Northern Mariana Islands

A: Identification

Title of the CPI: Consumer Price Indices for Saipan, Rota and Tinian

Organisation responsible: Centrals Statistics division, CNMI Department of Commerce.

Periodicity: Quarterly

Index reference period: September third Quarter 2009 = 100


Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation of rents, contracts and/or other payments and main inflation indicator used for monetary policy.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of the quarterly changes in prices of a "basket" of goods and services, which are a representative of purchases by private households in the CNMI.

Classification: Classification of the items included in the CNMI's is according to BLS classification system with 9 major groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

Sampling methods:

Outlets: Judgmental sampling
Products: Sampling with probability proportional to size (PPS)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The “Probability Proportional to Size” sampling method was used to select a new item sample. The technique ensured that those items with the highest monthly household expenditures were selected in the sample. The sample included a total of 161 items for Saipan, 147 for Tinian, and 129 for Rota.

**E: Data Collection**

Approximate number of localities, outlets and price observations: Localities: 3, Outlets: 170 - Saipan, 30 - Tinian and 60 - Rota

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of seasonal items and seasonality

Treatment of housing

**F: Computation**

Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Chained form)

Formula to aggregate elementary indices to higher level indices: Aggregation of elementary indices to higher level indices is by the Laspeyre’s formula. The Laspeyre’s formula is expressed as:

\[ I_t = \frac{\sum_{i=1}^{n} P_t Q_0}{\sum_{i=1}^{n} P_0 Q_0} \times 100 \]

where

- \( I_t \) = The index at time point \( t \)
- \( P_t \) = The price at time point \( t \)
- \( P_0 \) = The price at the base period
- \( Q_0 \) = The quantity at the base period
- \( n \) = The number of commodities being priced
- \( i \) = Commodity \( i \) (where \( i \) goes from 1 to \( n \))

**G: Editing and validation procedures**

**H: Documentation and dissemination**

Level of detailed CPI published
**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Consumer Price Index, Quarterly publication; CSD website: http://commerce.gov.mp/divisions/central-statistics/

**Publications and websites where methodological information can be found:** CPI explanatory notes can found in the quarterly CPI bulletins which are available at CSD website; http://commerce.gov.mp/divisions/central-statistics/

**I: Other Information**

Completed by ILO in 2013.