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Bottom 30% Income Group Households In The Philippines  
(1994=100), 2001-2003**

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# **A Comparison Of The Consumer Price Index For All Income And Bottom 30% Income Group Households In The Philippines (1994=100), 2001-2003**

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## **ABSTRACT**

The focus of this paper is to compare the changes in the price level of the goods and services as measured by the Consumer Price Index between the low income group and all income group.

The Consumer Price Index (CPI) measures the changes in the price level of goods and services that most people buy for their day-to-day consumption. The change in the price level of these goods and services over a specific period of time, usually a year is the rate of inflation. Inflation is equivalent to a decline in the internal purchasing power of peso. The CPI being released monthly by the NSO is the "all-income" CPI at the national and regional levels. "All-Income" refers to the average Filipino households and includes those belonging to the high-middle and low-income brackets. This means that the current CPI is reflective of the expenditures of an average Filipino household and measures the changes in prices affecting households from all income groups.

Since families in the low- income bracket are most vulnerable to economic and social difficulties, monitoring the welfare of these families is one of the main thrusts of the government. Based on the "relative poverty" concept, households whose per capita income fall below the bottom 30% of the cumulative per capita distribution constitute the low-income group. One of the common characteristics of households in this income group is that expenditures on food items account for a more substantial proportion of expenditures compared to expenditures on other items. Price changes on food therefore, would be expected to greatly affect this income group than any other groups. Hence, it was proposed that a CPI be constructed also for the low income group with 1994 as the base year.

A separate CPI for the bottom 30% income group can provide a more appropriate deflator of income and inflator of food prices and other basic commodities which can be used by the government in their plans and programs to improve the standard of living of low-income families. Moreover, this index would measure the composite change over time of the retail prices of goods and services commonly purchased by households in this income category.

## **I. Introduction**

The Consumer Price Index (CPI) measures the changes in the price level of goods and services that most people buy for their day-to-day consumption. The change in the price level of these goods and services over a specific period

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of time, usually a year is the rate of inflation. Inflation is equivalent to a decline in the internal purchasing power of peso.

Since families in the low- income bracket are most vulnerable to economic and social difficulties, monitoring the welfare of these families is one of the main thrusts of the government. Based on the “relative poverty” concept, households whose per capita income fall below the bottom 30% of the cumulative per capita distribution constitute the low-income group. One of the common characteristics of households in this income group is that expenditures on food items account for a more substantial proportion of expenditures compared to expenditures on other items. Price changes on food therefore, would be expected to greatly affect this income group than any other groups. Hence, it was proposed that a CPI be constructed also for the low-income group with 1994 as the base year.

A separate CPI for the bottom 30% income group can provide a more appropriate deflator of income and inflator of food prices and other basic commodities which can be used by the government in their plans and programs to improve the standard of living of low-income families. Moreover, this index would measure the composite change over time of the retail prices of goods and services commonly purchased by households in this income category.

For the purpose of generating a separate CPI series for the bottom 30%, different sets of market baskets and weights from that of the CPI for all income were constructed based on the results of the 1994 Commodity and Outlet Survey along with the 1995 updating activity and the 1994 Family Income and Expenditure Survey (FIES).

## **II. Definition Of Terms And Concepts Used**

The terms and concepts used in this paper have the same definition with those used in the National Statistics Office (NSO), but for clarity and easier understanding, they are explained below:

### **Index Number**

A device used to compare relative movement in the magnitude of a variable or group of distinct but related variables between two or more points in time. An index number also shows the relative differences in the magnitude of a variable obtained at the same period of time in different areas. It is expressed in percentage form and its unit of measure is percentage point.

### **Consumer Price Index (CPI)**

A single number used to measure changes in the average retail prices of a market basket or collection of goods and services commonly purchased by an average Filipino household. It shows how much on the average, prices of goods and services have increased or decreased from a particular reference period known as base year.

## Market Basket

A term used to refer to a sample of goods and services that is used to represent all goods and services bought.

## Weight

For the CPI, the weighting pattern uses expenditures on various items by households as a proportion to total expenditure. 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 total (all items) national expenditure is equal to 100. 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 of the region equals the national weight.

## Base Period

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

## III. Comparison Of The Components Of The CPI

### A. Weights By Major Commodity Group

The weights for the 1994-based CPI were derived from the expenditure data of the 1994 FIES, a nationwide survey that covered 25,516 households. The survey gathered income and expenditure data which include the levels of consumption by item of expenditure up to the level necessary for the generation of the CPI weights.

Significant differences in expenditure patterns between the all income and bottom 30% income groups were apparent in the weights of six major commodity groups namely: food, beverages and tobacco (FBT), clothing, housing and repairs (H&R), fuel, light and water (FLW), services and miscellaneous items.

**Table A. Comparison of Weights for All Income and Bottom 30% Income Groups by Commodity Group and by Area, 1994=100**

Commodity Group	Area					
	Philippines		National Capital Region (NCR)		Areas Outside NCR (AONCR)	
	All Income	Bottom 30%	All Income	Bottom 30%	All Income	Bottom 30%
All Items	100.0	100.0	100.0	100.0	100.0	100.0
FBT	55.1	71.6	45.5	63.7	58.9	71.6
Clothing	3.7	3.4	3.0	2.3	3.9	3.4
H&R	14.7	6.9	22.4	12.1	11.7	6.9
FLW	5.7	5.6	6.6	7.5	5.4	5.6
Services	12.3	6.2	15.0	6.5	11.2	6.2
Miscellaneous	8.5	6.3	7.5	7.9	8.9	6.3

- **Philippines**

The FBT items which had the largest weight in both income groups in the Philippines had a much larger weight in the bottom 30% with 71.6 percent. Its weight in the all income group was estimated at 55.1 percent.

Low-income households in the country spent a big share of their income on FBT items, thus, lesser expenditure share was noted for the non-FBT items. The rest of the commodity groups have bigger weights in the all income than in the bottom 30%. The estimated weights for housing and repairs (H&R); miscellaneous items; services; fuel, light and water (FLW) and clothing among the low income families were 6.9 percent, 6.3 percent, 6.2 percent, 5.6 percent and 3.4 percent, respectively. These weights are lower compared to their corresponding all income's weights of 14.7 percent, 8.5 percent, 12.3 percent, 5.7 percent and 3.7 percent.

- **National Capital Region (NCR)**

While FBT items displayed the biggest weight in both income groups in NCR, families in the bottom 30% income ladder has a bigger expenditure share on FBT (63.7%) compared to those belonging to the all-income group (45.5%). Clothing items, in addition, accounted for the least weight at 3.0 percent in all income and 2.3 percent in the bottom 30%. Except for FLW and miscellaneous items, all other commodity groups have higher weights in the all-income group compared to the bottom 30% group.

- **Areas Outside the National Capital Region (AONCR)**

The same observations were noted in AONCR. The FBT items which weighed 58.9 percent in all income had a bigger weight in the bottom 30% at 71.6 percent. This was followed by H&R at 11.7 percent in all income and 6.9 percent in bottom 30%. It is observed that it is only in the area that the weight for FLW in the bottom 30% group was higher than its weight in the all income group. This resulted as all the regions registered higher expenditure in fuel.

Weights across regions likewise varied between all income and bottom 30% (Refer to Table 1).

- Compared to other regions, NCR had the biggest weight in the all-income category. On the other hand, in the bottom 30% group of families, NCR had the lowest weight.
- Except Regions III and IV, all other regions registered bigger weights in the bottom 30% group than in the all-income group. Regions III and IV, which had respective weights of 11.3 percent and 14.3 percent in the all income category, had relatively smaller weights in bottom 30%, correspondingly at 6.3 percent and 9.8 percent. The comparative weights of the other regions are as follows: Region V, 10.7 percent against 4.7 percent in all income; Region VIII, 7.6 percent against 3.0 percent; Region IX, 5.5 percent against 2.6 percent; ARMM, 3.9 percent against 1.5 percent; and Caraga, 4.5 percent against 2.0 percent.

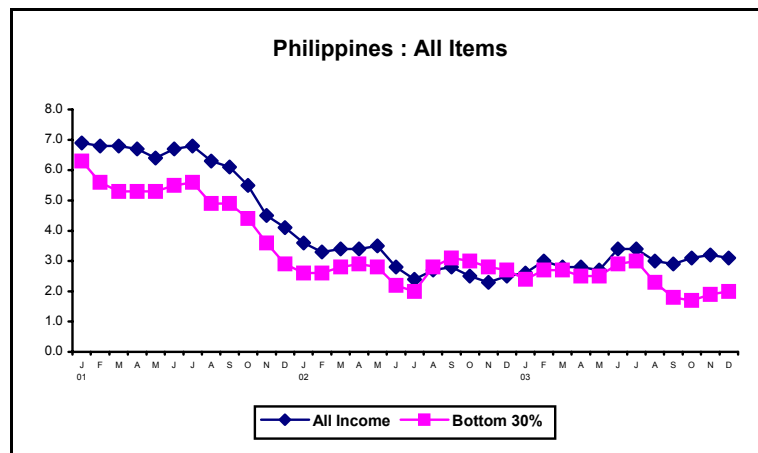
## B. Market Basket

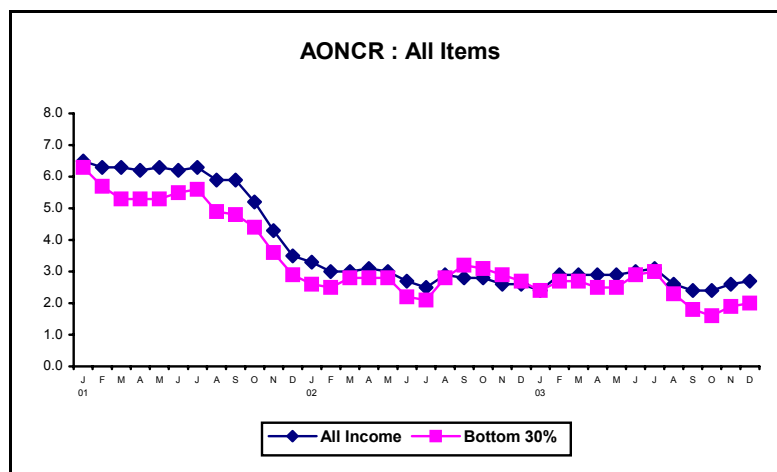
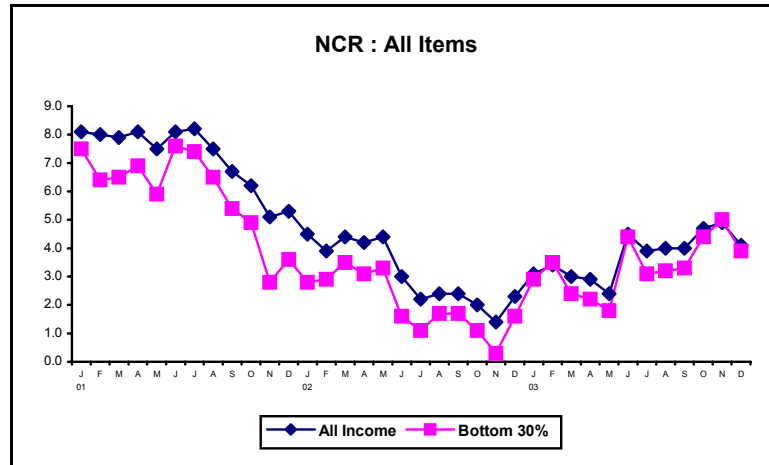
The market baskets used in the construction of the bottom 30% CPI series is a merged basket of the results of the updating activity done on the 1988 bottom 30% market basket and the results of the bottom 30% market basket in the 1994 Commodity and Outlet Survey. The bottom 30% market basket is a subset of the 1994-based all income market basket. Please refer to Table 2 for the percentage composition of items in the bottom 30% basket to that of the all income group.

- Of the 701 items in all income market basket in the National Capital Region (NCR), 447 or 63.8 percent belonged to the bottom 30%. In areas outside NCR, this number ranged from 30.2 percent (Baguio City) to 84.9 percent (Tarlac). The higher the percentage, the more likely the index in both series will have a similar behavior.
- By major commodity groups, the percentage composition of less than 50 percent of the all-income market basket were noted only in housing and repairs and miscellaneous items in most of the provincial baskets and in the services group in a few number of provinces. The rest of the commodity groups have market baskets comprising more than 50 percent of the all income group market basket. Percentages ranged from 51.1 percent (Nueva Vizcaya) to 89.9 percent (Zambales), of the all-income market basket, for FBT; 50.4 percent (South Cotabato) to 88.2 percent (Bataan), for clothing; and 56.3 percent (Iloilo City) to 100.0 (Tarlac), for FLW. Thus, there is similarity in the movements of the group index in areas where percentage composition of the bottom 30% market basket to the all income basket is high.

## IV. Comparison Of The Components Of The CPI

### Comparison Of Inflation Rates For All Income & Bottom 30% Income Group, 2001- 2003





### All Items

- Inflation rates in all income and bottom 30% income groups in the Philippines, NCR and AONCR in 2001 to 2003 generally moved in similar directions.
- Inflation rates for all income households in the Philippines, NCR and AONCR were generally higher than those of the bottom 30%.
- Annual average inflation rates for all income households slowed down from 6.1 percent in 2001 to 3.0 percent in 2002 in the Philippines, from 7.2 percent to 3.1 percent in NCR and from 5.7 percent to 2.9 percent in AONCR. In 2003, inflation in NCR picked up to 3.8 percent while inflation in AONCR further decelerated to 2.7 percent. Thus, the national average inflation rate remained at 3.0 percent during the year.
- Similarly, annual average inflation rates for bottom 30% in all areas also decelerated, from 5.0 percent in 2001 to 2.7 percent in 2002 in the Philippines and AONCR and from 6.0 percent to 2.0 percent in NCR. These further slowed down to 2.4 percent in the Philippines and 2.3 percent in AONCR in 2003. However, inflation in NCR went up to 3.3 percent.

### **Food, Beverages and Tobacco (FBT)**

- Inflation rates for all income and bottom 30% income group for the whole country both followed a fluctuating trend from 2001 to 2003.
- Generally, the whole country's inflation rates for the bottom 30% stood at lower levels than that of the all income group in 2001. This can be attributed to the decrease in the prices of selected food items included in the market basket of the bottom 30% specifically fresh eggs, fruits and vegetables that have bigger weights in this income category.
- On the contrary, inflation rates for the bottom 30% income category generally were higher than that of the all income households in 2002 until August 2003 in the Philippines and AONCR. This was brought about by the upward adjustments in the prices of selected food items such as corn, eggs, fish, fruits and vegetables that were emphasized in the bottom 30% because of the bigger weights attached to these commodities. Likewise, inflation rates in the bottom 30% in NCR were generally higher than the all income households in 2002 and 2003.
- However, inflation rates for FBT in the bottom 30% in the latter part of 2003 became lower than that of the all income category in the Philippines and AONCR as prices of the heavily weighted food items in the bottom 30% such as rice and corn eased in the two areas during the period. In NCR, lower inflation for FBT in the bottom 30% were only seen in November and December.

### **Clothing**

- Inflation rates for clothing items for both income categories in the three areas generally moved in the same direction with the rate in the all income series in NCR and the rate in the bottom 30% in AONCR generally at higher levels.
- The relatively higher annual growths registered by footwear and ready-made apparel together with the bigger weights attached to these commodities in the bottom 30% group triggered higher inflation rates in the series than in the all income group in the Philippines and AONCR in 2001. On the other hand, inflation rates for the all income category in NCR were higher than the bottom 30% in 2001 as add-ons in the prices of footwear and ready-made apparel which have much lower weights in the bottom 30% were offset by the higher prices of other clothing items which have bigger weights in this income category.
- Average annual inflation rates in the Philippines, NCR and AONCR in 2002 were lower in the bottom 30% than in the all income group. In 2003, annual average inflation rates in the Philippines for bottom 30% were still lower than the all income group. However, in NCR average inflation was slightly higher in the bottom 30% than in the all income while in AONCR average inflation for the two series stood at the same levels.

### **Housing and Repairs (H&R)**

- The inflation rates for H&R in all income and bottom 30% in NCR both fluctuated and stood at almost the same level. This resulted as the weighting pattern in both groups are the same.
- The rates for both income groups in AONCR also fluctuated from 2001 to 2003 with the rates for the bottom 30% generally at higher levels. This can be attributed to the increases in the prices of selected construction materials that were emphasized in the series because of the much bigger weights assigned to these items.
- The national rate for the bottom 30% was largely influenced by the behavior of AONCR's rates.

### **Fuel, Light and Water (FLW)**

- Average annual inflation rates posted in the three areas in 2001 and 2003 were lower in the bottom 30% than in the all income. In the all income basket, LPG has the second biggest weight among the fuel items thus rising prices of LPG during the period have greatly influenced the upward trend in its fuel index. In the bottom 30%, LPG has the lowest weight such that changes in its price have the least effect on the group's index. Electricity rates in the bottom 30% similarly do not include the 1000 kilo- watt - hour consumption where charges in tax are part of the electric bill. This consumption rate is not included in the bottom 30% hence increases in its rate are not accounted for in the series.
- Downward adjustments in purchased power adjustment (PPA) for electricity in NCR and improved price of LPG in AONCR were noted during the second half of 2002 in AONCR and until May 2003 in NCR. These price reductions were more emphasized in the all income CPI than in the bottom 30% CPI, thus, inflation rates in the bottom 30% were higher than that of the all income.

### **Services**

- Generally, average inflation rates in 2001 in the Philippines and AONCR were higher in the bottom 30% group than those in the all-income group. This was brought about by upward adjustments in some commodity groups in AONCR that have bigger weights in the bottom 30% like in the prices of some school supplies (notebooks, pad papers and pencils), higher charges for personal services specifically haircut for men and ladies and fare hikes in land transport (jeepney, bus and tricycle) and water transport. However, in 2002 and 2003, inflation rates in the all income were higher than those in the bottom 30% due to higher tuition fees in private schools in some college, high school, grade school and pre-school levels and add-ons in the prices of many items in personal, medical and recreational services subgroups in the all-income market basket which were not included in the bottom 30% market basket.
- Meanwhile, average inflation rates in NCR for bottom 30% in 2002 and 2003 were lower than those of the all income group. This resulted from the

increments in the prices of gasoline products and services items allied to transport that were not captured in the bottom 30%.

### **Miscellaneous Items**

- In the Philippines and AONCR, average inflation rates for miscellaneous items in both income groups followed the same trend for most of the period with the rate for bottom 30% generally at higher levels from 2001 to 2003.
- In NCR, average inflation rates for the bottom 30% were lower than those in the all income in 2001 to 2003.
- Higher inflation rates noticed for both income groups during the first five months of 2001 were brought about by the higher inflation rates posted in other miscellaneous items. The significant price increment of sweepstakes ticket at P 10.00 each started in June 2000 from its previous months' price of P5.00 per ticket.
- The differences in the levels of inflation rates in these areas resulted from the difference in the weighting patterns of the commodities belonging to this group.

### **V. Conclusion And Recommendation**

The importance to inflation of the expenditures for each commodity groups namely FBT, clothing, FLW, H&R, services and miscellaneous items is taken into account through their proportions to the total family expenditures embodied in a set of weights. These weights are applied accordingly to the corresponding changes in prices. Hence, a significant increase in the price of an item that has a big share in the market basket of the bottom 30% CPI will relatively have a bigger impact on the inflation of the bottom 30% CPI than in the all income CPI. An example is rice where its weight in the bottom 30% is 23.7 percent compared to 11.8 percent in the all income group. Similarly, the composition of the market basket greatly influenced the movement of the inflation rates.

A separate CPI for the Bottom 30% income group can provide a more appropriate deflator of income and inflator of food prices and other basic commodities commonly purchased by households in the said category. The index measures the composite change over time of the retail prices of goods and services being availed of by poor families. This more specific information shall serve as inputs to government planners and decision-makers in its effort to improve the standard of living of the Filipino in support of the poverty alleviation projects.

With the rebasing of the all income CPI to make it more reflective of the current price situation, it is recommended that the bottom 30% CPI should also follow the same base year of the all income CPI for comparison purposes.

It is also recommended that a survey similar to the Commodity and Outlet Survey will be conducted to update the market basket for this special group. Using the results of the latest Family Income and Expenditure Survey, it is further

recommended that a study on the cut-off income group be made to really determine the income brackets where the "poor" families belong. Once these brackets are identified, the income cut-off to be used in generating the weights for constructing the CPI for families belonging to the bottom portion of the income levels will then be adjusted and a separate CPI can be generated for the group.