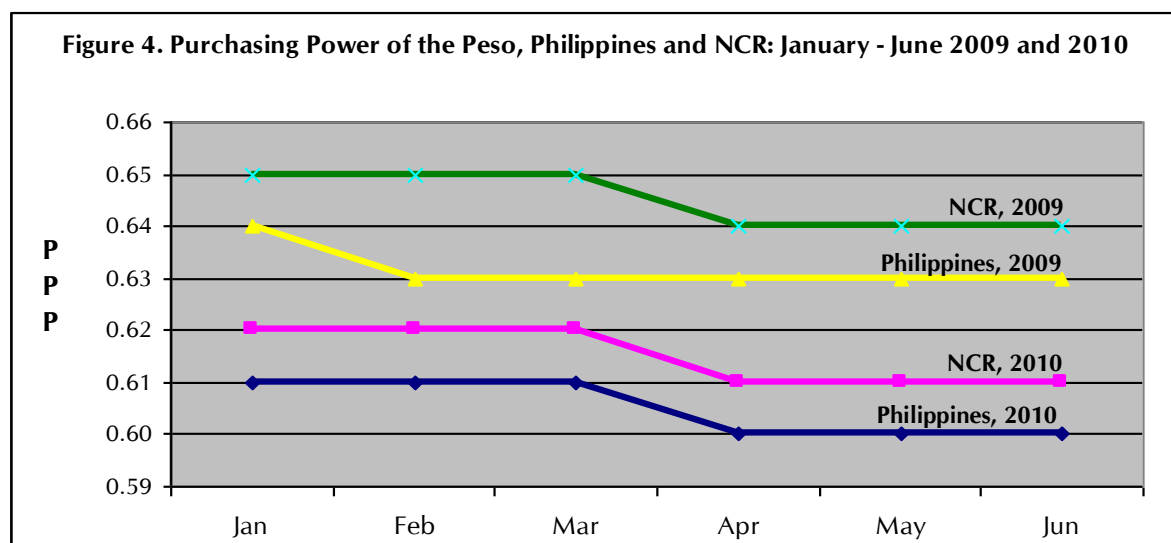
**Table 2. Inflation Rate for All Income Households by Commodity Group, NCR: January to June 2009-2010**

Commodity Group	January		February		March		April		May		June	
	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009
All Items (PHILIPPINES)	4.3	7.1	4.2	7.3	4.4	6.4	4.4	4.8	4.3	3.3	3.9	1.5
All Items (NCR)	3.6	4.3	4.1	4.7	5.0	3.2	5.3	2.2	4.6	0.8	4.1	-0.1
Food, Beverages & Tobacco	3.5	9.1	3.0	9.5	2.4	7.5	2.3	5.2	2.2	3.7	2.2	2.4
Clothing	1.5	3.9	1.7	1.3	1.6	1.3	1.4	1.4	1.4	1.4	1.4	1.3
Housing and Repairs	1.4	4.0	1.1	4.2	1.4	4.2	1.3	2.9	1.4	2.9	1.5	2.5
Fuel, Light and Water	5.7	-1.3	11.8	2.6	19.9	-0.8	25.5	0.3	19.1	-3.7	20.2	-2.9
Services	5.4	-0.2	6.2	-1.0	8.1	-2.8	6.8	-2.3	6.6	-4.3	4.4	-6.1
Miscellaneous	1.5	2.7	1.6	2.5	0.9	2.9	0.9	2.5	0.8	2.4	0.8	2.3

Source: EIID, NSO

## Stable Purchasing Power of the Peso (PPP) in NCR from January to June 2010

While the CPI and IR are generally on the upward trend during the first semester of 2010, the PPP in NCR remained stable at Php 0.62 from January to March 2010. It went down slightly to Php 0.61 in April and remained at this level until June 2010.



Source: EIID, ITSD, NSO

Comparatively, the NCR PPP is consistently higher than the national PPP throughout the last six months of 2010, although the same trend was noted for both. The national PPP was recorded at Php 0.61 from January to March 2010, going down by Php0.01 in April 2010 to Php0.60 and remained to be so until June 2010.

### Lower PPP observed in NCR during the first semester of 2010 compared to 2009 figures

Figure 4 illustrates that NCR exhibited a consistently lower PPP throughout January to June 2010 as compared to the same months in 2009. Exactly the same trend was seen for both years however, as the same PPP levels were recorded for each year from January to March, then declined in April 2010 and remained at this level until June of the same year.

Likewise, the national level PPP was lower throughout the first semester of 2010 in comparison to the 2009 figures.

**Table 3. Purchasing Power of the Peso, Philippines and NCR: January to June 2009-2010**

Year	January		February		March		April		May		June	
	Phils.	NCR	Phils.	NCR	Phils.	NCR	Phils.	NCR	Phils.	NCR	Phils.	NCR
2010	0.61	0.62	0.61	0.62	0.61	0.62	0.60	0.61	0.60	0.61	0.60	0.61
2009	0.64	0.65	0.63	0.65	0.63	0.65	0.63	0.64	0.63	0.64	0.63	0.64
2008	0.68	0.67	0.68	0.68	0.67	0.67	0.66	0.65	0.65	0.65	0.64	0.64
2007	0.71	0.70	0.72	0.70	0.72	0.70	0.71	0.70	0.71	0.70	0.71	0.70
2006	0.74	0.73	0.73	0.72	0.73	0.72	0.73	0.72	0.73	0.72	0.72	0.71
2005	0.79	0.78	0.79	0.78	0.79	0.78	0.78	0.77	0.78	0.77	0.77	0.76
2004	0.86	0.85	0.86	0.85	0.85	0.85	0.85	0.84	0.85	0.84	0.83	0.83
2003	0.89	0.89	0.89	0.88	0.89	0.88	0.89	0.88	0.88 <sup>r</sup>	0.88 <sup>r</sup>	0.88	0.87
2002	0.92	0.91	0.92	0.91	0.92	0.91	0.91	0.91	0.91	0.90	0.91	0.91
2001	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.93

R – revised

Source: EIID, NSO

# TECHNICAL NOTES ON THE CONSUMER PRICE INDEX (CPI)

## I. INTRODUCTION

Consumer Price Index (CPI) is an indicator of the change in the average prices of a fixed basket of goods and services commonly purchased by households relative to a base year. Prices are compared to a base year and weighted by the appropriate consumption pattern. When the basket of the reference year no longer represents what is commonly purchased by the households, the CPI becomes irrelevant and tends to give wrong market signals. Hence, it is necessary to update the CPI using a base year that reflects the typical market basket of the time.

## II. HISTORICAL BACKGROUND OF THE CPI

The NSO CPI dates back to 1945 and has undergone several revisions. Prior to that, CPI, which was then referred to as Cost of Living Index, was constructed by the Labor Statistics Division of the Department of Labor. The task of calculating the index was transferred to the Bureau of the Census and Statistics (now the National Statistics Office) on January 1, 1941.

The first series constructed by the BCS was in 1945. The Cost of Living Index series had 1941 as base year and covered Manila only. The market basket contained 66 commodities representing goods and services commonly purchased by low-income families (families living within minimum level of subsistence). This series lasted for 18 years from 1945 to 1963.

The first revision was made in 1964. New weights were based on the results of the 1961 Survey of Income and Expenditures while the average price for 1960-1962 was used as the base price. This new series was referred to as the Consumer Price Index for Low-Income Families in Manila (families whose annual income did not exceed P2,400). The market basket contained 244 items.

Subsequent revisions were done in the following years:

**1965 :** With 1961 as base year. The series covered Manila only.

**1970 :** With 1966 as base year. This time, CPI was computed for various income groups: Low, middle and all-income groups. Coverage was extended to all provinces. Moreover, for Manila and suburbs, CPI for high-income group was also computed.

Market basket consisted of 249 items for low-income, 368 for middle-income, 242 for high-income and 479 for all-income groups.

**1976 :** With 1972 as base year. This CPI series was limited only to all-income households. It covered all regions and provinces in the country including the National Capital Region (NCR).

**1982 :** With 1978 as base year. Weights were derived based on the 1975 Family Income and Expenditures Survey (FIES) results updated to 1978 prices. This series covered all-income households. The market basket contained 407 items.

**1992 :** With 1988 as base year. Weights were derived from the expenditure data of the 1988 FIES. A market basket for each of the 13 regions was established with the number of items ranging from 384 (for NCR) to 651 (for Region IV). Unlike in previous series where the composition of the market basket was determined by a technical committee (the Inter-Agency Committee on Price Statistics), the market basket used in this series was determined through the 1985 Commodity and Outlet Survey (COS) which was conducted using the sample households of the 1985 FIES. The 1985 COS was the first survey of its kind in the country with the purpose of identifying the market basket by asking sample households the commodities and services that they consumed most of the time and the type of outlets where these commodities and services are commonly purchased or availed of.

**1996 :** With 1994 as base year. The expenditure data from the 1994 FIES survey results were used as weights. Individual provincial and city market baskets were constructed using the results

of the 1994 COS undertaken by the NSO and the results of the validation work on the availability and saleability of the items in the 1988 market basket in the different geographical areas. There were no such baskets in the 1988-based series since the regional market baskets were used for the provincial CPIs.

**2000 :** With 2000 as base year. Updating activity actually started in October 2000. Updating of the 1994 market basket was done through an interview of key informants in various outlets as to the availability and saleability of items they sell. The expenditure data from the 2000 FIES were the basis of the new CPI weights. Final reference files (base price, market baskets and weights) were completed in 2002. Computation of the 2000 and 2001 CPI series started in October 2002.

The new series with 2000 as base year is part of the Office regular calendar of activities to update the present base year. The new series also features the use of separate provincial and city market baskets and the new set of 2000 weights also computed at the provincial and city level.

### **III. COMPONENTS OF THE CPI**

#### **A. BASE YEAR**

The base period is the period, usually a year, at which the index number is set to 100. It is the reference point of the index number series.

The year 2000 was chosen as the base year for two major reasons: (1) because it was perceived to be more politically, economically and socially stable and (2) it was the year when the Family Income and Expenditures Survey (FIES) which is the basis of weights was conducted.

#### **B. MARKET BASKET**

Market basket is a term used to refer to a sample of goods and services that are commonly purchased and bought by an average Filipino household.

The market basket used in the construction of the 2000 CPI was drawn from the results of the updating activity of the 1994 market basket. Updating of the 1994 market basket was done through an interview of key informants in various outlets as to the availability and saleability of the items they sell. Provinces and selected cities had their own market baskets.

The number of items in the 2000 market basket is almost similar with the 1994 market basket. NCR has a total of 701 items in its current market basket from 705 previously.

#### **C. WEIGHTING SYSTEM**

Weights are assigned to commodity groups/sub-groups to reflect the consumption priorities of households and the way they allocate resources to meet their needs. Moreover, weight is a value attached to a commodity or group of commodities to indicate the relative importance of that commodity or group of commodities in the market basket.

The weights for the 2000-based CPI were derived from the expenditure data of the 2000 FIES, a nationwide survey that covered 41,000 households. Each province/city was considered a domain so much so that weights were generated for each of them. This was done to account for the differences in consumption patterns because of geographical location. The weight for each item of expenditure is a proportion of that expenditure item to the total national expenditure. The total (all items) national expenditure is equal to 100. Likewise, geographical weights were also determined where the weight of the region is equal to the sum of the weights of the provinces belonging to that region. The sum of the weights for the region is equal to the national weight.

### Comparison of the 1994 and 2000 Weights in NCR

The overall weight for FBT slightly decreased from 12.74 percent in 1994 to 12.08 percent in 2000. Except for fruits and vegetables whose share slightly increased to 1.40 percent in 2000 from 1.26 percent in 1994, expenditure shares for all the other food groups declined. The expenditure share of tobacco also decreased to 0.19 percent in 2000 from 0.29 percent in 1994. The share of beverages in 2000 was almost similar to its 1994 weight of 0.61 percent.

The share of clothing decreased to 0.78 percent in 2000 from 0.85 percent in 1994 due to the decline in the The share of clothing decreased to 0.78 percent in 2000 from 0.85 percent in 1994 due to the decline in the shares of ready-made apparel and custom clothes.

The weight of H&R increased to 7.39 percent in 2000 from 6.27 percent in 1994 as expenditure shares for minor repairs and rentals correspondingly increased to 0.25 percent and 7.14 percent from their respective shares of 0.16 percent and 6.11 percent.

The share of FLW improved to 2.11 percent in 2000 from 1.84 percent in 1994 as the expenditures for fuel and light went up.

The share of services considerably increased to 5.79 percent in 2000 from 4.20 percent in 1994 as the weights of the following subgroups went up: educational services, 1.31 percent in 2000 from 1.04 percent in 1994; personal services, 0.89 percent from 0.67 percent; and transportation and communication, 2.93 percent from 1.74 percent.

The expenditure share of miscellaneous items dropped to 1.87 percent in 2000 from 2.09 percent in 1994 due to the decline of the shares of household furnishing and equipment, 0.43 percent from 0.78 percent and household operations, 0.26 percent from 0.32 percent.

#### **IV. DATA COLLECTION**

Collection of data for the CPI is done through the collective effort of the Bureau of Agricultural Statistics (BAS) and the NSO. BAS collects price data for agricultural commodities in NCR and in provincial capitals where there are BAS offices while NSO collects prices for all other commodities in all other areas.

Except for FBT which is monitored on a weekly basis in NCR, price collection is done twice a month. First collection phase is done during the first five days of the month while the second phase is on the 15th to 17th day of the month.

About 459,000 price quotations gathered throughout the country are entered into the computation of the monthly CPI.

Data are collected from the sample outlets (outlets or establishments where prices of commodities/services are collected or quoted) which were chosen using the following criteria:

1. Popularity of an establishment along the line of goods to be priced - this means the sample outlet is publicly noted in the locality for selling goods included in the CPI survey forms and the outlet is patronized by the large segment of the population.
2. Consistency and completeness of stock

*Consistency of stock* - the outlet has a constant, steady or regular stock of commodities listed in the CPI survey forms as well as of those commodities of the same kind and belonging to the same commodity.

*Completeness of stock* - the sample outlet carries in its stock many if not all of the items included in the CPI survey forms relative to the other outlets in the area.

3. Permanency of outlet - the outlet to be chosen should be an established store or stall in the market area. It should not be an ambulant or transient vendor.

- Geographical location - the outlet should be in a convenient place and is accessible to the majority if not all consumers in the area.

## V. COMPUTATION OF THE CPI

The formula used in computing the CPI is the weighted arithmetic mean of price relatives, a variant of the Laspeyres formula with fixed base year period weights. In computing the CPI, the formula is

$$\text{CPI} = \frac{\text{sum} [(P_n/P_o)W]}{\text{sum}(W)} * 100$$

where:

$P_n$  = current price  
 $P_o$  = base period price  
 $W = P_o Q_o$  = weights

## VI. ECONOMIC INDICATORS DERIVED FROM THE CPI

### 1. Inflation Rate

Inflation rate is defined as the annual rate of change or the year-on-year change in the CPI. That is,

$$\text{Inflation Rate} = \frac{\text{CPI}_2 - \text{CPI}_1}{\text{CPI}_1} * 100$$

where:

$\text{CPI}_2$  - is the CPI in the second period  
 $\text{CPI}_1$  - is the CPI in the previous period

### 2. Purchasing Power of Peso (PPP)

Another important economic indicator derived from the CPI is the PPP. The PPP is a measure of the real value of the peso in a given period relative to a chosen reference period. It is computed by getting the reciprocal of the CPI and multiplying the result by 100. That is,

$$\text{PPP} = \frac{1}{\text{CPI}} * 100$$

## D. INDEX FORMULA

The construction of the CPI basically uses a Laspeyres Formula (fixed base year weights). The formula is modified as the weighted arithmetic mean of price relatives. That is,

$$\text{Index} = \frac{\text{Sum}((P_n / P_o) * (P_o * Q_o))}{\text{Sum}(P_o * Q_o)} * 100$$

$P_n$  = current price

$P_o$  = base year price or base price

$P_o * Q_o$  = base year weight