Department of Commerce Central Statistics Division



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GENERAL INFORMATION

Saipan's Consumer Price Index (CPI) measures price changes in a sample of goods and services normally purchased by households in the CNMI. Like the U.S. CPI, it is based on the concept of representative "market basket," a sample of goods and services that households purchase. The CPI was first developed during the early part of 1977 and was rebased in 2003 and 2008. The derivation of the weights was based on household expenditures from a household, income, and expenditures survey conducted in 2005 on Saipan, Rota and Tinian by the CSD with assistance from the U.S. Census Bureau and Technical Assistance Funding from Department of Interior's Office of Insular Affairs.

Over 1,000 prices are collected each month for more than 160 items in 9 major groups. These groups and their respective relative importances are shown below:

CPI GROUPS AND RELATIVE IMPORTANCES

Group	Relative Percent
Food	17.1
Alcoholic Beverages	1.4
Housing and g & Utilities	30.4
Apparel	6.1
Transportation	22.2
Medical Care	10.7
Recreation	3.4
Education and Communication	5.6
Other Goods and Services	3.1
All Items Index	100.0

Calculating the Consumer Price Index

As with most CPI's around the world, the CSD uses the Laspeyres method to calculate the CPI. This is the most widely-used and internationally-accepted method of calculating price changes for a CPI. The Laspeyres formula is shown below:

$$I_n = \left(\sum_{i=1}^n \frac{p_i q_0}{\sum_{i=1}^n p_0 q_0}\right) \quad \mathbf{X} \quad 100$$

Close to 1,200 price quotations are collected during the middle month of each quarter for computing the CPI. The total number of business and government outlets included in the collection and construction of the CPI is approximately 280, ranging from major retail outlets and grocery stores to a variety of services, and other establishments such as gas distributors, restaurants and government utility offices.

Interpreting index changes,

In compiling the CPI, price movements for the different component items are combined using WEIGHTS, which represent the relative importance of each of the components to total expenditure of the population.

In determining price relatives, average prices of the selected market basket are matched to previous prices to get actual movements. These price relatives are then multiplied by the previous expenditure weights to derive new expenditure weights. These weights are then combined into composite expenditure groups. The sample is not large enough to provide indexes below the group levels.

Table 1

Consumer Price Indexes and Percent Changes for the 1st Quarter 2009 COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 4th Quarter 2008 = 100

Groups	1st Qtr 2009	4th Qtr 2008	1st Qtr 2008	To 1st Qtr09 fm 4th Qtr08	To 1st Qtr 09 fm 1st Qtr 08
All Items	100.2	100.0	94.7	0.2	5.8
Food	100.6	100.0	94.3	0.6	6.7
Alcoholic Beverages	106.5	100.0	102.0	6.5	4.4
Housing and Utilities	99.8	100.0	92.3	-0.2	8.1
Apparel	99.8	100.0	101.0	-0.2	-1.2
Transportation	100.5	100.0	95.7	0.5	5.0
Medical Care	102.8	100.0	99.8	2.8	3.0
Recreation	100.2	100.0	104.4	0.2	-4.0
Education and Communication	96.4	100.0	99.2	-3.6	-2.9
Other Goods and Services	101.7	100.0	92.9	1.7	9.5

Source: Department of Commerce, Central Statistics Division

Table 1

Consumer Price Indexes and Percent Changes for the 2nd Quarter 2009 COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 4th Quarter 2008 = 100

Groups	2nd Qtr 2009	1st Qtr 2009	2nd Qtr 2008	To 2nd Qtr09 fm 1st Qtr09	To 2nd Qtr09 fm 2nd Qtr 08
All Items	101.5	100.2	100.3	1.3	1.2
Food	101.6	100.6	94.6	1.0	7.4
Alcoholic Beverages	106.5	106.5	102.8	0.0	3.6
Housing and Utilities	101.3	99.8	105.8	1.5	-4.3
Apparel	100.8	99.8	99.9	1.0	0.9
Transportation	103.4	100.5	98.8	2.9	4.7
Medical Care	102.8	102.8	99.8	0.0	3.0
Recreation	102.1	100.2	101.7	1.9	0.4
Education and Communication	99.7	96.4	99.2	3.5	0.5
Other Goods and Services	101.7	101.7	92.9	0.0	9.5

Source: Department of Commerce, Central Statistics Division

Table 1

Consumer Price Indexes and Percent Changes for the 3rd Quarter 2009 COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 4th Quarter 2008 = 100

Groups	3rd Qtr 2009	2nd Qtr 2009	3rd Qtr 2008	To 3rd Qtr09 fm 2nd Qtr09	To 3rd Qtr09 fm 3rd Qtr 08	
All Items	101.9	101.5	99.8	0.4	2.1	
Food	104.6	101.6	97.7	3.0	7.0	
Alcoholic Beverages	106.7	106.5	99.2	0.2	7.5	
Housing and Utilities	97.9	101.3	104.3	-3.4	-6.2	
Apparel	103.5	100.8	99.4	2.6	4.1	
Transportation	105.4	103.4	92.3	2.0	14.2	
Medical Care	102.3	102.8	96.7	-0.5	5.8	
Recreation	104.9	102.1	100.0	2.8	4.9	
Education and Communication	95.5	99.7	99.5	-4.3	-4.1	
Other Goods and Services	102.3	101.7	100.0	0.6	2.3	

Source: Department of Commerce, Central Statistics Division

Table 1

Consumer Price Indexes and Percent Changes for the 4th Quarter 2009 COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

4th Quarter 2008 = 100

Groups	4th Qtr 2009	3rd Qtr 2009	4th Qtr 2008	To 4th Qtr09 fm 3rd Qtr09	To 4th Qtr09 fm 4th Qtr 08
All Items	105.6	101.9	100.0	3.7	5.6
Food	106.1	104.6	100.0	1.4	6.1
Alcoholic Beverages	106.5	106.7	100.0	-0.2	6.5
Housing and Utilities	108.0	97.9	100.0	10.3	8.0
Apparel	104.3	103.5	100.0	0.8	4.3
Transportation	108.5	105.4	100.0	2.9	8.5
Medical Care	101.5	102.3	100.0	-0.8	1.5
Recreation	105.1	104.9	100.0	0.2	5.1
Education and Communication	95.6	95.5	100.0	0.1	-4.4
Other Goods and Services	102.8	102.3	100.0	0.5	2.8

Source: Department of Commerce, Central Statistics Division

Table 2
HISTORICAL CPIs FOR SELECTED GROUPS
COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
1st Quarter 2003 / 4th Quarter 2008 = 100

Year &		Alcoholic	Housing			Medical		Education	Other Goods	All
Quarter	Food	Beverages	Utilities	Apparel	Transportation	Care	Recreation	Communication	& Services	Items
Wgts	19.02	1.72	27.73	2.24	33.52	2.36	2.44	5.68	5.30	100.0
2000.1	93.7		67.5	107.0	92.8	78.0				82.4
2000.2	92.6		67.8	105.9	94.9	85.6				84.5
2000.3	94.4		68.6	106.4	97.0	86.1				85.7
2000.4	91.7		66.0	106.5	97.1	85.7				84.1
2001.1	88.2		66.4	106.5	96.8	85.3				83.2
2001.2	90.4		66.3	106.0	96.3	85.3				83.5
2001.3	89.9		68.2	106.0	95.9	85.2				83.6
2001.4	90.7		67.0	106.9	94.5	85.0				83.6
2002.1	89.2		67.3	105.7	95.2	90.6				84.8
2002.2	87.3		64.4	106.4	96.6	90.3				83.7
2002.3	86.1		66.3	106.2	96.6	90.4				83.7
2002.4	83.8		65.7	100.1	96.9	90.4				82.5
2003.1	84.2	95.9	65.5	98.6	95.7	92.5	101.9	98.7	92.9	83.0
2003.2	84.4	96.1	65.5	98.8	95.4	92.5	101.2	98.5	92.9	82.9
2003.3	84.7	95.9	65.0	99.6	95.4	92.5	101.0	98.9	92.9	82.8
2003.4	84.6	95.8	64.1	99.1	96.2	92.5	98.2	98.3	92.9	82.6
2004.1	86.8	95.8	64.4	99.5	96.2	92.5	97.5	98.2	92.9	83.2
2004.2	87.6	95.6	64.0	98.4	96.6	92.5	103.5	98.3	100.6	83.7
2004.3	88.6	96.0	63.8	94.2	95.7	92.5	100.8	97.4	100.6	83.4
2004.4	90.4	95.8	64.2	91.3	95.9	92.5	100.5	99.6	100.6	84.0
2005.1	90.0	95.9	64.3	96.6	96.3	92.5	100.7	96.7	100.6	84.1
2005.2	85.5	103.3	66.3	96.9	92.4	93.2	101.9	100.2	91.4	89.9
2005.3	84.3	96.3	65.7	98.7	92.2	92.8	102.0	98.3	94.2	83.0
2005.4	84.7	95.5	65.6	100.8	95.2	92.5	101.7	99.5	93.9	83.0
2006.1	85.3	96.8	65.7	100.1	109.1	92.8	108.6	101.7	93.6	83.0
2006.2	84.4	96.1	65.5	99.6	96.2	92.5	101.9	99.4	92.9	83.0
2006.3	93.7	97.1	65.5	137.8	96.2	92.5	101.9	100.9	92.9	83.0
2006.4	94.0	98.1	65.5	138.6	96.0	92.5	101.9	97.8	93.3	83.0
2007.1	88.3	99.6	92.3	100.4	95.7	92.5	102.2	99.5	92.9	93.3
2007.2	89.4	99.6	94.6	100.7	95.7	93.5	102.3	99.3	92.9	94.4
Year &		Alcoholic	Housing			Medical		Education	Other Goods	All
Quarter	Food	Beverages 1.72	Utilities	Apparel	Transportation	Care	Recreation	Communication	& Services	Items
Wgts	19.02		27.73	2.24	33.52	2.36	2.44	5.68	5.30	100.0
2007.3	89.6	99.6	94.7	100.9	95.7	93.5	102.8	99.3	92.9	94.4
2007.4	90.4	100.0	94.9	100.9	95.7	93.5	103.0	99.3	92.9	94.7
2008.1	94.3	102.0	92.3	101.0	95.7	99.8	104.4	99.2	92.9	94.7
2008.2	94.6	102.8	105.8	99.9	98.8	99.8	101.7	99.2	92.9	100.3
2008.3	97.7	99.2	104.3	99.4	92.3	96.7	100.0	99.5	100.0	99.8
2008.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2009.1	100.6	106.5	99.8	99.8	100.5	102.8	100.2	96.4	101.7	100.2
2009.2	101.6	106.5	101.3	100.8	103.4	102.8	102.1	99.7	101.7	101.5
2009.3	104.6	106.7	97.9	103.5	105.4	102.3	104.9	95.5	102.3	101.9
2009.4	106.1	106.5	108.0	104.3	108.5	101.5	105.1	95.6	102.8	105.6

1 The previous Consumer Price Index had only 5 major groups rather than the 9 that are in the revised CPI. Nevertheless, these historical CPIs will provide users with some indication of historical price movement of the CPI.

Source: Department of Commerce, Censtral Statistics Division

Table 3

CONSUMER PRICE INDEX FOR 9 SELECTED GROUPS COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 1st Quarter 2003 / 4th Quarter 2008 = 100

Year &	All		Alcoholic	Housing			Medical		Education and	Other Goods
Quarter	Items	Food	Beverages	Utilities	Apparel	Transportation	Care	Recreation	Communication	& Services
2003.1	83.0	84.2	95.9	65.5	98.6	95.7	92.5	101.9	98.7	92.9
2003.2	82.9	84.4	96.1	65.5	98.8	95.4	92.5	101.2	98.5	92.9
2003.3	82.8	84.7	95.9	65.0	99.6	95.4	92.5	101.0	98.9	92.9
2003.4	82.6	84.6	95.8	64.1	99.1	96.2	92.5	98.2	98.3	92.9
2004.1	83.2	86.8	95.8	64.4	99.5	96.2	92.5	97.5	98.2	92.9
2004.2	83.7	87.6	95.6	64.0	98.4	96.6	92.5	103.5	98.3	100.6
2004.3	83.4	88.6	96.0	63.8	94.2	95.7	92.5	100.8	97.4	100.6
2004.4	84.0	90.4	95.8	64.2	91.3	95.9	92.5	100.5	99.6	100.6
2005.1	84.1	90.0	95.9	64.3	96.6	96.3	92.5	100.7	96.7	100.6
2005.2	89.9	85.5	103.3	66.3	96.9	92.4	93.2	101.9	100.2	91.4
2005.3	83.0	84.3	96.3	65.7	98.7	92.2	92.8	102.0	98.3	94.2
2005.4	83.0	84.7	95.5	65.6	100.8	95.2	92.5	101.7	99.5	93.9
2006.1	83.0	85.3	96.8	65.7	100.1	109.1	92.8	108.6	101.7	93.6
2006.2	83.0	84.4	96.1	65.5	99.6	96.2	92.5	101.9	99.4	92.9
2006.3	83.0	93.7	97.1	65.5	137.8	96.2	92.5	101.9	100.9	92.9
2006.4	83.0	94.0	98.1	65.5	138.6	96.0	92.5	101.9	97.8	93.3
2007.1	93.3	88.3	99.6	92.3	100.4	95.7	92.5	102.2	99.5	92.9
2007.2	94.4	89.4	99.6	94.6	100.7	95.7	93.5	102.3	99.3	92.9
2007.3	94.4	89.6	99.6	94.7	100.9	95.7	93.5	102.8	99.3	92.9
2007.4	94.7	90.4	100.0	94.9	100.9	95.7	93.5	103.0	99.3	92.9
2008.1	94.7	94.3	102.0	92.3	101.0	95.7	99.8	104.4	99.2	92.9
2008.2	100.3	94.6	102.8	105.8	99.9	98.8	99.8	101.7	99.2	92.9
2008.3	99.8	97.7	99.2	104.3	99.4	92.3	96.7	100.0	99.5	100.0
2008.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2009.1	100.2	100.6	106.5	99.8	99.8	100.5	102.8	100.2	96.4	101.7
2009.2	101.5	101.6	106.5	101.3	100.8	103.4	102.8	102.1	99.7	101.7
2009.3	101.7	103.8	106.7	98.8	103.8	104.9	99.5	104.7	99.0	101.9
2009.4	105.6	106.1	106.5	108.0	104.3	108.5	101.5	105.1	95.6	102.8

Source: Department of Commerce, Central Statistics Division