# I Outline of the 2010-Base Consumer Price Index

## 1 Characteristics of the index

The Consumer price index (CPI) is calculated to comprehensively measure the price fluctuation of goods and services purchased by households nationwide in the time series. It reflects changes of the cost of purchasing goods and services in a fixed "market basket", but is not designed to measure changes of the cost of living attributed to the changes of types, quality and quantity of goods and services consumers purchase.

#### 2 Outline of the index

#### (1) Scope of the CPI

Since the CPI measures the price changes affecting the life of households as consumers, the scope should be the living expenditure of a household economy (religious contributions, donations, money gifts, other obligation fees and remittances are excluded).

Thus, expenditure such as direct tax and social insurance premiums (non-consumption expenditure), security purchases, land and housing purchases (expenditure for saving and property purchases) are not included in the scope of the CPI.

Housing cost of owner-occupied housing is incorporated into the index by the "imputed rent" approach (Refer to "I [Reference] Treatment of the housing services of owner-occupied houses").

# (2) Index formula

The index is calculated as the weighted arithmetic mean with a fixed basket in the base period preceding the observation period (Laspeyres formula).

$$I_{t} = \frac{\sum_{i=1}^{n} p_{t,i} q_{0,i}}{\sum_{i=1}^{n} p_{0,i} q_{0,i}} \times 100 = \frac{\sum_{i=1}^{n} \frac{p_{t,i}}{p_{0,i}} w_{0,i}}{\sum_{i=1}^{n} w_{0,i}} \times 100$$

$$I : \text{ index}$$

$$p : \text{ price} \qquad q: \text{ quantity}$$

$$w: \text{ weight } (=pq)$$

$$i : \text{ item}$$

$$0: \text{ base period} \qquad t: \text{ observation period}$$

#### (3) Base period and weight reference period

Both the index reference period and the weighting reference period are the calendar year 2010.

The weight is mainly calculated by average monthly expenditure by item per household in 2010, which is obtained from the Family Income and Expenditure Survey (FIES) (Fundamental Statistics Survey based on the Statistics Act (Law No. 53, 2007) (Refer to "III 4 Calculation of the weight  $(W_0)$ ").

# (4) Items to be priced

The number of items priced for the calculation of the index (hereinafter referred to as "index

items" or simply "items") totals 588, consisting of 587 items and an item of imputed rent of owner-occupied housing (including 5 items priced only in Okinawa Prefecture). Items are selected with consideration of the importance of each item relative to total living expenditure, the representativeness of price movements and feasibility of price data collection, in order to represent the price movement of all goods and services purchased by households.

As for the items, refer to "IV List of information for items of the 2010-Base Consumer Price Index".

# (5) Price data

a) In principle, the prices of index items are derived from the retail prices of each municipality and the items obtained by the Retail Price Survey (RPS) (Fundamental Statistics Survey based on the Statistics Act (Law No. 53, 2007)).

Note that the number of surveyed municipalities (villages, towns and cities) is 167.

b) As for three items, "Personal computers (desktop)", "Personal computers (notebook)" and "Cameras", the average prices sold for each product derived from scanner data from the POS information, collected from major electric appliance shops nationwide, are used for compiling the price indices.

#### (6) Index calculation

Firstly, the indices for the smallest groups are calculated by averaging the item indices, which are calculated by dividing the price in the observation period (refer to "III 1 Calculation of the prices in the observation period ( $P_t$ )") by the price in the base period (refer to "III 3 Calculation of the prices in the base period ( $P_0$ ), with a weighting assigned to each item in the group. Secondary, Indices thus obtained are averaged with weight for each group, to obtain the indices for the groups immediately above the smallest groups. Repeating the same procedure, the indices for the minor groups, subgroups, the 10 major groups and the Japan index are obtained in succession.

In the case of the Japan index, the index is calculated as follows. First, the index of the relative price by item is calculated for each municipality and then averaged with the respective weighting for each municipality to obtain the average price index by item nationwide. Then this index is averaged with weight for each item for the whole country to obtain upper level groups and the all items index. The same procedure is also taken for the city groups and districts.

### 3 Index series available

#### (1) Basic classification indices

a) As for basic classification indices, all items, 10 major groups, subgroups, minor groups and individual items are calculated for Japan and the Ku-area of Tokyo. In addition, as for 69 i.e. city classes (5 groupings), districts (10 groupings), large cities (4 groupings), cities with prefectural governments (excluding the Ku-area of Tokyo), and part of the government ordinance–designated cities (cities of Kawasaki-shi, Hamamatsu-shi, Sakai-shi and Kitakyushu-shi) (50 groupings), indices for all items, ten major groups and subgroup indices are calculated.

b) As for the reference to basic classification indices, indices for "All items, less imputed rent", "All items less fresh food", "All items less imputed rent and fresh food" and "All items, less food (less alcoholic beverages) and energy" are calculated.

(2) Goods and service group indices

a) Goods and service group indices are calculated for Japan and the Ku-area of Tokyo.

b) As for the reference to Goods and service group indices, indices for "Services, less imputed rent" and "Fees for public services" are calculated.

(3) Indices aggregated based on baskets of specific household groups

The following indices are calculated for Japan.

a) Subgroup Index for Total Households<sup>1</sup>

b) Subgroup Index by Yearly Income Quintile Group of Worker's Households

c) Subgroup Index for Retired Elderly Households

d) 10 Major Group Index by Age Group of Household Head

e) 10 Major Group Index by Occupation of Household Head

f) 10 Major Group Index by Type of Tenure of Dwelling of Household Head

(4) Indices by the characteristic of items

The following indices are calculated for Japan.

a) Indices of Goods Groups Classified According to Elasticity to Living Expenditure

b) Indices of Annual Purchase Frequency Classes

(5) Seasonally adjusted indices

The following 8 groupings indices are calculated for Japan and the Ku-area of Tokyo. Basic classification indices:

- All items
- All items, less fresh food
- All items, less imputed rent
- All items, less imputed rent & fresh food
- All items, less food (less alcoholic beverages) and energy

Goods and Service Group Indices:

- Goods
- Semi-durable goods
- Goods, less fresh food
- (6) Supplementary indices

The following indices are calculated up to the middle classification for Japan.

<sup>&</sup>lt;sup>1</sup> Total households include both one-person households and two-or-more-person households.

- a) CPI calculated by Laspeyres' Chain Index Method
- b) CPI calculated by Midpoint-year Basket Method

# (7) Others

The following indices are calculated.

- a) 5 major group indices (prewar base) for the Ku-area of Tokyo
- b) Subgroup index (2005-base) for Japan and Ku-area of Tokyo
- c) Regional difference index of consumer prices

# 4 Publication of the CPI

In principle, the CPI is released at 8:30 A.M. on Friday of the week including the 26<sup>th</sup> of each month. The index figures of the preceding month for the whole country and the preliminary figures of the current month for the Ku-area of Tokyo are released. The average index figures for the calendar year and fiscal year are released when the monthly figures for December and March are released respectively.

(1) Published report on the CPI	This report contains basic classification indices, goods and service group indices for Japan and the
	Ku-area of Tokyo. This is available on the date of
	public release and also available on the Internet
	website.
(2) Monthly report on the CPI	This report contains all series of indices and major
	time series indices about the month concerned.
	This is available only on the Internet website.
(3) Annual report on the CPI	This report contains monthly and annually indices
	of basic classification, goods and service group. It
	also contains indices of characteristics of
	households and items. This is published in the
	following spring of the corresponding year, and
	also available on the Internet website.

[Reference] Treatment of the housing services of owner-occupied houses

To include the housing cost of owner-occupied housing in the price index, the imputed rent index and the all items  $index^2$  including the imputed rent have been calculated since 1970 by the imputed rent approach.

In the Family Income and Expenditure Survey (FIES), which is used for calculating weights of the CPI, the purchase of housing is regarded as a purchase of property (capital accumulation), not included in the living expenditure. However, shelter services derived from houses purchased instead of renting houses are considered to account for a large portion of actual consumption, so it may not be reasonable that it is not included only because of lack of monetary transaction. Therefore, the housing services of owner-occupied housing are incorporated into the CPI considering they are equivalent to house rents of similar houses, which is called the "imputed rent" approach. The treatment of housing cost of owner-occupied housing in the CPI differs by countries. The ILO manual, the "Consumer Price Index Manual: Theory and Practice" published by the International Labor Organization (ILO) in 2004, indicates that there are three approaches to deal with the housing cost of owner-occupied housing, i.e. (i) acquisition, (ii) payment and (iii) use. In Japan, focusing on approach (iii), the housing cost of owner-occupied housing is incorporated into the CPI as a necessary rental cost if the owner occupied housing is rented housing.

In the practical index calculation, weights based on the imputed rent of owner-occupied housing by the National Survey of Family Income and Expenditure<sup>3</sup> (NSFIE), which is conducted every five years (the year before the base year), are calculated, and the 'house rent, private' by the RPS is substituted for the monthly price change of the imputed rent (Refer to "Appendix 3 Calculation of the weights for the imputed rent").

 $<sup>^2</sup>$  Since the 1985-base "All items, including imputed rent", which had been calculated as a reference series, has been used as a general index of the main series.

 $<sup>\</sup>frac{3}{3}$  In the 2010-base revision, the 2009 result was used.

# II Outline of the 2010-Base Revision of the Consumer Price Index

#### 1 Introduction

The purpose of the CPI is to sequentially determine the fluctuation of prices by comprehensively measuring the fluctuation of prices of goods and services purchased by households nationwide. The measurement commenced in August 1946 shortly after the end of World War II, since which time the CPI has been continually calculated and published every month.

As the movement of prices is closely related to Japan's economic activities, the CPI is one of the key indices used to formulate and promote economic policy. In addition, it is also used for various other applications such as price indexation for the national pension plan and employees' pension plans, a deflator to actualize important economic indices, calculation of the estimated principal of national bond interlocking to prices (amount of principal after increase or decrease by interlocking to price movement). Also, it is widely used for governmental and private purposes such as revision of wages, housing rent and public charges as a benchmark.

#### 2 Aim of the revision

Normally, the CPI is calculated by fixing the basket of consumer goods and survices of the base period, and thus indicating the change on prices based on the differences of costs relative to those of the base period. However, the consumption structure of households changes year on year along with the appearance of new goods and services, and changes in their tastes. If the consumption structure were fixed for an extended period, the index would not reflect the actual condition. Therefore, we have periodically revised the base period and reconsidered the index items, the weights, etc ("base revision"). Since the 1955-base revision of the CPI, the base period of the CPI has been revised every five years, in the year when the last digit is 0 or 5.

In April 2010, the "Statistical standards on the base period of index" (Ministry of Internal Affairs and Communications Notice No. 112, March 31, 2010) was newly established based on Article 28, paragraph 1 of the Statistics Act (Act No. 53 of 2007), as the statistical standards stipulated by Articles 2, paragraph 9 of the Statistics Act<sup>4</sup>. The 2010-base revision of the CPI has been carried out to reflect changes in economic situations after the 2005-base revision on the principle shown in the statistical standards on the base period of index.

#### 3. Main points of the revision

(1) Revision of the CPI base period

The base period and weight reference period of the CPI were revised from 2005 to 2010.

The CPI is used to determine the movement of prices over time. To enable comparison between new and old indices after the revision of the base period and weights, the indices before December 2009 have been converted into the 2010 base period and linked (linking of old and new

<sup>&</sup>lt;sup>4</sup> "Statistical standards on the base period of index" was established based on the Statistics Act. The contents were based on the "Updating the base period of index and weight", as reported by the statistics council in March 1981 and revised taking the actual operation of the report into consideration. It is said that the base period of the index should be revised every five years, in the year when the last digit is 0 or 5.

indices).

The linking of old and new indices was performed for areas, all items, groups and items (there was no recalculation to the upper group index with the linked index). The calculation has been performed by dividing the index of each base period by the annual index of the next base year and multiplying it by 100.

For example; when the 2005-base index is linked to the 2010-base index;

The month m of the year y 2010-base linking index

= (month m of the year y 2005-base index / 2010 annual index of 2005-base) × 100

The rates of change are not recalculated with the linked index but the published values for every base period are used unmodified. Also, the rates to the same month of the previous year from January to December of the base period (2010) are calculated with the old base period (2005) index. To facilitate the utilization of the index in relation to other economic indicators with the 2005-base year, the 2005-base indices are calculated and published until December 2011.

Subsequently, the 2005-base conversion index, which is calculated by multiplying the 2010 annual index of the 2005-base by the 2010-base index of each month and being divided by 100, will be calculated and published until the publication of the 2015-base index.

# (2) Revision of items

Items whose importance for household consumption expenditure has increased or decreased have been included or omitted respectively from the index items.

As a result, the number of items used for the 2010-base index has been 588, including 5 items surveyed only in Okinawa Prefecture.

Included items: 28 items; Omitted items: 22 items, including 3 items surveyed only in Okinawa Prefecture

Integrated items: 15 into 4 items; items changed their survey periods: 14 items

Revised items in the 2010-base are shown in the appendix.

For goods and services subject to rapid diffusion or degeneration during the period between the revision of the base and the next revision, it is discussed whether to include or omit new items before the next revision to enhance the accuracy of the index (midpoint-year revision).

< Standards for the selection of included items >

i) Items whose importance in the living expenditure increased due to change in the consumption structure owing to the appearance and spread of new goods and services, and taste changes.

ii) Items that can contribute to improve accuracy and to retain representativeness of subgroup indices.

iii) Items that can be smoothly collected their prices and correctly represent their price changes. Items meet the all standards of i) to iii) above are to be the included items.

< Standards for the selection of omitted items >

i) Items whose importance for living expenditure has decreased, due to changes in the consumer patterns.

ii) Items that even when eliminated do not affect the ability to ensure the accuracy and representativeness of the subgroup indices.

iii) Items that become difficult to collect smoothly or those where the price changes cannot be clearly shown.

Items corresponding to one of the three conditions (i to iii) above are omitted. However, when omitment of these items may adversely affect the accuracy of the subgroup indices, they are not omitted.

#### (3) Weight revision

The weights used to calculate the 2010-base CPI have been calculated on the basis of average household expenditures by item per month in 2010, principally derived from the FIES (concerned with two-or-more-person households). For fresh food, however, monthly weights (for "Fresh fish & seafood", "Fresh vegetables" and "Fresh fruits", group weights are fixed for every month) have been calculated not only based on the expenditures by item in 2010 but also the purchase quantity in each month of 2009 and 2010 because the purchase quantity per month per item differs significantly.

Weights assigned to items, such as "pocket money" and "social expenses" in the FIES, have been distributed to other items using the results of "private living expenditure" derived from the NSFIE in 2009. The weights of imputed rent have been calculated using the "imputed rent for owned houses" of the NSFIE in 2009.

#### (4) Revision of the price index calculation method using a model formula

Some items such as airplane fares, electricity and mobile telephone charges have various fare structures, with prices that vary according to the purchased conditions. To accurately reflect the price fluctuation in the price index, monthly indices for these items are calculated with a special formula (model formula) which is designed by using a typical utilization case of each item as a model. Prices surveyed by the RPS are used to calculate these indices. The results of other statistics are used for ratios to formulate the prices of model cases.

For some of the items using the model formula to calculate their indices (hereinafter referred to as "model item"), the charging systems or price structures of which are further diversified, the calculation formula has been revised to accurately reflect actual conditions to the price indices.

#### (5) Revision of calculation method for the index of house rent, private

The index of house rent, private of 2005-base was calculated by the following procedures: All private rental houses within the survey areas were surveyed for each municipality,

The living households were categorized into four classes such as "small wooden houses", "medium-sized wooden houses", "small non-wooden houses" and "medium-sized non-wooden

houses",

The rent per  $3.3 \text{ m}^2$  for each class was calculated based on the total amount of rent and total floor area in a municipality.

The index was calculated by using the rent per 3.3m<sup>2</sup> and each of the four classes were published as an item.

The following two points have been modified in the 2010 base:

a) Introduction of a carry-forward process for moving-out

In the formula used for the 2005 base, when households move out and the houses become vacant, the average rent in the municipality changes due to a decrease in the number of samples, which may have substantially affected the index.

To avoid this negative impact, the carry-forward process (process to assume the previous month rent continuing to this month when the rent cannot be surveyed) has been newly introduced. This process assumes that the rent is continued at the same price for a period until the next tenant uses the house when a household moves out and the house becomes vacant.

b) Measures for change in the composition ratios of the four classes (small wooden houses, medium-sized wooden houses, small non-wooden houses and medium-sized non-wooden houses)

The composition ratios of house rent, private (the abovementioned four classes) may change after the base year due to conditions such as an increase or decrease in rental houses and households' moving out and moving in. If the composition ratio used to calculate the index is fixed to the base period, changes in the amount of rent may affect the index more significantly than the actual conditions.

To mitigate the negative impact, only the weight of one item of "house rent, private" is fixed to the base period as a model item and the composition ratio of the four classes of the house rent, private has been designed to be revisable according to actual conditions.

As for the calculation process, indices for the house rent, private of four classes (small wooden houses, medium-sized wooden houses, small non-wooden houses and medium-sized non-wooden houses) are calculated as before, whereupon the results are aggregated to calculate the price index of house rent, private.

For the "imputed rent", only one item of "imputed rent" has been selected to fix the weight to the base year, as in the case of "house rent, private".

#### (6) Quality adjustment

The CPI must be calculated from the price movement of goods and services having equal quality. Therefore, the characteristics of commodities such as their function, standards and quantity (hereinafter referred to as "specifications") are stipulated in detail for the Retail Price Survey. Moreover, with representativeness in mind, the commodities to be surveyed are assumed to be specifications with a higher rate of consumption expenditure.

However, the revision of specifications may be required due to changes in conditions such as discontinued products and market availability. In these cases, factors other than price fluctuation such as changes in quality must be eliminated (quality adjustment) before and after the revision of

the specifications.

For this quality adjustment, various other methods are available, including the overlap method, adjustment by the ratio of quantity, adjustment by the single regression equation, option cost method, class mean imputation, hedonic approach, direct comparison and so forth. The suitability of these methods should be carefully examined to adopt according to the actual conditions and the most suitable method should be selected for each item (refer to "III 2 Quality adjustment during calculation of the prices in the observation period").

# (7) Revision of publishing series and classification items

#### (a) Basic classification index

For index by city groups, "small cities B" (cities with populations of less than 50,000) and "towns and villages" have been collectively unified into a single class, while "6 large cities" and "all cities" have been omitted.

(b) Goods and services group index

For the classification of goods, "industrial products manufactured by large enterprises" and "industrial products manufactured by small and medium enterprises" in the classification of industrial products have been omitted due to the difficulty in clearly classifying them based on the diversification of product development by enterprises.

Also, house rent, private (wooden houses), house rent, private (non-wooden houses), imputed rent (wooden houses) and imputed rent (non-wooden houses) have been included to reference indices of goods and services classification.

(c) Indices aggregated based on baskets of specific household groups

Given the increasing number of households with heads older than 60, an index based on the expenditure composition for "subgroup index for retired elderly households" has been included. Also, as the ratio of typical households (a worker's family consisted of husband and wife with two children, and the occupied person is only the head of the household) as a proportion of entire households is decreasing, the index based on the expenditure composition of "typical household" has been omitted,

(d) Supplementary indices

The Laspeyres' chain index and the midpoint-year basket index have been calculated only for Japan, while those for the Ku-area of Tokyo have been omitted due to their unstable results.

# (Appendix)

# Index items revised for the 2010 base

Included items (28 items) and omitted items (22 items including 3 items surveyed only in Okinawa Prefecture)

10 major groups	Included items	Omitted items
	Salmon roe	Blended rice
	Ginger	Dried sardines
	Dressing	Sliced vegetables pickled in soy sauce
	Prepared pasta sauce	"Sembei", Japanese wheat crackers <sup>(c)</sup>
Food	"Yakitori", grilled chicken	"Hamadai" <sup>(d)</sup>
	Grilled fish	"Takasago" <sup>(d)</sup>
	"Kimpira"	"Misoshiru", bean-paste soup <sup>(d)</sup>
	Fried chicken	
Furniture & household	Frying pans	Kettles
utensils	Matting	Shelves for microwave oven
	Men's suits (for summer,	Girls' skirts (for winter) <sup>(e)</sup>
	ordinary) <sup>(a)</sup>	
	Men's suits (for winter,	Canvas shoes (for children) <sup>(f)</sup>
	ordinary) <sup>(a)</sup>	
Clothes & footwear	Women's suits (for spring &	"Zori", Japanese sandals
	summer, ordinary) <sup>(a)</sup>	
	Women's suits (for autumn &	
	winter, ordinary) <sup>(a)</sup>	
	Slippers	
Medical care	Disposable diapers (for adults) (b)	
	Fees for vaccination	
	Expressway bus fares	Railway fares (JR) (ordinary fares, for "Shinkansen") <sup>(g)</sup>
Transportation &	Electronic Toll Collection	Express delivery post
communication	system tool	
	Car wash fees	Registered post
		Parcel post
	Electronic dictionaries	Stereo phonograph sets
	Game software	TV set repair charges
	Grooming parlor fees	Albums
Culture & recreation	Horticultural fertilizer	Soccer balls
	Memory cards	Films
	Admission, theater	
	Music download service fees	
Miscellaneous	Facial wash	Repair charges of wrist watches

(a) Only medium quality goods had been surveyed for the 2005 base year, but ordinary quality goods have been included to the 2010 base year.

- (b) Only goods for babies had been surveyed for the 2005 base year, but goods for adults have been included for the 2010 base year.
- (c) Two items of Japanese crackers, i.e. rice flour and wheat flour had been surveyed for the 2005 base year, but only rice flour Japanese crackers have been surveyed for the 2010 base year.
- (d) Items surveyed only in Okinawa Prefecture
- (e) Two types of girls' skirts (for summer and winter) had been surveyed for the 2005 base year, but only one item of girls' skirts has been surveyed for the 2010 base year.
- (f) Two types of canvas shoes (for adults and children) had been surveyed for 2005 base year, but only one item of canvas shoes has been surveyed for the 2010 base year.
- (g) Two items of railway fares (JR) (ordinary fares, excluding "Shinkansen" and for "Shinkansen") had been surveyed for the 2005 base year, but this has been changed to one item of railway fares (JR) (ordinary fares) for the 2010 base year.

10 major groups	Former (before change)	New (after change)	
House rent, private (small wooden houses)			
	House rent, private (medium-sized wooden	<b>T</b>	
	houses)		
	House rent, private (small non-wooden houses)	House rent, private	
	House rent, private (medium-sized non-wooden		
Housing	houses)		
	Imputed rent (small wooden houses)		
	Imputed rent (medium-sized wooden houses)	Imputed rent	
	Imputed rent (small non-wooden houses)		
	Imputed rent (medium-sized non-wooden		
	houses)		
Medical care	Delivery fees in national hospital	Delivery fees in national	
	Delivery fees in public hospital	& public hospital	
	Monthly magazines, boys'	Monthly magazines	
Culture & recreation	Monthly magazines, hobbies & cultures		
	Monthly magazines, living information		
	Monthly magazines, personal computers		
	Monthly magazines, women's		

Integrated items (15 items to 4 items)

III Calculation of the Consumer Price Index

Chapter 1 Calculation of the prices in the observation period  $(P_t)$ 

1. Calculation of the prices in the observation period

(1) Basic formula

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Prices in the observation ( $P_t$ ) period were calculated as the simple arithmetic mean for each month, item and municipality for prices by shops and stores principally obtained from the Retail Price Statistic Survey.

$$\overline{P}_{t,i,j} = \frac{1}{n} \sum_{k=1}^{n} P_{t,i,j,k}$$
(*t*: observation period *i*: item *j*: municipality *k*: store *n*: number of surveyed price)

For fresh food and cut flowers, whose daily price changes are significant, surveys are conducted three times a month (every 10 days in a month) to determine the exact price for the month. These items are hereinafter referred to as 10-day surveyed items. Refer to "IV List of information for items of the 2010-Base Consumer Price Index" for details of these items. The average price per month is calculated by averaging prices for each 10-day period. Prices in the observation period during the current month are calculated as the simple arithmetic mean of the average prices for each 10-day period<sup>5</sup>.

$$\overline{P}_{t,i,j,s} = \frac{1}{n} \sum_{k=1}^{n} P_{t,i,j,s,k}$$
$$\overline{P}_{t,i,j} = \frac{1}{3} \sum_{s=1}^{3} P_{t,i,j,s}$$
(s: season (10-day period in a month))

(2) Calculation of prices in the observation period not depending on the basic formula

(a) Personal computers and cameras

Price indices of "Personal computer (desktop)", "Personal computer (notebook)" and "Cameras" are calculated by the hedonic approach, using scanner data on prices, quantities and other characteristics of all products provided by the POS information. Refer to "Appendix 1 Calculation of the price index for PCs and Cameras by Hedonic approach" for details of the calculation method.

<sup>&</sup>lt;sup>5</sup> When average price of first or last 10-day period cannot be collected, price in observation period in current month is calculated excluding the 10-day period. However, when the average price in the middle 10-day cannot be collected, price in the observation period in current month is treated as lacking, even if the average price of either the first or the last 10-day is collected.

#### (b) Items with complicated fare structures

Some items such as airplane fares, electricity and mobile telephone charges have various fare structures, with prices that vary according to the purchased conditions. To accurately reflect the price fluctuation in the price index, monthly indices for these items are calculated with a special formula (model formula) which is designed by using a typical utilization case of each item as a model. Prices surveyed by the RPS are used to calculate these indices. The results of other statistics are used for ratios to formulate the prices of model cases.

# (c) Carry-forward process for seasonal items, less fresh food during the months when such prices are unavailable

For some items, prices cannot be collected in some months because of out of circulation or very limited supply. In the RPS, prices are collected only in the months when items come on the market.

In months when these items are unavailable, if we calculate an index of an upper level group excluding them, their weights are prorated to other items in the same group. As a result, the yearly average of monthly weights differs from the original yearly weight<sup>6</sup>.

Therefore, for seasonal items such as clothes and heating and cooling appliances, average prices in the previous season are imputed in months when prices are unavailable.

# 2 Substitution of the prices in the observation period

Some items are surveyed only in large cities among those items surveyed in each municipality by the RPS considering the actual situation of the purchase by consumers or of sales in stores. For these items, the prices in the geographically close city are used as substitutes for monthly pieces of municipalities where the survey is not performed<sup>7</sup>.

Also, for some items, which are surveyed not in municipalities but in prefectures or nationwide, the monthly prices are substituted into the municipalities.

As for methods of substitution for prices in the observation period and substitution type for each item, refer to "IV List of information for items of the 2010-Base Consumer Price Index".

 <sup>&</sup>lt;sup>6</sup> Though monthly weights are used for fresh food, it is not appropriate to use for items other than fresh food because of the restriction on available data and complication in practical work.
 <sup>7</sup> It is determined by the scale of population of municipalities for each item whether prices are surveyed in municipalities. However,

<sup>&</sup>lt;sup>7</sup> It is determined by the scale of population of municipalities for each item whether prices are surveyed in municipalities. However, some items may not be circulated in some municipalities because representative stores gather in a close city and consumers often visit the close city to purchase such items. In this case, the prices surveyed in the close city are substituted when necessary.

#### Chapter 2 Quality adjustment during calculation of the prices in the observation period

#### 1. Necessity for quality adjustment of the prices in the observation period

In the RPS, prices of goods and services with the same quality are continuously collected every month, giving the exact specification of the relevant goods and services for each item surveyed. However, in practice, a specification is changed when it is no longer available or commonly found in the market, or the survey district is changed. In such situations, price differences between this month and the previous month may include those caused by factors that are not originated from price movement, such as quality changes.

Therefore, for calculation of the CPI, it is necessary to remove price differences (quality adjustment) caused by such factors to calculate the prices in the observation period.

# 2 Method of quality adjustment

It is necessary to apply the most appropriate method to calculate prices in the observation period, carefully considering factors such as the existence of difference in quality between new and old goods or services and variations of difference in quality and price formations in the market. The main methods of quality adjustment used are as follows. (1) Overlap method

If new and old specifications are sold at the same time under equivalent conditions, the price differences between them can be regarded as reflecting a difference in quality. In this case, price in the observation period is adjusted by the ratio of both prices observed in the same period. This method called "Overlap method".

Adjusting prices by the overlap method is as follows.

《Example 1》				
	Two months be	efore	Last month	This month
Item A	¥120		¥130	-
Item B	-		¥160	¥165
Lin	k coefficient =	Price of Price of	item A in last mo item B in last mo	onth
	=	¥130 ¥160		
	=	0.8125		
Price in the	Two month	before	Last month	This month
observation	¥120	1	¥130	¥134.06
period				$[\$165 \times 0.8125]$

# (2) Adjustment by the ratio of quantity

When it is no difference in quality between new and old specifications except for quantity, and price is nearly proportional to quantity, price in the observation period is adjusted by the ratio of quantity between new and old specifications. Adjusting prices by the ratio of quantity is as follows.

《Example 2》			
	Last month	This month	
Item A	150g ¥135	-	
Item B	-	160g ¥150	
	Ouantity o	f item A	
Link coeffic	$c_{ient} = \underline{Quantity} $	f item B	
	Quantity 0		
	= <u>150g</u>		
	160g		
	= 0.9375		
Price in the	Last month	This month	
observation	150g ¥135	150g ¥146.63	
period		[160g ¥150 x 0.9375]	

(3) Adjustment by the regression equation

Applying the price of the new specification into the regression equation, the price of the new specification is estimated when quality is equivalent to the old one, and price in the observation period is adjusted by the ratio of both prices.

The following example uses single regression equation with quantity as an explanatory variable.

《Example 3》			
	Last mon	th	This month
Item A	1,200g ¥1,8	800	-
Item B	-		1,120g ¥1,760
		(	on the condition that 720g costs $\$1,210$ )
[Estimation by a r	egression m	odel]	
1,760 = 1,120a	+ b		
1,210 = 720a +	b	a = 1.3'	75, b = 220.0
		y = 1.3	75x + 220.0
Therefore, the pr	ice of an ite	m B for 1,20	00g is estimated to be $1.375 \times 1,200 + 220.0$
= 1,870yen.			
Link co	efficient =	Estimated	price of an item B for 1,200g
		Price	of an item B for 1,120g
		¥1 870	
	=	¥1 760	-
		11,700	
	=	1.0625	
Price in the	Last n	nonth	This month
observation	1,200g <sup>2</sup>	¥1,800	1,200g ¥1,870
period	-		$[1,120g \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$

# (4) Option cost method

When equipment which is an option in an old specification is installed as a standard in the new specification, the price increase along with such quality improvement is equal to the purchase cost of the option. However, the cost for standard equipment is considered to be lower than that for an option because of the increase of the production. In addition, consumers lose the opportunity to select or not select the option. Therefore, the price of the quality improvement is estimated by adjusting this part (in general, it is estimated as one half of the option price). This is called "Option cost method".

Adjusting prices by the option cost method is as follows.

《Example 4》		
	Last month	This month
Item A	¥2,400,000	-
(Option)	¥200,000	
Item B (standard)	-	¥2,550,000
Thus, quality improvement	nt by the standard	dization of the option is estimated to be
$$200,000 \times 1/2 = $100,000$	).	
		Price of an item A
Link coefficient =	Price of an	item A + Quality improvement by the
		standardization
	¥2 400	000
=	¥2,400,000	
	≢2,400,000 + ≢2	,00,000 ×1/2
=	0.9600	
Price in the Las	st month	This month
observation ¥2,	,400,000	¥2,448,000
period	[¥2	550.000 × 0.96001

# (5) Class mean imputation

When new and old specifications of an item are unable to compare in the last month, prices are linked by assuming that the price change of the item is equal to the average price change of all the other items classified into the same group. This method is called "Class mean imputation".

This method is used when new and old specifications are unable to be priced at the same period. In general, it is not appropriate to apply this method, but it is exceptionally used for items sold in the market only for limited season, such as clothes.

《Example 5》				
	Same month of the previous year		Last month	This month
Item A	¥1,500	• • • • •	-	-
Item B	-		-	¥1,200
Index of an upper level group*	100.2			99.8
*This is calculated e	xcluding the item in a	question.		
Tinta an fCining a	Price of an item A	in the same	Index of an t Index of an	upper level group in his month upper level group in
Link coefficient =	month of the previo	us year ×	the same m	onth of the previous vear
		Price of an it	em B in this mo	onth
	_ ¥1,500 × —	99.8		
		100.2		
¥1,200				
	= 1.2450			
Price in the	Same month of the previous year	Ι	ast month	This month
observation	¥1,500	••••	-	¥1,494
period				$[\$1,200 \times 1.2450]$

Adjusting prices by the class means imputation is as follows

(6) Direct comparison

When the new specification can be regarded as equivalent to the old specification, the surveyed prices are adopted directly, in which case no special calculation for the link coefficient is needed. However, it is necessary to investigate the qualities of both new and old specifications and judge them to be equivalent.

Calculation of the prices in the base period

(

Prices in the base period ( $P_0$ ) are the simple arithmetic means of monthly price data of the observation period ( $P_t$ ) from January to December of the base year (2010). If some of the monthly prices in the observation period are missing, only the available monthly prices are included in the calculation.

$$P_{0,i,j} = \frac{1}{M_{i,j}} \sum_{t} P_{t,i,j}$$
  
D: base period *M*: number of months where prices exist *t*: month *i*:item *j*: municipality)

The prices of fresh food are calculated as weighted arithmetic means using monthly weights. If some of the monthly prices in the observation period are unavailable, only available monthly prices are included in the calculation.

$$P_{0,i,j} = \frac{\sum_{t} P_{t,i,j} w_{t,i,j}}{\sum_{t} w_{t,i,j}}$$
(w: weight)

# Chapter 4 Calculation of the weight $(W_0)$

1 Scope of the Family Income and Expenditure Survey (FIES) items adopted for the weights In the FIES, living expenditures are categorized as follows.

Disbursements
Expenditures
Consumption expenditures
Food, Housing, Fuel, light and water charges, Furniture and household utensils,
Clothing and footwear, Medical care, Transportation and communication,
Education, Culture and recreation, Other consumption expenditures
(Miscellaneous, Pocket money (of which, detailed uses unknown), Social
expenses, Remittance)
Non-consumption expenditures
Direct taxes, Social insurance premiums, Other non-consumption expenditures
Disbursements other than expenditures(excluding carry-over to next month)
Saving, Insurance premium payments, Purchase of securities, Repayment of loans
for house and land purchases, Repayment of loans for other debts, Repayment of
loans for installment purchases, Repayment of loans for purchases in a lump sum,
Purchase of properties, Others
Carry-over to next month

As the CPI is designed to measure changes in prices of goods and services consumed by household throughout the country, the scope of the FIES items used for the calculation of weights is limited to the household consumption expenditure. The CPI does not cover non-consumption expenditures (such as direct taxes and social insurance premiums) or disbursements other than expenditure (such as security purchases, purchase of houses and land).

Also, the following items of consumption expenditure are excluded from the scope of the CPI because markets do not generally exist for such items, the relationship between payment and counter value is not clear or they involve income transfer to other households.

a) Religious contributions

Religious contributions cannot be specified, because the costs such as donations to religious association and offerings to temples or churches do not have any concrete values and the amounts are arbitrary.

b) Donation

Donations such as general donations and community chest cannot be specified because they have no concrete counter value and the amounts are arbitrary, just as for religious contributions.

#### c) Money gifts

Money gifts such as betrothal money, farewell gifts, consolation payments and gratuity (tips) are income transfer, not a purchase of goods or a counter value of services. They will be re-spent by the household receiving them, and it seems that their spending patterns are approximated by the consumption structure which is the basis of the consumption of weights.

#### d) Other obligation fees

Obligation fees such as fees for neighborhood association, firefighting and street lamps are a kind of public duties. The concept of price is not applied to them.

# e) Remittances

Remittances such as education expenses, house rent and living expenses for students studying away from home are income transfer and not counter values.

#### 2 Calculation of the weights for the basic classification indices

In order to distinguish the municipalities used in CPI and FIES, the municipality used in the RPS for the CPI is referred to as the "CPI municipality" and that used in the FIES is referred to as the "FIES municipality".

(1) Calculation of the weights by FIES municipality

Via the following procedure, the weights for the FIES municipality are calculated before calculating the weights by CPI municipality<sup>8</sup>.

a) Allocation of expenditure by item in the FIES to the CPI items

The weights allocated to each item is calculated on the basis of the 2010 yearly average of monthly expenditures by item per household, derived from the FIES (two-or-more-person households).

However, the coverage of items which the FIES uses for the classification (hereinafter referred to as FIES items) and the CPI items differs partially. Moreover, items called "Others" in the FIES are not included in the CPI items. Thus, items in FIES and the CPI do not correspond 1 to 1. Therefore, expenditures by item in the FIES are allocated to the CPI items as follows.

There are two types of rate of allocation, for nationwide and for prefectures or municipalities.

<sup>&</sup>lt;sup>8</sup> The stratum used for extracting the CPI municipality coincides with the stratum used for extracting the FIES municipality.

1) When there is 1 to 1 correspondence between the FIES item and the CPI item, the correspondence is maintained.

< FIES >	< CPI >
Tuna fish	 Tuna fish
Horse mackerel	 Horse mackerel
Sardines	 Sardines

2) When there are no CPI items corresponding to the FIES items, items are allocated as follows.

• When there is a CPI item that represents the FIES items, weights of those items are combined to the CPI item.

< FIES > < CPI > Short-necked clams Short-necked clams

• When a CPI item which represents FIES items cannot be specified, weights are allocated proportionally to each item in the index group in question<sup>9</sup>.

< FIES > < CPI > "Sashimi", mixed set — Allocated proportionally to items included in the group "Fresh fish and seafood" (excluding Short-necked clams, Oysters and Scallops)

• When several CPI items correspond to one FIES item, the rates of allocation are determined by expenditure ratios which are obtained from other statistics such as special tabulation of the FIES and the National Survey of Family Income and Expenditure (NSFIE).

< FIES > < CPI > Fresh milk Fresh milk (delivered) Fresh milk (sold in stores)

3) Weights of items called "Others" in the FIES are allocated as follows.

• When several CPI items are included in the item called "Others" in the FIES, the rates of allocation are determined by expenditure ratios, which are obtained from other statistics such as special tabulation of the FIES and the NSFIE.

<sup>&</sup>lt;sup>9</sup> Weights are allocated in proportion to expenditures already assigned to the CPI items included in the group in question.

• When there are no CPI items included in the item called "Others" in the FIES, weights are allocated proportionally to each item in the index group in question.

< FIES > < CPI > Other noodles — Allocated to proportionally items included in the group "Noodles"

4) "Pocket money" and "social expenses" are allocated to CPI items by the rates of allocation on the basis of "private living expenditure" in the NSFIE.

"Package tours (domestic)" are divided into hotel charges, transportation fares, costs of meals and others using data from other statistics and allocated to the corresponding group and item.

b) Inclusion of weights for the imputed rent

Weights for the imputed rent by municipality of the FIES, which are calculated based on the "Imputed rent" in the NSFIE, are included. As for details of the calculation, refer to "Appendix 3 Calculation of the weights for the imputed rent."

(2) Calculation of the weights by municipality in the CPI

Using the weights by the FIES municipality obtained from the calculation above (1), weights by the CPI municipality are calculated as follows.

a) Correspondence of the FIES municipalities to the CPI municipalities

Weights for cities with prefectural governments, Kawasaki-shi, Hamamatsu-shi, Sakai-shi and Kitakyushu-shi are corresponded directly. As for other cities, the average figures of "the district and the city group", to which the municipality in question belongs are corresponded.

b) Correction depending on the actual situation of the CPI municipalities

Weights for several items, such as fees for water & sewerage charges and kindergarten fees, are corrected and redistributed, depending on the actual situation of the municipality.

c) Adjustment depending on the scale of the stratum

Weights for each municipality, as calculated above, cannot be used for the official indices for Japan because the scale of the stratum where each municipality is sampled is not reflected. Therefore, final weights by the CPI municipalities are calculated by multiplying coefficients<sup>10</sup> that are proportional to the scale of each stratum (the number of two-or-more-person households).

#### (3) Calculation of monthly weights for fresh food

Since monthly purchase quantities greatly fluctuate by item, the monthly weights of fresh food are calculated with the following procedure.

a) Calculation of purchase quantity ratio

<sup>&</sup>lt;sup>10</sup> In the FIES, the number of household for tabulation after the adjustment for each stratum (surveyed municipalities) is proportional to the scale of the stratum (the number of target households). Therefore, the coefficient used is the ratio of the number of households for tabulation after the adjustment to the total households of Japan (per 10,000).

Using purchase quantities obtained from the FIES, the ratio of purchase quantity of each month to the yearly average of monthly purchase quantity is calculated by item.

$$q_{m,i} = \frac{q_{(2009,m),i} + q_{(2010,m),i}}{2}$$

$$r_{m,i} = \frac{q_{m,i}}{\frac{1}{12}\sum_{m=1}^{12} q_{m,i}}$$
(*r*: ratio of purchase quantity of each month to average monthly quantity  
*q*: purchase quantity *i*: item *m*: month)

As for quantities, average of two year (2009 and 2010) is used.

b) Calculation of monthly weights

Multiplying the monthly purchase quantity ratio obtained from the above a) by the annual average weight by item, the monthly weight by item is calculated.

$$w_{m,i} = w_i \times r_{m,i}$$
  
( $w_{m,i}$ : monthly weights before group adjustment  $w_i$ : annual average item weight)

# c) Adjustment to group weights

Although group weights for "Fresh fish & seafood", "Fresh vegetables" and "Fresh fruit" are fixed all year round, the sum of monthly weights by items obtained from the above b) does not coincide with the group weights calculated by the annual average. To avoid this inconsistency, monthly adjustment ratios are calculated and multiplied by item weights for the corresponding month, whereupon final monthly weights are calculated.

$$w'_{m,i} = w_{m,i} \times \frac{W}{\sum_{i=1}^{n} w_{m,i}}$$
(*w*'<sub>*m*,*i*</sub>: monthly weights *W*: annual average weight for upper level group)

3 Calculation of the weights for the goods and services classification

Weights for the goods and services classification are calculated by adding weights for the basic classification for each item by the goods and services classification.

4 Calculation of the weights for index based on baskets of specific household groups

Weights for Japan are calculated by the following categories.

- Total households
- Yearly Income Quintile Groups of Workers' Households

- Retired Elderly Households
- By Age Group of Household Head
- By Occupation of Household Head
- By Type of Tenure of Dwelling of Household Head

To calculate weights, the 2010 yearly average of monthly expenditures by item per household by each category in the FIES are used and the target households are those with two-persons-or-more, except for the total household weights. The allocation method from FIES items to CPI items and rates of allocation are the same as weights for Japan for the basic classification.

# Chapter 5 Method of index calculation and the index series

# 1 Index formula

The index is calculated as the weighted arithmetic mean with a fixed basket in the base period preceding the observation period (Laspeyres formula).

$$I_{t} = \frac{\sum_{i=1}^{i} \sum_{j=1}^{i} p_{t,i,j} q_{0,i,j}}{\sum_{i=1}^{i} \sum_{j=1}^{i} p_{0,i,j} q_{0,i,j}} \times 100 = \frac{\sum_{i=1}^{i} \sum_{j=1}^{i} \frac{p_{t,i,j}}{p_{0,i,j}} w_{0,i,j}}{\sum_{i=1}^{i} \sum_{j=1}^{i} w_{0,i,j}} \times 100$$
  
*I*: index *p*: price *q*: quantity *w*: weight (= *pq*)  
*i*: item *j*: municipalities 0: base period *t*: observation period

2 Process of the index calculation

The process of index calculation is as follows. Firstly, indices of items for municipality are calculated, followed by indices of items for Japan and for districts and city groups. Finally, indices for upper level groups and All items indices are calculated for each area.

During the process of the calculation of indices, they are not rounded. In the statistical tables, figures are rounded off to one decimal place.



(1) Calculation of indices of items for municipalities

Indices of items are calculated by dividing the price for each municipality in the observation

period by the price in the base period.

#### (2) Calculation of indices of items for districts, city groups and Japan

First, indices of item for each municipality are calculated. Then, they are averaged with the respective weights for each municipality to obtain the indices of item for districts, city groups and Japan.

#### (3) Calculation for group index and All items index

Indices of items for Japan, districts, city groups and municipalities are calculated and then averaged with weights by item for each municipality to obtain the group index. Subsequently, the indices are averaged with weights by group to obtain the All items index.

When calculating the group indices for fresh food, the monthly weights are used for the weights of items.

3 Process for the case when the prices in the observation period are not available

When prices of a certain item in a surveyed municipality unavailable such as temporary shortage of the item, the index and weight of the item are excluded from the calculation (actually, it is impossible to calculate as the price is unavailable).

In the aggregation from items to a group, as a consequence, the group index calculated from other items in the same group is substituted for the price movement of the index for the item whose price is missing<sup>11</sup>.

In the calculation of indices from lower level groups to upper level group, group weights including the weight of the item whose price is missing are used to avoid the fluctuation of each group weight.

4 Calculation of average indices for calendar year, fiscal year and so on

(1) Average indices for calendar year

Average indices for calendar year are calculated as the simple arithmetic means of monthly indices (published figures after rounding of fractions) from January to December for each item and group. As for items of fresh food, indices are calculated as weighted arithmetic means by monthly weights. In the statistical tables, figures are rounded off to one decimal place.

(2) Average indices for fiscal year

Average indices for fiscal year are calculated by using monthly indices from April to March the following year, using a method similar to that of the average indices for calendar year.

<sup>&</sup>lt;sup>11</sup> Indices for Japan, districts and city groups are calculated after the calculation of indices of items. As a result, the indices of items of the region excluding the municipality in question is substituted for the price fluctuations of the item whose price is missing in the municipality.

#### (3) Quarterly and half-yearly average indices

Quarterly average indices are calculated for periods from January to March, April to June, July to September and October to December, while those of half-yearly average indices are from January to June and July to December and calculated in the same manner as yearly average indices.

5 Calculation of the rate of change

(1) Change from the previous month

Change from the previous month is calculated by item and group by the following equation:

Change from the previous month (%) = 
$$\frac{I_{\text{this month}} - I_{\text{the previous month}}}{I_{\text{the previous month}}} \times 100$$
 (*I*: index)

# (2) Change over the year

Change over the year is calculated by item and group, by the following equation:

Change from the same	$I_{\text{this month}} - I_{\text{same month of the previous year}}$ 100
month of the previous	$= \frac{I_{\text{same month of the previous year}}}{I_{\text{same month of the previous year}}} \times 100$
year (%)	( <i>I</i> : index)

Changes from the previous quarter, the previous half-year and over the year are calculated in the same way.

The rate of change is calculated with an index before rounding of fractions. In the statistical tables, figures are rounded off to one decimal place.

6 Calculation of the contribution to the total change and the rate of contribution

(1) Calculation of the contribution to the total change

Contribution to the total change represents the number of percentage points by which the change of an index for an item or group contributes to the change of the All items index. The sum of contribution to total change is equal to the rate of change of the All items index<sup>12</sup>. The calculation formula is as follows:

 $<sup>^{\</sup>rm 12}$  It may not be equal in the statistical tables due to the rounding of fractions.

Contribution of an	$(I_{\text{transformation}} + I_{\text{transformation}}) \times \frac{W_{\text{item A}}}{W_{\text{item A}}}$	
item A to the total	$=\frac{W^{(1)}}{W^{(2)}} \times 100$	
change	I All itmes in the previous period (I: index w: weight	t)

However, the contribution to total change over the year of items categorized as fresh food is calculated using the following formula:



The contribution to total change is calculated with an index before the rounding of fractions. In the statistical tables, figures are rounded off to two decimal places.

# (2) Calculation of the rate of contribution

The rate of contribution shows the rate of contribution of each item to the All items index in %.

Rate of contribution of an item $A(\%) =$	Contribution of an item A to the total change	100
	Rate of change of the All items index (%)	× 100

The sum of the rate of contribution of all items is 100%<sup>13</sup>. The rate of contribution is calculated using the figures calculated above (1) (before the rounding of fractions). In the statistical tables, figures are rounded off to one decimal places.

7 Index series

(1) Basic classification indices

Indices by basic classification, classified by the use and function of goods and services purchased by households and based on the classification by consumption expenditure in the FIES are calculated.

The following indices are calculated as the reference to basic classification indices. They are calculated as follows.

a) Fresh food

<sup>&</sup>lt;sup>13</sup> It may not be equal in the statistical tables due to the rounding of fractions.

"Fresh food" is calculated by averaging group indices of "Fresh fish & seafood", "Fresh vegetables" and "Fresh fruits" with each group weight.

b) All items, less fresh food

All items, less fresh food = 
$$\frac{(I_{\text{All items}} \times w_{\text{All items}}) - (I_{\text{fresh food}} \times w_{\text{fresh food}})}{w_{\text{All items}} - w_{\text{fresh food}}} \times 100$$
(*I*: index *w*: weight)

The index of "Food, less fresh food" is calculated by the same method.

c) All items, less imputed rent

All items, less imputed rent 
$$= \frac{(I_{\text{All items}} \times w_{\text{All items}}) - (I_{\text{fresh food}} \times w_{\text{fresh food}})}{w_{\text{All items}} - w_{\text{fresh food}}} \times 100$$
(*I*: index *w*: weight)

"Housing, less imputed rent" and "Rent, less imputed rent" are calculated by the same method.

d) All items, less imputed rent and fresh food



e) Energy

The index of "Energy" is calculated by averaging indices of five items, "Electricity", "Gas, manufactured & piped", "Liquefied propane", "Kerosene" and "Gasoline" with each weight.

f) All items, less food (less alcoholic beverages) and energy

All items, less food (less alcoholic beverages) and energy  

$$= \frac{(I_{\text{general}} \times w_{\text{general}}) - [(I_{\text{food}} \times w_{\text{food}}) - (I_{\text{alcoholic beverages}} \times w_{\text{alcoholic beverages}})] - (I_{\text{energy}} \times w_{\text{energy}})}{w_{\text{general}} - (w_{\text{food}} - w_{\text{alcoholic beverages}}) - w_{\text{energy}}}} \times 100$$
(*I*: index *w*: weight)

g) Expenses for education

The index of expense for education is calculated by averaging the item or group indices categorized into education with each weighting.

# h) Expenses for culture & recreation

The index of expenses for culture & recreation is calculated by averaging the item or group indices categorized into culture & recreation with each weight.

#### i) Expenses for information & communication

The index of expenses for information & communication is calculated by averaging indices categorized into information & communication with each weight.

The basic classification indecies are calculated, as shown in the following table, for a total of 71 series including Japan, Ku-area of Tokyo and city group, Districts, Major Metropolitan, Cities with Prefectural Governments (excluding the Ku-area of Tokyo) and government ordinance-designated cities (Kawasaki-shi, Hamamatsu-shi, Sakai-shi and Kitakyushu-shi).

Series	month	Quarterly/ half yearly (only in Japan and the Ku-area of Tokyo)	Calendar and fiscal year
All items/ 10 major group			
Subgroup classification		-	
Minor group classification (only in Japan and the Ku-area of Tokyo)		-	
item (only in Japan and the Ku-area of Tokyo)		-	
Analytical series			

#### (2) Goods and services group indices

After classifying items depending on whether they are goods or services, Goods and services group indices, segmentized by using industrial classification as a reference, are calculated.

Goods and services group indices are calculated by averaging the price indices of items in a group classified by goods and services with weightings for each item. Indices of item, weights and formulas used for calculating indices are the same as those for the basic classification.

As for the reference to goods and service group indices, indices are calculated by averaging indices of items and groups classified in each category with each weight.

Index by monthly, quarterly average, half yearly average, calendar yearly average and fiscal yearly average are calculated for Japan and Ku-area of Tokyo.

#### (3) Indices aggregated based on baskets of specific household groups

The CPI measures the price movement of items purchased by households having a normal consumption pattern, but in practical terms, the consumption pattern varies depending on the

conditions of household head such as income, age and occupation, which are closely related to the number of family members and consumption activities. These matters may also impact on the price fluctuation.

Therefore, the following indices aggregated based on baskets of specific household groups are calculated.

Indices of item are the same as those for the basic classification, while weights are those calculated for each baskets of specific household groups<sup>14</sup>. Therefore, differences in indices calculated based on baskets of specific household groups result from the difference of item weights by specific household groups, i.e. the difference in the pattern of living expenditure.

monthly and annually	Quintile Group <sup>15</sup> of Worker's Households
ouseholds monthly and annually	c) Subgroup Index for Retired Elderly H
of Household Head annually <sup>17</sup>	d) 10 Major Group Index by Age Group <sup>16</sup> c
of Household Headannually	e) 10 Major Group Index by Occupation <sup>18</sup>
e of Dwelling <sup>19</sup> of Household Headannually	f) 10 Major Group Index by Type of Tenure

(4) Indices by the characteristics of items

a) Indices by goods groups classified according to elasticity to consumption expenditure

Categorizing each item by expenditure elasticity obtained from the FIES, the indices by goods groups classified according to elasticity of consumption expenditure is calculated.

<< Expenditure elasticity >>

Less than 1 ..... Item classified as basic expenditure

More than 1..... Item classified as selective expenditure

b) Indices of annual purchase frequency classes

Items are classified based on the annual purchase frequency per household obtained from the FIES, and indices are calculated by the class of purchase frequency.

<< Classes of purchase frequency >>

Items seldom purchased.....less than 0.5 times a year Items purchased about once a year .....0.5 times and over, but less than 1.5 times a year

<sup>&</sup>lt;sup>14</sup> As for fresh food, the monthly weights are calculated using quantity ratios to the yearly average, which are obtained in the calculation of indices for the basic classification.

<sup>&</sup>lt;sup>15</sup> Quintile group: first group ( $\sim$  ¥4.3 million), second group (¥4.3 ~ 5.63 million), third group (¥5.63 ~ 7.07 million), fourth group (¥7.07 ~ 919 million) and fifth group (¥9.19 million ~)

 $<sup>^{16}</sup>$  Age group: less than 29, 30 ~ 39, 40 ~ 49, 50 ~ 59, 60 ~ 69 and 70 and older.

<sup>&</sup>lt;sup>17</sup> The annual indexes for d, e and f are calculated using annual index by item.

<sup>&</sup>lt;sup>18</sup> Occupation: worker's household (workers, private company staff, civil servant), household other than workers (merchant and craftsman, self-employed individuals, agricultural and forestry workers, corporate managers, freelance professionals and jobless)
<sup>19</sup> Type of tenure: own housing, private rent housing, public rent housing and company's house

The indices of a) and b) are calculated as shown in the following table.

Series	Monthly	Yearly
All items, less imputed rent		

# (5) Supplementary indices

For the calculation of the CPI, Laspeyres formula is applied and the base period and weights have been fixed for 5 years, i.e. the CPI measure changes of the cost of purchasing goods and services in a fixed "consumption pattern".

However, the consumption pattern of households changes due to aging, low birth rate, taste such as health consciousness, and emergence of new diseases. To correspond to such changes in consumption pattern and to update weights more frequently, the following two indices are compiled as supplementary indices.

# a) CPI by the Laspeyres chain index

An index is calculated at a point in time based on the immediately previous point in time (known as the link index), whereupon an index is calculated by multiplying the neighboring link indices between two time points in series (known as the chain index).

Since the chain index is calculated by linking indices calculated by changing the base period of prices and weights, it can respond to changes of consumption pattern more rapidly than the Laspeyres index; the base period of which is revised every 5 years (however, a phenomenon called "drift" may occur when price increases and decreases are repeated). The index formulas are the following 1) and 2). The weight is annually updated by using the annual results of FIES (households with two and more family members) in the previous year. The chain index is calculated with the method used in December of the previous year. The Laspeyres formula is used for link indices. Monthly and annual indices are calculated for Japan, but the monthly index is calculated only for the series less fresh food.

#### 1) Monthly index

The monthly index is calculated for the subgroup (including the reference) excluding fresh food. The price ratio by item used for the Laspeyres link index is calculated by dividing the price index by item during the observation period by the price index by item in December the previous year.



#### 2) Annual index

The annual index is calculated for the subgroup including fresh food (including the reference). The price ratio by item used for the Laspeyres link index is calculated by dividing the annual price index by item (averaging the monthly price indices by item by the number of months where prices exist) during the observation period by the annual price index by item of the previous year.

The annual indices of items categorized into fresh food are calculated by averaging with the monthly weighting.



The monthly index is published in time with the publication of confirmed data for the month in question, but for some time at the beginning of the year, a temporary index is calculated by using the weighting of two years ago due to incompletion of the previous year's weighting. When the results of FIES are published, a confirmed index is calculated with the previous year's weighting and a revised index extending back to January is published. b) CPI by the midpoint-year basket method

The CPI by the midpoint-year basket method calculates indices based on the basket in the middle year between the base year and the observation year. For details, refer to "Appendix 4 Calculation of the CPI by midpoint-year basket method".

Although this method uses and older reference year than that of the Laspeyres chain index method, under the normal situation when the consumption pattern changes smoothly, it is possible that this method corresponds to the changes of the consumption pattern more appropriately.

An annual index for the subgroup including fresh food (including the reference) is calculated for Japan.

# Chapter 6 Linking of new and old indices

#### 1. Method of linking new and old indices

To enable time series comparison for every index series, new and old indices are linked. The link of old base indices to 2010-base indices is as follows.

#### (1) Linking of new and old indices

Old and new indices are linked in terms of district, All items index, group and item by dividing indices whose base year is 100 by yearly average indices in the next base year. Therefore, for indices having their base years before 2010 as 100, this procedure must be repeated after every revision. In these cases, rounding is performed only at the final stage, where the 2010-base is 100, because rounding errors would accumulate if rounding was performed in every link.

In tabulation, link coefficients, which are calculated by multiplying all reciprocals of yearly averaged indices used for the link to 2010-base index, are calculated and link is done by dividing old-based indices by these coefficients.

Example: The case when 1995-base indices are linked to 2010-base indices.



Therefore, the link coefficients are obtained by multiplying all reciprocals of old-base yearly average index of the new base year.

Link coefficient =	2000 average index (1995-base)		2005 average index		2010 average index		
			(2000-base)		(2005-base)		
	100	X	100	X	100		

Using this link coefficient, the 1995-base index is linked to the 2010-base index.

2010-base linked index = 1995-base index / link coefficient

# (2) Link for items changed in the 2010-base

The link principally applies for 2010-base groups and items. When codes of items (groups) do not correspond to those of the 2005-base among those groups and items, ensure they are made to

correspond as shown in the following table:

20	10-base groups and items	20	005-base groups and items
3000	House rent, private	0047	House rent, private
3030	Imputed rent	0050	Imputed rent
7446	Cellular phones	7443	Cellular phones
6210	Delivery fees in national and	6212	Delivery fees in public hospital
	public hospital		

# (3) Link for districts changed in the 2010-base

The link principally applies for 2010-base districts. When codes of districts do not correspond to those of the 2005-base among those groups and items, ensure they are made to correspond as shown in the following table:

20	)10-base codes for districts		2005-base codes for districts
00018	Kinki Major Metropolitan Area	00018	Keihanshin Major Metropolitan Area
15100	Niigata-shi	15201	Niigata-shi
22100	Shizuoka-shi	22201	Shizuoka-shi
33100	Okayama-shi	33201	Okayama-shi

2 Range for calculating linked indices

The range of linked indices is as follows.

# (1) Basic classification indices

The following indices are calculated for Japan, the Ku-area of Tokyo, city groups, districts, major metropolitan areas, cities with prefectural governments (excluding the Ku-area of Tokyo) and the government ordinance-designated cities Kawasaki-shi and Kitakyushu-shi).

	Japan <sup>20</sup> and K Tokyo	Ku-area of o	City groups <sup>21</sup> , districts <sup>22</sup> , major metropolitan areas, cities with prefectural governments <sup>23</sup> and the government ordinance-designated cities <sup>2</sup>		
	Monthly	Yearly/ fiscal yearly average	Monthly	Yearly/ fiscal yearly average	
All items All items less fresh food	since January 1970	since 1970	since January 1970	since 1970	
All items, less food (less alcoholic beverages) and energy	since January 1970	since 1970	since January 2005	since 2005	
All items, less imputed rent	since August 1946	since 1947	since January 1970	since 1970	
10 major groups <sup>24</sup>	since January 1970	since 1970	since January 1970	since 1970	
Subgroups (including reference indices	since January 1970	since 1970	since January 1970	since 1970	
Minor groups	since January 1970	since 1970			
By item	since January 1970 since 1970				

# (2) Goods and services group indices

Yearly average and monthly indices (since 1970) are calculated for Japan and the Ku-area of Tokyo. However, recombined links are not done for the reference indices of "House rent, private (wooden houses)", "House rent, private (non-wooden houses)", "Imputed rent (wooden houses)" and "Imputed rent (non-wooden houses)".

# (3) Other indices

#### a) Prewar base index

The yearly averages of prewar base indices<sup>25</sup> on five major groups ("All items", "All items, less imputed rent", "Food", "Housing", "Housing, less imputed rent", "Fuel & light", "Clothes" and "Miscellaneous") is calculated for the Ku-area of Tokyo from 2010.

To calculate the prewar base index, firstly, the 5 major group indices are calculated based on the current price index by item, whereupon the index is multiplied by the conversion rate for the

<sup>&</sup>lt;sup>20</sup> The index of Japan before 1962 applies for all cities (current cities with population of 50,000 or more).

<sup>&</sup>lt;sup>21</sup> Changes and links for "Small cities B and towns and villages", which are 2010-base classification, are not made.

<sup>&</sup>lt;sup>22</sup> From 1975-base, Okinawa district and Naha-shi are included but the Ku-area of Tokyo is excluded.

<sup>&</sup>lt;sup>23</sup> The linked index for Hamamatsu-shi, which became a designated city under article 252-19 of the Local Autonomy Act in the <sup>24</sup> Recombination was performed from five major groups to 10 major groups when the 1980-base index was calculated
 <sup>25</sup> The prewar base index is based on the years from 1934 to 1936.

#### prewar base.

#### b) 2005-base conversion subgroup index

To facilitate the use of the data (e.g. relation to other 2005-base economic indices), 2005-base converted subgroup indices, which are calculated by multiplying 2010 average indices (2005-base) by 2010-base indices and divided by 100, are calculated from January 2012 to July 2016. These indices are calculated for Japan and the Ku-area of Tokyo.

#### 3 Notice for the use of linked indices

#### (1) Relation between upper level and lower level groups

Since indices are linked individually for districts, each series of All items index, groups and items, the linked index for the upper level group may not correspond to that calculated from lower level groups, even in the same year or month<sup>26</sup>.

#### (2) Treatment of the rate of change

The rate of change from the previous month, the same month of the previous year and the previous fiscal year are published figures in each base and are not recalculated by linked indices<sup>27</sup>. For the base year, the change from the previous year, previous fiscal year, previous month of January and the same month of the previous year from January to December are figures calculated from indices in the old base. Therefore, the rate of change does not always match figures calculated by linked indices.

Indices and change from the previous month (excluding January) in the base year, indices and change from the previous month and the same month of the previous year in the following year are revised to figures in the new base after the switch to the new base.

<sup>&</sup>lt;sup>26</sup> Even though indices of lower level groups or items are averaged by weight, the index sometimes does not match that of the corresponding upper level group.

<sup>&</sup>lt;sup>27</sup> If a recombination of classification is performed, the figures are recalculated.

#### Chapter 7 Seasonal Adjustment

1 Calculation method of seasonally adjusted indices

The seasonally adjusted index is calculated to determine the basic trend of price fluctuation. A program called X -12- ARIMA, developed by the U.S. Census Bureau, is used for the seasonal adjustment. The ARIMA model's specification file (at the time of the 2010-base revision) is shown below.

series{start=2005.01
span=(2005.1,2010.12)
period=12
decimals=0}
transform{function=log}
regression{ }
x11{sigmalim=(2 3)
seasonalma=X11default
appendfcst=yes
save=(d10 d11)}
arima{ model=(0 1 1)(0 1 1)}
estimate{ }

# 2 Data used to calculate seasonally adjusted indices

The indices after January 2005, which are linked to the 2010 average index by series, are used to calculate seasonally adjusted indices.

2010-base linked index (Original series for Seasonal adjustment) = 2005-base index × 2010-base 2010 average index (100) 2005-base 2010 average index

3 Recalculation of seasonally adjusted indices

The seasonal adjustment of time sequential data released every month are calculated by dividing the monthly original series in the current year by a seasonal factor from January to December of the current year (estimated seasonal index), obtained from data from January of the beginning year of 2005 to December of the previous year. After that, when the data in this year are available, all seasonally adjusted indices including these new data are recalculated. When data for a new year are finalized, all past seasonally adjusted indices are recalculated including these new data.

# 4 Available series of seasonally adjusted indices

The 8 seasonally adjusted series shown below are calculated for Japan and Ku-area of Tokyo.

- < Basic index >
- All items
- All items, less fresh food
- All items, less imputed rent
- All items, less imputed rent & fresh food
- All items, less food (less alcoholic beverages) and energy
- < Goods and services group index >
- Goods
- Semi-durable goods
- Goods, less fresh food

# [Reference] Method of seasonal adjustment

There are two methods for seasonal adjustment. One is the method which adjusts indices by each group as All items, 10 major group and subgroups (individual method), and the other is the method which calculates seasonally adjusted indices by item, and upper level seasonally adjusted indices by averaging indices by item by each weight (implicit method).

Some CPI items such as school fees which changes every April, show stepwise movement. We cannot apply the seasonal adjustment model to these items. Therefore, individual method is applied to group indices (e.g. All items) as a seasonal adjusted method.

# Appendix 1 Calculation of the price index for PCs and cameras by Hedonic approach

For three items, "Personal computers (desktop)", "Personal computers (notebook)" and "Cameras", it is difficult to survey products with the same quality continuously by our traditional method, because of the high rate of technological innovation and the quite short market production cycles. Therefore, for these three items, we calculate the price indices of items by using scanner data on prices, quantities and the characteristics obtained from the POS information collected from major electric appliance stores.

(1) For each of "Personal computers (desktop)", "Personal computers (notebook)" and "Cameras", a semi-log regression model is formulated with an explained variable of the average sales price of each model and with an explanatory variable<sup>28</sup> of the characteristics of each item such as the hard-disk volume, the amount of memory installed or the zoom ratio of the lens and sales period.

Multiple linear regression model for two consecutive months 
$$(t - 1, t)$$
  
 $\ln p_T = \alpha_t + \beta_t \delta_{T,t} + \sum_{k=t,k} x_k$   
 $p_T$ : sales price  $T$ : point of spot  $t - 1$ ,  $t = k$ : characteristics used for the explanatory  
variable  
 $\alpha_t$ ,  $\beta_t$ ,  $\gamma_{t,k}$ : partial regression coefficient  $x_k$ : characteristic volume  
 $\delta_{T,t}$ : dummy variables for sales period  $-\begin{cases} 0 \text{ when } T = t - 1 \\ 1 \text{ when } T = t \end{cases}$ 

(2) For all models sold<sup>29</sup> this month (t) and the previous month (t-1), a regression calculation is carried out with the regression model mentioned above (1), using the total number of each sold model as a weight to determine the price estimation formula of each month.

(Previous month) 
$$\ln \hat{p}_{t-1} = \hat{\alpha}_t + \sum_k \hat{r}_{t,k} x_k$$
  
(This month)  $\ln \hat{p}_t = \hat{\alpha}_t + \hat{\beta}_t + \sum_k \hat{r}_{t,k} x_k$   
(hat "^" means estimated value)

(3) A link index based on the previous month is calculated with the above mentioned price estimation formula obtained in (2).

<sup>&</sup>lt;sup>28</sup> The explanatory variables are revised every half year.

<sup>&</sup>lt;sup>29</sup> Including models sold until the last month and from this month.

$$I_{t}^{(L)} = \frac{\hat{p}_{t}}{\hat{p}_{t-1}}$$
$$= \frac{\exp\left(\hat{\alpha}_{t} + \hat{\beta}_{t} + \sum_{k}\hat{\gamma}_{t,k}x_{k}\right)}{\exp\left(\hat{\alpha}_{t} + \sum_{k}\hat{\gamma}_{t,k}x_{k}\right)}$$
$$= \exp\left(\hat{\beta}_{t}\right)$$

(4) The chain index of this month (t) is calculated by multiplying the link index calculated in the above mentioned (3) by the index of the previous month (t-1), (2010 = 100).

 $I_{t}^{(C)} = I_{t-1}^{(C)} \times I_{t}^{(L)}$ 

Appendix 2 Calculation method of model items

Group	No.	Items	Area	Price used	Group	No.	Items	Area	Price used						
	3000	House rent, private	By municipality	Day being surveyed		7070	70 Airplane fares Unifor within Japan		Everyday						
Housing	3016	House rent, public	By municipality	Day being surveyed	, , , , ,	7363	National expressway tolls	Uniform within Japan	Day being surveyed						
	3017	House rent, Urban Renaissance Agency & public corporation	By municipality	Day being surveyed		7364	City expressway tolls	Excluding Hokkaido and Okinawa	Day being surveyed						
	3030	Imputed rent	By municipality	Day being surveyed		7105	Automobile (less than 660cc)	Uniform within Japan	Day being surveyed						
	3180	Fire insurance premium	By municipality	Day being surveyed		7106	(more than 660cc, but less than 1,500cc)	Uniform within Japan	Day being surveyed						
	3500	Electricity	By municipality	Day being surveyed	Transportation & communication (continued)	, ,	,		,	,	,	7107	(more than 1,500cc, but less than 2,000cc)	Uniform within Japan	Day being surveyed
	3600	Gas, manufactured & piped	By municipality	Day being surveyed			7110	(less than 2,000cc (imported))	Uniform within Japan	Day being surveyed					
Fuel, light & water charges	3612	Liquefied propane	By municipality	Day being surveyed		7113	(more than 2,000cc)	Uniform within Japan	Day being surveyed						
	3810	Water charges	By municipality	Day being surveyed		7115	(more than 2,000cc (imported))	Uniform within Japan	Day being surveyed						
	4610	Sewerage charges	By municipality	Day being surveyed		7344	7344 Charges for rental car	Uniform within Japan	Day being surveyed						
Furniture & housekeeping	4510	Charges for treatment of human waste	By municipality	Day being surveyed				7370	Automotive insurance premium (compulsion)	Excluding Okinawa, Okinawa and islands of Okinawa	Day being surveyed				
utensils	4521	Recycle fees	Uniform within Japan	Day being surveyed			7390	Automotive insurance premium (option)	Uniform within Japan	Day being surveyed					
	6090	Supplements	Uniform within Japan	Day being surveyed			7410	Telephone charges	By municipality	Day being surveyed					
Medical care	6200	Medical treatment	Uniform within Japan	Day being surveyed		7430	Mobile telephone charges	Uniform within Japan	Day being surveyed						
	6210	Delivery fees in national hospital	Uniform within prefectures	Day being surveyed		7446	Cellular phones	Uniform within prefectures	Day being surveyed						

[List of subject items (74 items)]

Group	No.	Items	Area	Price used	Group	No.	Items	Area	Price used
	7527	Railway fares (JR) (ordinary fares)	Uniform within prefectures	Day being surveyed		8010	Junior high school fees, private	By municipality	Day being surveyed
	7528	(special fares, excluding "Sinkansen")	Excluding Okinawa	Day being surveyed		8020	High school fees, public	By municipality	Day being surveyed
	7530	(special fares, for Shinkansen)	Excluding Hokkaido and Okinawa	Day being surveyed	:	8030	High school fees, private	By municipality	Day being surveyed
	7029	(student's season tickets)	Uniform within prefectures	Day being surveyed		8040	College & university fees, national	Uniform within prefectures	Day being surveyed
	7030	(commuter's season tickets)	Uniform within prefectures	Day being surveyed		8060	College & university fees, private	Uniform within prefectures	Day being surveyed
Transportation & communication	7008	Railway fares (excluding JR) (ordinary fares)	Uniform within prefectures	Day being surveyed	Education	8070	Junior college fee, private	Uniform within prefectures	Day being surveyed
	7009	(student's season tickets)	Uniform within prefectures	Day being surveyed		8080	Kindergarten fees, public	By municipality	Day being surveyed
	7010	(commuter's season tickets)	Uniform within prefectures	Day being surveyed		8090	Kindergarten fees, private	By municipality	Day being surveyed
	7050	Fixed route bus fares	By municipality	Day being surveyed		8077	Vocational school fees	Uniform within prefectures	Day being surveyed
	7057	Expressway bus fares	Uniform within prefectures	Day being surveyed		8110	School text book	Uniform within Japan	Day being surveyed
	7060	Taxi fares	By municipality	Day being surveyed		8100	Reference books for study	Uniform within Japan	Day being surveyed
	9078	Personal computer (desk-top)	Uniform within Japan	POS data		9799	Tobacco (domestics)	Uniform within Japan	Day being surveyed
	9079	Personal computer (Notes)	Uniform within Japan	POS data		9798	Tobacco (imported)	Uniform within Japan	Day being surveyed
Culture & recreation	9043	Cameras	Uniform within Japan	POS data	Miscellaneous	9928	Charges for accident insurance	Uniform within Japan	Day being surveyed
	9205	Newspapers (National)	Uniform within Japan	Day being surveyed		9914	Charges for nursing care	By municipality	Day being surveyed
	9226	Monthly magazines	Uniform within Japan	Day being surveyed		9920	Charges for transfer commission	Uniform within Japan	Day being surveyed
	9230	Weekly magazines	Uniform within Japan	Day being surveyed					

Group	No.	Items	Area	Price used
	9300	Hotel charges	Uniform within Japan	Day being surveyed
	9305	Package tour to overseas	Uniform within Japan	Everyday
	9330	Charges for NHK TV license	Excluding Okinawa and Okinawa	Day being surveyed
	9367	Charges for other TV license	Uniform within Japan	Day being surveyed
	9345	Admission, soccer	Uniform within Japan	Day being surveyed
Culture & recreation	9350	Admission, professional baseball games	Uniform within Japan	Day being surveyed
	9353	Charges for practicing golf	Uniform within prefectures	Day being surveyed
	9372	Admission fee to the theme park	Uniform within Japan	Day being surveyed
	9374	Admission fee to the art museum	Uniform within prefectures	Day being surveyed
	9397	Internet connection charges	Uniform within prefectures	Day being surveyed
	9403	Music download service fee	Uniform within Japan	Day being surveyed

Excluding Okinawa:	Uniform within areas excluding Okinawa Prefecture
Excluding Hokkaido and Okinawa:	Uniform within areas excluding Hokkaido and Okinawa
	Prefecture
Excluding Okinawa and Okinawa:	Uniform within areas excluding Okinawa Prefecture and
	within Okinawa Prefecture
Excluding Okinawa, Okinawa and islands	
of Okinawa:	Uniform within areas excluding Okinawa Prefecture, within
	Okinawa Prefecture (excluding islands) and within islands of
	Okinawa Prefecture

# Appendix 3 Calculation of the weights for the imputed rent

(1) Imputed rent used for the weight

The imputed rent estimated<sup>30</sup> in the National Survey of Family Income and Expenditure (NSFIE), which is conducted every five years (one year before the base period, 2009 NSFIE for the 2010-base) is used. The correspondence of surveyed municipalities between the Family Income and Expenditure Survey (FIES) and NSFIE is as follows.

a) Released figures of corresponding cities are used for cities with prefectural governments and cities classified into middle and major cities.

b) As for other municipalities except for a), considering the sample size, figures of municipality groups (economic regions) within prefectures<sup>31</sup> to which the corresponding municipality belongs are used.

(2) Deduction of expenses

As the imputed rent in the NSFIE are estimated from rents for privately owned rented house, these conceptually include rents for land and costs of repairs and maintenance for equipment. Therefore, these costs and expenses are deducted.

The expenses to be deducted are calculated as follows.

Expenses to be deducted = (1) "Repairs & maintenance" of households having owned house – (2) "Repairs & maintenance<sup>32</sup>" of households renting privately owned houses + (3) "Rents for dwelling & land<sup>33</sup>" of households having owned houses.



<sup>&</sup>lt;sup>30</sup> For the details, refer to "Appendix 3 [reference] Method of estimating the "imputed rent of owned house" in the 2009 NSFIE" <sup>31</sup> The areas are established by dividing each prefecture into municipality groups for the NSFIE to obtain further detailed data on household expenditure in areas smaller than prefectures.

<sup>&</sup>lt;sup>32</sup> Small amount of repairs and maintenance which household renting a privately owned house usually shares.

<sup>&</sup>lt;sup>33</sup> Actually, only rent for land should be deducted. But there is no released figure for only rent for land in the statistical table in the NSFIE, so "rent for dwelling & land" is added to the expenses to be deducted.

## (3) Level adjustment

#### a) Adjustment to the FIES base

By multiplying the adjustment rate obtained from the following formula by imputed rent after the deduction calculated in (2), which is based on the 2009 NSFIE, FIES-based imputed rent from September to November<sup>34</sup> is calculated. Adjustment rates are calculated by district and applied to all municipalities in the district.

	Average living expenditure of the FIES from September	
Adjustment rate =	to November 2009	100
	Living expenditure of the 2009 NSFIE	×100

#### b) Adjustment to 2010 average

As the imputed rent calculated in above mentioned a) is an estimated value from September to November 2009, it is multiplied by the rate of change of the CPI (herein after referred to as "CPI rate of change") calculated by the following formula. Indices for "imputed rent" in 2005-base are used for this calculation.

Indices used for calculating the CPI rate of change are indices by district to which the municipalities belong.

CPI rate of change -	Index of 2010 average "imputed rent"	
CIT fate of change = -	Average of indices of "imputed rent" from September to	×100
	November 2009	

(4) Computation of imputed rent per household

Imputed rent obtained from above mentioned (3) is a rent per household having and owned house. To obtain the imputed rent per household of all household including households renting houses, it is multiplied by the rate of owned houses.

The rates of owned houses of the Housing and Land Survey in 2008 ("Fundamental Statistics Survey" based on the Statistics Act (Law No. 53, 2007, hereinafter referred to as "Housing Survey") are applied as follows.

- a) For 18 major cities<sup>35</sup>, the rate of owned houses in each city is applied.
- b) For cities other than above mentioned a), the rate of owned houses of a prefecture (excluding the 18 major cities), to which the municipality belong, is applied.
- (5) Division of imputed rent

As the "imputed rent" index is calculated from four classes of "small wooden house", "medium wooden house", "small non-wooden house" and "medium non-wooden house", the imputed rent of owned house obtained from above mentioned (4) is divided using the rate of division calculated from the results of the Housing Survey, and weights by the classes are calculated.

<sup>&</sup>lt;sup>34</sup> Since the survey period of the 2009 NSFIE is from September to November, 2009.

<sup>&</sup>lt;sup>35</sup> Government ordinance-designated cities as of October 1, 2008 (Sapporo, Sendai, Saitama, Chiba, Yokohama, Kawasaki, Niigata, Shizuoka, Hamamatsu, Nagoya, Kyoto, Osaka, Sakai, Kobe, Hiroshima, Kitakyushu and Fukuoka Cities) and Ku-area of Tokyo

The rate of division for Okinawa Prefecture is unified within the prefecture.

[Reference] Method of estimating the "imputed rent of owned house" in the 2009 NSFIE

To estimate the imputed rent for owned houses, individual data for private rental houses (with exclusive use of facilities) were derived from the Housing Survey conducted in October 2008, and Japan was divided into 4 regional blocks (Tokyo, the 3 Kanto area prefectures of Saitama, Chiba and Kanagawa, the 3 Kansai area prefectures of Kyoto, Osaka and Hyogo, and other Prefectures) (regional groups for estimation). Then a regression equation was developed using structure of dwelling, time of construction and total floor space as explanatory variables for each regional group and a coefficient was determined using the least-square method.

Regression equation>  $\ln \frac{y(i)}{S} = \left(a_i + \sum_j b_{i,j} x_j + c_i \ln S\right)$  *i*: Regional block *j*: Classes of dummy variables expressing housing characteristics
(structure of dwelling, etc.) and regional group *y*: Rent per month (yen) *x<sub>j</sub>*: Dummy variables expressing housing characteristics (structure of dwelling, etc.)
and regional group *S*: Total floor space (m<sup>2</sup>) \*Excluding the space for business use *a<sub>i</sub>*, *b<sub>ij</sub>*, *c<sub>i</sub>*: Coefficients

Next, a household living in a self-owned house was taken from the households survey in the National Survey of Family Income and Expenditure (NSFIE). Housing characteristics of such household were fitted into the above regression equation to obtain the estimated amount of rent. This value, multiplied by the ratio of the 2005-base national CPI of "house rent, private" in October 2009 (according to the NSFIE) and in October 2008 (according to the Housing Survey) was taken as the imputed rent of that household.

The following table shows the coefficient and dummy variables used in the estimation.

		Tokyo	3 prefectures	3 prefectures in
		TORYO	in Kanto area	Kinki area
Intercept		9.52149	9.51003	9.28648
Logarithm of the t	otal floor space	-0.44731	-0.54203	-0.52567
Structure of dwelling (base: wooden house ,	non-wooden house stand alone, non-wooden row house and fire-retarding wooden row house	0.03005	0.02277	0.10154
fire-retarding wooden house, stand alone and row house)	Non-wooden apartment house	0.12169	0.09293	0.20414
	1996 ~ 2003	-0.04823	-0.03612	-0.05170
Time of	1991 ~ 1995	-0.09085	-0.08946	-0.10421
construction	1981 ~ 1990	-0.13430	-0.13502	-0.14659
(base: 2004 ~)	1971 ~ 1980	-0.21278	-0.22923	-0.23435
	~ 1970	-0.29849	-0.31054	-0.37347
Equipment	Flush toilet	0.13756	0.19471	0.12725
	b <sub>i9</sub>	-0.11173	-0.10443	-0.09836
<b>D</b>	b <sub>i10</sub>	-0.22781	-0.21511	-0.19725
District dummy variable	b <sub>i11</sub>	-0.30498	-0.30674	-0.30991
	b <sub>i12</sub>	-0.42022	-0.40324	-0.41929
	b <sub>i13</sub>	-0.53141	-0.49891	
	b <sub>i14</sub>	-0.68253	-0.57377	

# Coefficients of regression equation

Intercept		9.03565
Logarithm of the total floor s	-0.57951	
Structure of dwelling (base: wooden house , fire-retarding wooden house stand alone and row	Non-wooden house stand alone and row house, and fire-retarding row house	0.08258
house)	Non-wooden apartment house	0.14006
	1996 ~ 2003	-0.04591
Time of constantion	1991 ~ 1995	-0.10800
(heaver 2004 )	1981 ~ 1990	-0.18965
(base: 2004 ~)	1971 ~ 1980	-0.30961
	~ 1970	-0.43855
Equipment	Flush toilet	0.25825
City classes	Cities with population over 100,000 and less than 300,000	0.03928
(base: town and village, city with population less	Cities with population over 300,000 and less than 1,000,000	0.09891
than 100,000)	Cities with population over 1,000,000	0.22095
	b <sub>i12</sub>	-0.05277
District dummy yorights	b <sub>i13</sub>	-0.09620
District duminy variable	b <sub>i14</sub>	-0.13130
	b <sub>i15</sub>	-0.19191

# District dummy variable list

1 Tokyo

base	Tokyo	Chiyoda- Ku	Chuo-Ku	Minato-Ku	Shinjuku- Ku	Meguro -Ku	Shibuya- Ku				
X1;9	Tokyo	Bunkyo- Ku	Taito-Ku	Shinagawa- Ku	Setagaya- Ku	Nakano -Ku	Suginami- Ku	Toshima- Ku	Musashino -shi		
x <sub>1;10</sub>	Tokyo	Sumida- Ku	Koto-Ku	Ota-Ku	Kita-Ku	Arakawa -Ku	Mitaka -shi	Chofu-shi	Komae -shi		
<b>x</b> <sub>1;11</sub>	Tokyo	Itabashi- Ku	Nerima- Ku	Edogawa -Ku	Fuchu-shi	Koganei -shi	Kokubunji -shi	Kunitachi -shi	Nish Tokyo-shi		
x <sub>1;12</sub>	Tokyo	Adachi- Ku	Katsushika -Ku	Tachikawa -shi	Kodaira -shi	Hino -shi	Higashi Kurume -shi	Tama-shi	Inaki-shi		
X <sub>1;13</sub>	Tokyo	Hachioji -shi	Akishima -shi	Machida -shi	Higashi Murayama -shi	Fussa -shi	Higashi Yamato -shi	Kiyose -shi	Musashi Murayama -shi	Hamura -shi	Mizuho -machi
x <sub>1;14</sub>	Tokyo	Ome-shi	Akiruno -shi	Hinode -machi	Hinohara -mura	Okutama -machi	Oshima -machi	Toshima- mura	Nijima -mura	Kozushima -mura	Miyake -mura
		Mikura- Jima -mura	Hachijo -machi	Aogashima -mura	Ogasahara -mura						

## 2 3 Prefectures in Kanto area

base	Chiba Pref.	Urayasu -shi									
	Kanagawa Pref.	Kanagawa- Ku	Nishi-Ku	Naka-Ku	Kohoku- Ku	Aoba- Ku	Tsuzuki- Ku	Kawasaki -Ku	Saiwai-Ku	Nakahara- Ku	Takatsu- Ku
		Tama-Ku	Miyamae -Ku								
X2;9	Saitama Pref.	Urawa-Ku	Minami- Ku	Warabi -shi	Toda-shi	Asaka -shi	Wako-shi				
	Chiba Pref.	Mihama- Ku	Ichikawa -shi								
	Kanagawa Pref.	Tsurumi- Ku	Minami- Ku	Hodogaya -Ku	Isogo-Ku	Kanazawa -Ku	Konan-Ku	Midori- Ku	Aso-Ku	Kamakura -shi	Fujisawa -shi
		Zushi-shi	Hayama- machi								
x <sub>2;10</sub>	Saitama Pref.	Kita-Ku	Omiya- Ku	Chuo-Ku	Sakura- Ku	Midori- Ku	Kawaguchi -shi	Tokorozawa -shi	Hatogaya -shi	Shiki-shi	Niza-shi
		Fujimi-shi									
	Chiba Pref.	Hanamigawa -Ku	Funahashi -shi	Matsudo -shi	Narashino -shi						
	Kanagawa Pref.	Totsuka- Ku	Asahi- Ku	Seya-Ku	Sakae-Ku	Izumi- Ku	Hiratsuka- shi	Chigasaki -shi	Sagamihara -shi	Yamato -shi	Oiso -machi
x <sub>2;11</sub>	Saitama Pref.	Minuma -Ku	Kawagoe -shi	Soka-shi	Koshigaya -shi	Yashio -shi	Misato -shi	Yoshikawa -shi	Fujimino -shi	Miyoshi-m achi	
	Chiba Pref.	Chuo-Ku	Inage-Ku	Kashiwa- shi	Nagareyama -shi	Yachiyo -shi					
	Kanagawa Pref.	Yokosuka- shi	Odawara -shi	Miura-shi	Atsugi -shi	Isehara -shi	Ebina-shi	Zama-shi	Ayase-shi	Samukawa -machi	Ninomiya -machi
		Oi-machi	Hakone -machi	Manazuru -machi	Yugawara -machi						
X <sub>2;12</sub>	Saitama Pref.	Nishi-Ku	Iwatsuki- Ku	Ino-shi	Higashi Matsuyama -shi	Kasugabe -shi	Sayama -shi	Ageo-shi	Iruma-shi	Okegawa -shi	Kuki-shi
		Hasuda-shi	Ina-machi	Shiraoka- machi	Shobu -machi	Kurihashi -machi	Washimiya -machi	Matsubushi -machi			

	Chiba Pref.	Wakaba- Ku	Midori- Ku	Narita-shi	Sakura -shi	Abiko- shi	Kamogawa -shi	Kamagaya- shi	Yotsukaido -shi	Inzai-shi	Shirai -shi
	Kanagawa Pref.	Hatano-shi	Minami Ashigara -shi	Nakai -machi	Matsuda- machi	Yamakita -machi	Kaisei -machi	Aikawa- machi	Kiyokawa- mura		
x <sub>2;13</sub>	Saitama Pref.	Kumagaya -shi	Gyoda -shi	Hanyu -shi	Konosu -shi	Kitamoto- shi	Sakato-shi	Satte-shi	Tsurugashima -shi	Hidaka-shi	Moroyama -machi
		Ogose -machi	Namegawa -machi	Ranzan- machi	Kawashima- machi	Yoshimi -machi	Hatoyama -machi	Minano- machi	Nagatoro- machi	Misato -machi	Yorii -machi
		Miyashiro- machi	Sugito -machi								
	Chiba Pref.	Tateyama -shi	Kisarazu -shi	Noda-shi	Mobara -shi	Togane -shi	Katsuura -shi	Ichihara -shi	Sodegaura- shi	Tomisato -shi	Sosa-shi
		Shisui -machi	Imba -mura	Motono- mura	Sakae- machi	Oami shirasato- machi	Ichinomiya- machi	Mutsuzawa -machi	Chosei -mura	Shirako -machi	Nagara- machi
		Chonan-m achi	Otaki-ma chi								
x <sub>2;14</sub>	Saitama Pref.	Chichibu -shi	Kasu-shi	Honjo-shi	Fukaya -shi	Ogawa -machi	Tokigawa -machi	Yokose -machi	Ogano -machi	Higashi Chichibu- mura	Kamikawa -machi
		Kamisato- machi	Kisai -machi	Kita Kawabe- machi	Otone -machi						
	Chiba Pref.	Choshi-shi	Asahi-shi	Kimitsu -shi	Futtsu-shi	Yachimata -shi	Minami Boso-shi	Katori-shi	Sambu-shi	Isumi-shi	Kozaki -machi
		Tako -machi	Tonosho- machi	Kujukuri- machi	Shbayama -machi	Yokoshiba Hikari -machi	Onjuku -machi	Kyonan -machi			

|--|

base	Kyoto Pref.	Shimogyo- Ku									
	Osaka Pref.	Fukushima -Ku	Tennoji- Ku	Abeno- Ku	Kita-Ku	Chuo-Ku					
	Hyogo Pref.	Ashiya-shi									
X3;9	Kyoto Pref.	Kita-Ku	Kamigyo- Ku	Sakyo-Ku	Nakagyo -Ku	Nishigyo- Ku	Nagaoka kyo-shi	Oyamazaki -machi			
	Osaka Pref.	Miyakojima -Ku	Nishi-Ku	Naniwa- Ku	Joto-Ku	Nishinari- Ku	Yodogawa -Ku	Tsurumi- Ku	Toyonaka -shi	Ikeda-shi	Suita-shi
		Takatsuki- shi	Ibaragi -shi	Mino-shi	Shimamoto -machi						
	Hyogo Pref.	Higashi Nada-Ku	Nada-Ku	Chuo-Ku	Amagasaki -shi	Nishinomiya -shi					
x <sub>3;10</sub>	Kyoto Pref.	Higashiyama -Ku	Minami- Ku	Ukyo-Ku	Yamashina- Ku	Muko -shi	Kyotanabe -shi				
	Osaka Pref.	Konohana -Ku	Minato- Ku	Taisho- Ku	Nishi Yodogawa -Ku	Higashi Yodogawa -Ku	Higashinari -Ku	Ikuno-Ku	Asahi-Ku	Sumiyoshi- Ku	Higashi Sumiyoshi -Ku
		Suminoe- Ku	Hirano- Ku	Sakai-Ku	Naka-Ku	Higashi- Ku	Nishi-Ku	Minami- Ku	Kita-Ku	Mihara-Ku	Moriguchi -shi
		Hirakata -shi	Yao-shi	Neyagawa -shi	Kawachi Nagano- shi	Matsubara -shi	Daito-shi	Kashiwara -shi	Kadoma -shi	Settsu-shi	Takaishi -shi
		Higashi Osaka-shi	Shijonawate -shi	Katano -shi	Osaka Sayama- shi						

	Hyogo Pref.	Hyogo-Ku	Nagata- Ku	Suma-Ku	Itami-shi	Takarazuka -shi	Kawanishi -shi	Sanda-shi			
x <sub>3;11</sub>	Kyoto Pref.	Fushimi- Ku	Ayabe -shi	Uji-shi	Kameoka- shi	Joyo-shi	Nantan -shi	Kizugawa -shi	Seika -machi	Kyotanba- machi	
	Osaka Pref.	Kishiwada -shi	Izumiotsu -shi	Kaizuka -shi	Tondabayashi- shi	Izumi -shi	Habikino -shi	Fujiidera- shi	Toyono- machi	Nose -machi	Tadaoka -machi
		Kumatori- machi	Taishi -machi	Kanan -machi	Chihaya Aksaka -mura						
	Hyogo Pref.	Tarumi- Ku	Kita-Ku	Nishi-Ku	Himeji -shi	Akashi -shi	Sumoto -shi	Kakogawa -shi	Miki-shi	Inagawa machi	Inami -machi
		Harima -machi									
x <sub>3;12</sub>	Kyoto Pref.	Fukuchiyama -shi	Maizuru -shi	Miyazu -shi	Yawata -shi	Kyotango -shi	Kugoyama -machi	Ide-machi	Uji Tawara -machi	Kasagi -machi	Watsuka -machi
		Minami Yamashiro -mura	Ine-machi	Yosano- machi							
	Osaka Pref.	Izumisano -shi	Sennan -shi	Hannan -shi	Tajiri- machi	Misaki- machi					
	Hyogo Pref.	Aioi-shi	Toyooka- shi	Ako-shi	Nishiwaki -shi	Takasago -shi	Ono-shi	Kasai-shi	Sasayama -shi	Yabu-shi	Tanba -shi
		Minami Awaji-shi	Asago-shi	Awaji-shi	Shiso-shi	Kato-shi	Tatsuno -shi	Taka -machi	Ichikawa- machi	Fukuzaki- machi	Kamikawa -machi
		Taishi -machi	Kamigori -machi	Sayo -machi	Kami -machi	Shinonsen -machi					

# 4 Other Prefectures

base	Tokai	Kinki	
X4;12	Kanto		
x <sub>4;13</sub>	Hokuriku	Chugoku	
x4;14	Tohoku	Shikoku	Kyushu
X4;15	Hokkaido	Okinawa	

# Appendix 4 Calculation of the CPI by midpoint-year basket method

The midpoint-year basket method is used to calculate indices using the consumption structure between the base period and the observation period.

To measure the price movement between the base period and the observation period, it is considered to be appropriate to use the average basket (consumption pattern) of the base period and the observation period<sup>36</sup>, while it is not possible to calculate this kind of index timely, because it needs a basket in the observation period. However, under the assumption that the basket changes smoothly from the base period to the observation period, approximated indices can be calculated by using a midpoint-year basket between the base period and the observation period.

The formulas actually used are as follows. After integrating indices of the items excluding items whose rate of decrease is remarkably greater than that of other items, by the arithmetic mean, they are integrated with the indices of items whose rate of decrease is remarkably and others by the geometric mean.<sup>37</sup>

The yearly average indices are calculated for Japan.

<sup>&</sup>lt;sup>36</sup> The Walsh index (a method that uses the geometric mean of the base period and the observation period) and Edgeworth index (a method that uses the arithmetic mean of the base period and the observation period) are the case. The former is one of the superlative indices such as the Fisher and Tornqvist index and the latter is known to the quite close to superlative indices. In general, differences among superlative indices, and between superlative indices and the Edgeworth index or chain indices are very small.
<sup>37</sup> If one formula is applied to all items including those whose rate of decrease of price indices is large compared to other items, a

<sup>&</sup>lt;sup>37</sup> If one formula is applied to all items including those whose rate of decrease of price indices is large compared to other items, a large difference may occur even between superlative indices. However, in the case of chain superlative indices, the difference by the formula is small. It seems to be appropriate to integrate price indices of the item shoes rate of decrease is large and those of other items by the geometric mean, if the target is chain superlative indices.

• In case of 2012 and 2014

$$I_{t}^{h} = \exp\left[\left(1 - \sum_{j=1}^{m} s_{h,j}\right) \ln\left[\frac{\sum_{i=1}^{n} P_{t,i} q_{h,i}}{\sum_{i=1}^{n} P_{0,i} q_{h,i}}\right] + \sum_{j=1}^{m} s_{h,j} \ln\frac{P_{t,j}}{P_{0,j}}\right] \times 100$$

$$= \exp\left[\left(1 - \sum_{j=1}^{m} s_{h,j}\right) \ln\left[\frac{\sum_{i=1}^{n} \frac{P_{t,i}}{P_{h,i}} p_{h,i} q_{h,i}}{\sum_{i=1}^{n} \frac{1}{P_{h,i}} p_{h,i} q_{h,i}}\right] + \sum_{j=1}^{m} s_{h,j} \ln\frac{P_{t,j}}{P_{0,j}}\right] \times 100$$

$$= \exp\left[\left(1 - \sum_{j=1}^{m} s_{h,j}\right) \ln\left[\frac{\sum_{i=1}^{n} I_{t,i} \frac{W_{h,i}}{I_{h,i}}}{\sum_{i=1}^{n} \frac{W_{h,i}}{I_{h,i}}}\right] + \sum_{j=1}^{m} s_{h,j} \ln I_{t,j}\right]$$

0: base year [2010]

*t*: observation year [2012 or 2014]

h: mid-point year [2011 if observation year is 2012, 2012 if it is 2014]

*i*: items excluding items whose rate of decrease is large

*j*: items whose rate of decrease is large

n: number of items excluding items whose rate of decrease is large

*m*: number of items whose rate of decrease is large

*p*: price *q*: quantity *w*: weight  $I_i$ : price indices by item

$$s_{h,j} = \frac{w_{h,j}}{\sum_{j=1}^{m} w_{h,j} + \sum_{i=1}^{n} w_{h,i}}$$

: Share of the items whose rate of decrease is large

$$I_{t}^{h} = \exp\left[\left(1 - \sum_{j=1}^{m} \frac{s_{h,j} + s_{h+1,j}}{2}\right) \ln\left[\frac{\sum_{i=1}^{n} p_{t,i}(q_{h,i} + q_{h+1,i})}{\sum_{i=1}^{n} p_{0,i}(q_{h,i} + q_{h+1,i})}\right] + \sum_{j=1}^{m} \frac{s_{h,j} + s_{h+1,j}}{2} \ln \frac{p_{t,j}}{p_{0,j}}\right] \times 100$$

$$= \exp\left[\left(1 - \sum_{j=1}^{m} \frac{s_{h,j} + s_{h+1,j}}{2}\right) \ln\left[\frac{\sum_{i=1}^{n} \left(\frac{p_{t,i}}{p_{h,i}} - \frac{p_{h,i}}{p_{h,i}} - \frac{p_{h,i}}{p_{h,i}} - \frac{p_{h+1,i}}{p_{h+1,i}} - \frac{p_{h+1,i}}{p_{h,i}} - \frac{p_{h+1,i}}{p_{h,i}} - \frac{p_{h+1,i}}{p_{h,i}} - \frac{p_{h+1,i}}{p_{h+1,i}} -$$

0: base year [2010]

*t*: observation year [2013 or 2015]

h: mid-point year [2011 if observation year is 2013, 2012 if it is 2015]

*i*: items excluding items whose rate of decrease is large

*j*: items whose rate of decrease is large

*n*: number of items excluding items whose rate of decrease is large

*m*: number of items whose rate of decrease is large

*p*: price *q*: quantity *w*: weight  $I_i$ : price indices by item

$$s_{h,j} = \frac{w_{h,j}}{\sum_{j=1}^{m} w_{h,j} + \sum_{i=1}^{n} w_{h,i}} \qquad s_{h+1,j} = \frac{w_{h+1,j}}{\sum_{j=1}^{m} w_{h+1,j} + \sum_{i=1}^{n} w_{h+1,i}} \quad \text{: Share of the items whose rate of decrease is large}$$

[Explanatory Notes] "Items" marked with \* are surveyed in Okinawa Prefecture only. Survey classification by the Retail Price Survey (RPS) Blank: Surveyed in all municipalities 1) : Surveyed in cities with population of 50,000 or more 2) : Surveyed in cities with population of 150,000 or more 3): Surveyed in cities with prefectural government In the case of "D" (Characteristics of items surveyed by the RPS) 1') : Surveyed in cities 2') : Surveyed in cities with population of 50,000 or more Characteristics of items surveyed by the RPS A: Items which consumers purchase mainly at their neighbouring areas, and the prices differ among areas B: Items which are usually sold at representative commercial areas and large retail stores, and the prices differ among outlets C: Items whose price differences are comparatively small among areas and outlets D: Items of a single price or negligible price differences within the municipality E: Items of a single price or negligible price differences throughout the country or the region S: Items whose prices are surveyed at any place of the municipality without fixing survey districts House rent: House rent of household living in rented house Accommodation: Lodging charges for general Hotels POS: Items which calculated using prices are collected from the POS information data Frequency of price survey by the RPS \*: Three times a month (every 10-days in a month) Blank: Once, in the middle of the month Method of price substitution, if not surveyed Blank: Don't substitute prices A: (Items marked with 3) Prices of cities with prefectural government are substituted B: (Items marked with 2) Prices of neighboring cities with population of 150,000 or more are substituted C: (Items marked with 1) Prices of neighboring cities with population of 50,000 or more are substituted D,E: (Railway fares) Prices of enterprises chosen are substituted in the same prefecture F: (Fixed route bus fares) Prices of designed cities by business areas and geographical conditions of enterprises are substituted H-M: (School fees) Prices of designated cities within a commutable district are substituted N: Prices of cities with prefectural governments are substituted O: Single price throughout the country G,P: Single price throughout the country, except Okinawa Prefecture Q: Single price throughout the country, except Hokkaido and Okinawa Prefecture Classification for goods and service group (Goods) (Public services) (General services) 1: Fresh food, raw meats & cut flowers 9: House rent, public, Urban Renaissance Agency 15: Meals outside the home & public corporation 2: Other agricultural, aquatic & livestock products 16: House rent, private 3: Food products 10: Services related to domestic duties 17: Imputed rent 4: Textiles 11: Services related to medical care & welfare 18: Other Services (Services related to domestic duties) 5: Petroleum products 12: Services related to forwarding & communication 19: Other Services 6: Other industrial products 13: Services related to education (Services related to medical care & 7: Electricity, manufactured & piped gas & water charges 14: Services related to culture & recreation 20: Other Services (Services related to education) 8: Publications 21: Other Services (Services related to communication, culture & (Reference 1: Durable goods) 1: Durable goods 2: Semi-durable goods 3: Non-durable goods (Reference 2: Fees for public services) \*: items categorized into "Fees for public services" Energy (Reference: Basic classification) \*: items categorized into "Energy" Expenses for education (Reference: Basic classification) \*: items categorized into "Expenses for education" Expenses for culture & recreation (Reference: Basic classification) \*: items categorized into "Expenses for culture & recreation" Expenses for information & communication (Reference: Basic classification) \*: items categorized into "Expenses for information & communication"

Classification for annual purchase frequency (frequency of purchases per household per year)

1: Items seldom purchased 4: Items purchased once every two months

2: Items purchased once a year 5: Items purchased once a month

3: Items purchased twice a year 6: Items frequently purchased

Classification for expenditure elasticity

1: Elasticity less than 1.00 2: 1.00 and over

					Wei	ght		Price survey	,						E	ш	
Groups • Items	Group c	Item co	Serial nu	Japan	I	Ku-area of	Tokyo	Characteris Survey cl	Frequency of Period for index	Method of price	classif goods	ication and serv group	of Energy	Expenses for	xpenses for readir	Expenses for informatio	Expenditure ( Frequency of
	ode	ode	mber	Actual number	Per 10000	Actual number	Per 10000	ttics of items assification	f price survey	substitution	Categorize	Reference1	Reference2	education	ng & recreation	n & communication	elasticity
All items Food	0001		001	3 157 986 390 797 528 399	10 000	250 171 389	10 000		-	-	-				-	-	
Cereals	0002		002	68 469 210	2 525	4 496 898	180		-	-		-			-	-	
Rice Non-glutinous rice	0004	1000	004 005	24 018 140 22 818 067	76 72	1 420 716 1 349 970	57 54		-	-	-	-		· -	-	-	
Rice-A(domestic), "Koshihikari"		1001	006	9 607 431 13 210 636	30	568 544 781 426	23	A			2	3					5 1
Glutinous rice		1002	007	1 200 073	42	70 746	3	A			$\frac{2}{2}$	3					$\begin{array}{c} 3 & 1 \\ 1 & 1 \end{array}$
Bread White bread	0005	1021	009 010	24 854 442 7 233 650	79 23	1 805 963 522 237	72 21	 A	-	-	- 3	- 3			-	-	 6 1
Bean-jam buns		1022	011	8 810 396	28	641 863	26	A			3	3					6 1
Curry buns Noodles	0006	1023	012 013	8 810 396 15 533 884	28 49	641 863 993 665	26 40		-	-	3	3		-   -	-	-	6 1 
Boiled noodles		1031 1041	014	3 253 296 2 503 855	10	200 662 140 206	8	3) A		А	3	3					6 1 4 1
Spaghetti		1041	015	1 127 510	4	94 543	4	3) A		А	3	3					4 2
Instant noodles Uncooked Chinese noodles		1051 1052	017 018	4 696 816 3 927 566	15 12	270 766 287 488	11 11	A 3) A		А	3 3	3					$\begin{array}{c c}6 & 1\\6 & 1\end{array}$
*"Okinawa"noodles	0007	1061	019	24 841	1	-	-	Α			3	3					1 1
Wheat flour	0007	1071	020	4 062 744 1 136 253	13	276 554 60 456	2	 A	-	-	- 3	- 3		• -	-	-	3 1
"Mochi", rice-cakes Fish & seafood	0008	1081	022	2 926 491 69 438 002	9 220	216 098 4 564 427	9 182	3) C		А	3	3					3 1
Fresh fish & seafood	0008		023	40 456 237	128	2 731 451	102		-	_	-	-			-	-	
Tuna fish Horse mackerel		$\frac{1101}{1102}$	025 026	7 072 438 1 792 854	22 6	732 546 109 335	29 4	1) A A	*	C	$\begin{array}{c} 1 \\ 1 \end{array}$	3					5 1 3 1
Sardines		1103	027	838 863	3	51 452	2		* Xar Oat	C	1	3					3 1
Flounder		1104 1105	028 029	2 045 357 1 911 335	6 6	85 539	5	1) A A	MarOct.	C	1	3					$   3 1 \\   3 1 $
Salmon Mackerel		$1106 \\ 1107$	030 031	5 029 007 1 425 544	16 5	337 010 64 315	13	2) A A	*	В	1 1	3					5 1 3 1
Saury		1108	032	1 477 424	5	91 327	4	A	*	G	1	3					3 1
Sea bream Yellowtail		1110 1111	033 034	1 537 400 4 102 849	5 13	79 750 214 812	3 9	1) A 1) A	*	C C	1	3					$   \begin{array}{cccc}     3 & 1 \\     4 & 1   \end{array} $
Cuttlefish		1112 1113	035 036	3 251 268 1 719 922	10	174 936 117 053	7	A	*		1	3					4 1 3 1
Prawns		1114	037	4 320 332	14	240 538	10	2) A		В	1	3					4 1
Short-necked clams Oysters		1131 1132	038 039	1 580 100 936 550	5	135 061 61 742	5	1) A 1) A	* JanMar.,OctDec	C 2. C	1 1	3					4 1 3 1
Scallops Salted & dried fish	0010	1133	040 041	1 414 994 12 873 571	4	104 833 807 153	4	3) A		А	1	3					3 1
Salted salmon	0010	1141	041	2 858 725	9	122 841	5	A			3	3				-	4 1
Salted cod roe "Shirasu-boshi", dried young sardines		1142 1143	043 044	3 931 600 1 931 229	12 6	262 405 149 211	10 6	1) B 1) A		C C	3 3	3					$\begin{array}{c c} 4 & 1 \\ 4 & 1 \end{array}$
Dried horse mackerel		1144 1146	045	1 421 216	5	129 916	5	3) A		А	3	3					3 1
Capelin		1140	040	546 339	2	29 585	1	1) A		С	3	3					$\begin{array}{c} 2 \\ 2 \\ 1 \end{array}$
Salmon roe Fish-paste products	0011	1167	048 049	1 641 665 7 558 830	5 24	89 398 422 549	4	3) B	-	A -	3	3			_	_	3 1
"Agekamaboko", fried fish-paste patties		1151	050	2 578 315	8	152 426	6	A			3	3					5 1
"Kamaboko", steamed fish-paste cakes		1152 1153	051	3 127 470	10	180 082	7	2) A B		В	3	3					5 1
Other processed fish & seafood Dried bonito fillets	0012	1161	053 054	8 549 364 1 044 144	27	603 274 72 033	24	 2) C	-	- B	-3	- 3		· -	-	-	 3 1
Pickled fish		1165	055	3 360 949	11	267 550	11	3) A		A	3	3					4 1
Canned fish		1173	056 057	1 286 594 2 556 190	4	87 468 156 285	3 6	3) A 3) B		A A	3 3	3					5 1 4 1
"Shiokara", salted fish guts Meats	0013	1163	058 059	301 487 64 498 902	1 204	19 938 4 442 228	1 178	3) B	_	A	3	3			_	-	2 1
Raw meats	0014	1001	060	50 339 974	159	3 480 721	139		-	-		-			-	-	
Beef-B		1201 1203	061 062	13 928 341 3 482 489	44 11	976 943 244 397	39 10	3) A A		А	1	3					6 1 6 1
Pork-A Pork-B		1211 1212	063 064	10 941 844 10 941 844	35 35	757 629 757 629	30 30	A A			1	3					6 1 6 1
Chicken		1212	065	10 843 261	34	733 833	29	A			1	3					6 1 6 1
Liver Meat products	0015	1241	066 067	202 195 14 158 928	1 45	10 290 961 507	38	3) A 	-	A -	1 -	3			-	-	2 1
Ham Sausages		1252 1261	068 069	5 297 806 6 678 857	17 21	391 034 419 333	16 17	A A			3	3					5 1 6 1
Bacon		1201	070	2 159 304	7	151 140	6	3) A		А	3	3					4 1
*Canned pork Dairy products & eggs	0016	1291	071 072	22 961 33 323 947	1 106	- 2 418 883	- 97	B		_	3	3					1 1
Fresh milk & dairy products	0017		073	26 239 327	83	1 964 820	79		-	_	-	-	-   -	-   -	-	-	
Fresh milk (delivered)	0018	1301	074 075	13 763 109 688 328	44 2	944 786 46 950	38 2	S	-	-	-3	- 3	-   -	·   -	-	-	 3 1
(sold in stores) Dairy products	0010	1303	076 077	13 074 781 12 476 219	41	897 836 1 020 034	36 41	Α		_	3	3		_		_	6 1
Powdered milk	5017	1311	078	632 940	2	48 236	2	B		-	3	3	-				1 1
Y ogurt Butter		1333 1321	079 080	7 488 234 751 556	24 2	580 763 66 887	23	2) A C		В	3 3	3 3					6 1 3 1
Cheese Cheese(imported)		1331 1332	081 082	1 801 744 1 801 744	6	162 074 162 074	6	1) C 3) C		C A	3	3					5 1 5 1
Eggs	0020	1002	083	7 084 620	22	454 063	18		-	-	-	-	-   -	-   -	-	-	
Hen eggs		1341	084	/ 084 620	22	454 063	18	A				5					σΙ

					Wei	ght		Price	e survey						п			_
Crouns a Itoms	Grou	Item	Serial	Japan	L	Ku-area of	Tokyo	Survey	Frequency	Period for inde	Method of pri	classifica goods an gro	ation of nd service oup	Expenses in	Expenses for rea	Expenses for informa	Expenditur Frequency	-
Groups Trems	) code	code	number	Actual number	Per 10000	Actual number	Per 10000	classification	ristics of items	computation	ce substitution	Categorize	Reference2	or education	ling & recreation	tion & communication	e elasticity of purchases	•
Vegetables & seaweeds	0021		085	85 887 615	272	6 693 892	268	-			-	-						-
Fresh vegetables	0022	1401	086	55 384 707	175	4 551 564	182	-			-			-   .	-   -			1
Spinach		1401	087	2 988 970 2 417 302	8	194 231	8		A A			1	3				5 1	1
Chinese cabbage		1403	089	1 409 857	4	97 115	4		A *			1 1	3				5 1	L
Welsh onions Lettuce		1405 1406	090 091	3 434 026 2 437 566	11	300 350 206 451	12		A '			1 3	3				6 1 6 1	г 1
Broccoli		1400	092	1 777 487	6	165 932	7	3)	A '		A	1	3				5 1	i
Bean sprouts		1407	093 004	1 295 418	4	95 186 142 136	4	3)	A		A	1 1	3				6 1 5 1	1 1
Sweet potatoes		1410	094 095	900 515	3	61 099	2	5)	A A		A	1	3				3 1	1
White potatoes		1412	096	2 540 791	8	191 015	8		A			1 1	3				5 1	1
aros Radishes		1413 1414	097 098	1 688 633	3 5	61 742 136 348	2		A A			1 .	3				<b>3</b> 1 <b>5</b> 1	1
Carrots		1415	099	2 210 175	7	164 003	7		A			1	3				6 1	L
Burdocks Onions		1416 1417	100 101	999 834 3 007 137	3 10	62 385 223 816	2		A A			1	3				4 1	ι 1
Lotus roots		1419	102	840 309	3	61 742	2	2)	A '		В	1	3				3 1	l.
"Naga-imo", yams Ginger		1420 1421	103 104	1 244 434	4	98 402 73 319	4	2)	A A		B	1 1	3				4 1	⊥ 1
Green soybeans		1421	104	1 023 470	3	115 124	5	3)	A '	June-Sep.	A	1	3				4 1	i
Kidney beans		1432	106	1 023 470	3	115 124	5	2)	A		В	1 3	3				4 1	1
Cucumbers		1433	107	3 016 704	4 10	263 691	11		A A			1	3				6 1	i
Eggplants		1435	109	1 721 032	5	151 783	6		A			1 1	3				5 1	1
Green peppers		1436 1437	110 111	6 044 546 1 654 002	19 5	573 689 141 493	23	1)	A A		C	1 $1$	3				6 I 5 1	1
"Shiitake", Japanese mushrooms, fresh		1438	112	2 020 624	6	141 493	6	2)	Α		В	1	3				5 1	L
"Enokidake", mushrooms "Shimeji" mushrooms		$1442 \\ 1443$	113 114	2 532 390 2 532 390	8	185 227 185 227	7	1) 2)	A A		C B	1	3				6 1 6 1	ι 1
*"Nigauri"		1439	115	24 444	1	-	-		A '	,	D	1	3				1 1	l
*"Toga" Processed vegetables & seaweeds	0023	1440	116 117	4 059 30 502 908	1 97	- 2 142 328	- 86		A *			1 3	3	_		_	1 1	l
Dried vegetables & seaweeds	0023		118	7 634 685	24	513 233	21	-			-	-						-
"Azuki", red beans "Shiitake", Japanese mushrooms, dried		1451 1453	119 120	717 808	2	42 448 37 946	2	3)	C C		A	$\begin{vmatrix} 2 \\ 3 \end{vmatrix}$	3				3 1	1
Laver		1455 1461	120	2 914 937	9	224 459	9		A			3	3				4 1	i
"Wakame", seaweed		1462	122	1 663 411	5	112 551	4	1)	A		C	3	3				4 1	1
"Hijiki", edible brown algae		1463 1464	123 124	343 981	4	74 605 21 224	3 1	1) 3)	A A		A	3	3				3 1 3 1	1
Soybean products	0025	1 471	125	11 223 049	36	761 488	30	-			-	-			-   -			
Fried bean curd		1471 1472	126 127	5 357 967 2 904 988	17	361 450 194 874	14		A A			3	3				6 1 6 1	I
"Natto", fermented soybeans	0026	1473	128	2 960 094	9	205 164	8	1)	А		C	3 3	3				6 1	l
"Konnyaku", devil's-tongue	0026	1481	129 130	1 645 174 1 932 251	57	122 841	55 5	-	A		-	3	3			. –	6 1	1
"Umeboshi", pickled plums		1482	131	2 339 045	7	216 098	9		A			3 2	3				3 1	ł
Pickled Chinese cabbage		1485 1486	132 133	1 872 638	3	90 684	5	1)	A A		C	3	3 3				4 1 3 1	1
"Kimuchi"		1487	134	2 473 899	8	190 372	8	3)	A		Α	3 2	3				4 1	ł
Canned sweet corn		1485 1491	135 136	312 950	5	28 299	4	3)	A B		Α	3	3				4 1 3 1	1
Fruits	0027		137	30 728 767	97	2 175 130	87	-			-	-						
Apples-A	0028	1501	138 139	29 179 377 574 712	92	2 032 994 28 942	81	-	- A	AugOct.	-	1	3				5 1	1
Apples-B		1502	140	3 256 493	10	162 717	7		A 7	JanJuly,NovI	ec.	1 1	3				5 1	1
Grapefruits		1511	141	4 787 824 696 852	13	524 790 70 746	13	3)	AA	JanMar.,SepI	A	1 $1$	3				4 1 3 1	1
Oranges		1515	143	680 239 252 022	2	54 025	2	3)	A		A	1 3	3				3 1	1
Iyo-mandarins		1513	144 145	252 033 376 197	1	18 008 27 012	1	1) 3)	A A	JanMar.	A	1 $1$	3					1
Pears		1521	146	1 947 740	6	147 924	6		A '	AugOct.		1 1	3				3 1	1
Grapes-A Grapes-B		1531 1532	147 148	733 484 1 466 838	2 5	40 518 81 037	23		A A	June-Sep. July-Oct.		$\begin{array}{c c} 1 \\ 1 \end{array}$	3				$\begin{vmatrix} 3 & 1 \\ 3 & 1 \end{vmatrix}$	I
Persimmons		1541	149	1 026 101	3	67 531	3		A	OctDec.		1 1	3				3 1	1
Watermelons		1551 1561	150 151	1 206 340	4	109 335	4		A A	May-Aug.		1 $1$	3				3 1 3 1	1
Melons		1563	152	1 254 716	4	72 033	3	2)	A	May-Aug.	В	1 1	3				3 1	1
Bananas		1571 1581	153 154	3 169 178 4 335 886	10 14	277 840 274 625	11		A A	JanMay,Dec.		1 $1$	3				4 I 6 1	1
Kiwi fruits		1582	155	1 055 981	3	94 543	4	3)	A	Tana T 1	A		3				3 1	1
Cherries Processed fruits	0029	1572	156 157	1 027 727 1 549 390	3 5	93 257 142 136	4	3) -	A /	June-July	A -		5	_   .		-   -	3 1	-
Canned fruits	00000	1591	158	1 549 390	5	142 136	6		С			3 3	3				4 1	l
Oils & fats	0030		159 160	33 715 019 3 454 376	107 11	2 195 709 225 745	88 9	-	-   -		-		-   -	-   -	-   -	·   -		-
Edible oil		1601	161	2 716 442	9	176 866	7		A			3	3				4 1	1
Seasonings	0032	1602	162 163	737 934 30 260 643	2 96	48 879 1 969 964	2 79	-	C .		-	3	5	_   .		-   -	3 1	-
Salt		1611	164	620 083	2	37 946	2	3)	C		Α	3	3				3 1	1
Soy sauce Soybean paste		1621 1631	165 166	2 370 160 2 858 255	8 9	126 057 184 584	5 7		в A			3 3	3					1
Sugar		1632	167	1 544 289	5	81 037	3		A			3	3				4 1	1
Vinegar Worcester sauce		1633 1641	168 169	1 473 046 <u>879 43</u> 8	5	88 111 <u>5</u> 4 025	4		C C			3	5 3				3 1 3 1	1

					Wei	ght		Price survey						E	Ē	
Groups • Items	Group code	Item code	Serial number	Japan Actual number	Per 10000	Ku-area of Actual number	Tokyo Survey classification Per 10000	Characteristics of items	Free Period for index computation	Method of price substitution	classificat goods and gro Categori.	ion of diservice up Referenc	Expenses for education Energy	xpenses for reading & recreati	xpenses for information & communica	Expenditure elasticity Frequency of purchases
									<		ze	. e2		on	tion	
Ketchup Mavonnaise		1642 1643	170 171	658 966 1 501 366	2 5	46 950 88 111	$ \begin{array}{c c} 2 & 3) \\ 4 & 1 \end{array} $	C B		A C	3 3	3				$   \begin{array}{c cc}     3 & 1 \\     4 & 1   \end{array} $
Dressing		1645	172	1 982 522	6	149 211	6 3)	C		A	3 3	3				4 1
Jam Instant curry mix		1644 1652	173 174	1 375 830	4	125 414	5 3)	C		A	3 3	3				$\begin{array}{c c} 3 & 1 \\ 4 & 1 \end{array}$
Instant curry mix		1653	174	2 720 936	9	205 164	8 3)	C		A	3 3	3				5 1
Flavor seasonings		1654 1656	176	2 169 206	7	147 924	6 3) 4 3)	C C		A	3 3	3				4 1
Liquid seasonings		1655	177	4 829 299	15	295 205	12 3)	B		A	3	3				$   \frac{4}{5}   1 $
Chinese seasonings		1657 1658	179	848 685	3	60 456 68 817	$\begin{pmatrix} 2 & 3 \\ 3 & 3 \end{pmatrix}$	C C		A	3 3	3				3 1
Cakes & candies	0033	1038	180	70 816 953	224	5 037 140	201 -	-	-	- A		, - –		-	-	5 1
"Yokan", sweet bean jelly		1701	182	3 781 843	12	338 296	14 3)	В		A	3 3	3				2 1
"Manju", bean-jam cakes "Daifukumochi", rice cakes stuffed with sweetened bean jam		1702 1703	183 184	7 622 064 2 403 690	24	374 956 186 513	15 3) 7 3)	A B		A A	3 3	3				$   \begin{array}{c cccccccccccccccccccccccccccccccccc$
"Kasutera", sponge cakes		1711	185	1 489 062	5	108 692	4 3)	В		A	3 3	3				3 1
Jelly		1712 1784	186 187	3 231 239	37 10	968 582 222 529	39 3) 9 2)	В		A B	3 $3$ $3$	3				$\begin{array}{c c} 4 & 2 \\ 4 & 1 \end{array}$
Pudding		1714	188	2 618 921	8	183 941	7 3)	B		A	3 3	3				4 2
"Sembei", Japanese crackers		1713 1741	189 190	6 151 254	19	468 855	8 3) 19	В А		A	3 3	3				$   \frac{3}{6}   \frac{2}{1} $
Biscuits		1721	191	3 802 395	12	314 500	13	A		G	3 3	3				5 2
Potato chips Candies		1783 1732	192 193	4 749 961 2 690 091	15	264 334 171 721	$\begin{array}{c c}11 & 1 \\ 7 & 1 \end{array}$	A A		C C	$\begin{vmatrix} 3 & 3 \\ 3 & 3 \end{vmatrix}$	3				$   \begin{array}{c c}     6 & 1 \\     5 & 1   \end{array} $
Chocolate		1761	194	6 435 763	20	436 055	17	В		-	3 3	3				6 2
Ice cream Peanuts		1782 1772	195 196	9 318 477 735 662	30 2	631 572 53 381	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	A A		B C	$\begin{vmatrix} 3 & 3 \\ 3 & 1 \end{vmatrix}$	3				$     \begin{array}{ccc}       6 & 1 \\       3 & 1     \end{array} $
Chewing gum		1781	197	1 718 496	5	125 414	5	C			3 3	3				3 1
Cooked food with rice, bread or noodles	0034 0035		198 199	88 345 330 36 199 922	280 115	6 783 290 2 912 821	271 -	-	-	-				-	-	
Sushi (Box lunch)	0022	1795	200	12 126 329	38	803 293	32 3)	С		А	3 3	3				6 1
Box lunch Bice balls		1791 1793	201 202	13 454 214 3 838 322	43	1 180 178 320 931	47 3)	S A		A	3 3	3				6 1 5 1
Sandwiches		1792	202	3 928 686	12	384 603	15 1)	C		A	3 3	3				5 1 5 2
Frozen pilaf Cooked pasta		1794 1796	204 205	1 902 239	6	149 211 74 605	6 3) 3 3)	B C		A A	3 3	3				4 1 3 1
Other cooked food	0036	1790	205	52 145 408	165	3 870 469	155 -	-	-	-				-	-	
"Kabayaki", broiled eels		1801	207	4 472 516	14	333 151	13 3) 18 1)	C		A	3 3	3				3 1
Croquettes		1811	208 209	4 271 873 4 920 348	14	439 208 316 429	13 1)	A A		C	3	3				5 1 5 1
Pork cutlets		1831 1842	210	3 892 249	12	320 288	13 3) 22 3)	В		A	3 3	3				3 1
"Gyoza"		1842 1881	211 212	4 552 845	29 14	338 890	15 3)	B		A	3	3				5 1 5 1
"Yakitori", grilled chicken		1843	213	2 709 358	9 12	239 251	$10 \ 3) \ 0 \ 3)$	B		A	3 3	3				3 1
Frozen hamburg steak		1851	214	3 975 506	13	236 679	9 3) 9 3)	B		A	3	3				5 2 5 2
Cooked curry "Magazahan no moto", propagad motorials to stoomed rice with assorted ingradiants		1871 1801	216	1 141 521	4	87 468 58 527	3 3)	B		A	3 3	3				3 1
Boiled beans		1891	217 218	1 521 321	5	58 527 116 410	2 3) 5 3)	A		A A	3 $3$	3				$\begin{array}{c c} 2 & 1\\ 3 & 1 \end{array}$
Grilled fish		1802	219	4 186 030	13	320 931	13 3)	B		A	3 3	3				4 1
Beverages	0037	1015	220 221	44 766 611	142	3 107 051	124 -	-	-	-				-	-	
Tea Green tea	0038	1002	222	11 805 478	37	935 782	37 -	-	-	-			-   -	-	-	 2 1
Black tea		1902 1911	223 224	1 005 653	3	101 618	4	C			3 3	3				3 1 3 2
Tea beverages	0039	1914	225 226	5 571 147 8 651 885	18 27	441 200 551 821	18 3) 22 -	A	_	A	3 3	3				6 1
Instant coffee	0057	1921	220	2 307 382	7	153 069	6 2)	В		В	3 3	3				3 1
Coffee beans Coffee beverages		1922 1923	228 229	2 307 382 4 037 121	7 13	153 069 245 683	6 3) 10 3)	C C		A A	3 3	3				3 1 6 1
Other beverages	0040	1720	230	24 309 248	77	1 619 448	65 -	-	-	-				-	-	
Fruit juice Beverages which contains juice		1930 1931	231 232	2 845 001 2 372 221	9	164 646 137 634	7 3)	A C		A		3				$   5 1 \\   4 1 $
Vegetable juice		1941	232	4 269 442	14	247 612	10 3)	C		Α	3 3	3				5 1
Carbonated beverages Fermented lactic drinks, sterilized ("Calpis")		1951 1971	234 235	4 080 989 758 768	13 2	304 853 39 875	12	C C			$\begin{vmatrix} 3 & 3 \\ 3 & 3 \end{vmatrix}$	3				$\begin{array}{c c}6 & 1\\3 & 1\end{array}$
Fermented lactic drinks, unsterilized ("Yakult")		1972	236	3 038 940	10	160 144	6 3)	S		Α	3 3	3				4 1
Mineral water Sports soft drinks		1982 1981	237 238	2 625 394 4 318 493	8 14	264 977 299 707	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	A A		A A	$\begin{vmatrix} 3 \\ 3 \end{vmatrix} = 3$	3				4 2 5 1
Alcoholic beverages	0041		239	39 426 117	125	2 549 444	102 -	-	-	-		.   -	-   -	-	-	
"Sake" "Shochu", distilled spirits		2003 2011	240 241	5 927 114 6 882 829	19 22	361 450 305 496	14 12	A A			$\begin{vmatrix} 3 \\ 3 \end{vmatrix} = 3$	3				3 1 3 1
Beer		2021	242	13 376 455	42	830 948	33	A			3 3	3				5 1
Low-malt beer Whisky		2026 2033	243 244	4 185 205 1 189 713	13 4	261 762 85 539	10 3	A A			$\begin{vmatrix} 3 \\ 3 \end{vmatrix} = 3$	3				$   \begin{array}{c c}     4 & 1 \\     2 & 1   \end{array} $
Wine		2041	245	714 952	2	102 904	4 3)	C		Α	3 3	3				3 2
Wine (imported) "Chu-hi", liquor with soda & fruit		2042 2012	246 247	1 668 678 1 295 966	5 4	239 895 99 688	$\begin{array}{c c} 10 & 3 \end{array}$	C A		Α	3 3	3				$   \begin{array}{c c}     3 & 2 \\     3 & 1   \end{array} $
Beer-flavored alcoholic beverages		2027	248	4 185 205	13	261 762	10	A			3 3	3				4 1
Meals outside the home Eating out	0042 0043		249 250	168 111 926 157 873 696	532 500	15 097 275 14 546 740	603 - 581 -	-	-	-		·   -		-	-	-   -
Japanese noodles	2010	2101	251	8 416 437	27	788 500	32	В			15					3 1
Chinese noodles *"Okinawa" noodles		$\frac{2102}{2111}$	252 253	9 587 267 11 749	30 1	789 787	32	B B			15 15					$   \begin{array}{c c}     4 & 1 \\     1 & 1   \end{array} $
Spaghetti (eating out)		2112	255 254	3 236 355	10	337 653	13 3)	B		A	15					$\frac{1}{2}$ 2

					Weig	ght		Price survey							ш		
Groups • Items	Group code	Item code	Serial number	Japan Actual number	Per 10000	Ku-area of Actual number	Tokyo Survey classification Per 10000	Characteristics of items	Frequency of price survey	Period for index computation	Method of price substitution	classificati goods and grou Categorize	on of service p Reference 2	Expenses tot enucation Energy	Expenses for reading & recreation	Expenses for information & communication	Expenditure elasticity Frequency of purchases
"Sushi"-A		2123	255	5 171 169	16	581 407	23 3)	S			A	15		+		+	3 1
"Sushi"-B		2121	256	15 515 307	49	1 744 863	$\begin{bmatrix} 70 \\ 4 \end{bmatrix}$ 3)	C			Α	15					3 1
"Tendon", prawns "Tempura" on rice		2131	257 258	1 354 609 4 062 580	4 13	107 406 321 574	4 13 3)	B			А	15 15					$\begin{array}{ccc} 1 & 1 \\ 2 & 1 \end{array}$
Curry & rice		2133	259	13 199 999	42	1 044 474	42	B				15					3 1
Beef bowl		2136	260	3 723 808	12	294 562	12 3)	S			A	15					$   \begin{array}{ccc}     2 & 1 \\     2 & 1   \end{array} $
Fried prawns Fried chicken		2142 2164	261 262	1 692 867 9 814 895	5 31	133 775 776 281	$   \begin{array}{c c}     5 & 3 \\     31 & 3 \\   \end{array} $	B S			A A	15 15					$\begin{array}{ccc} 2 & 1 \\ 3 & 1 \end{array}$
"Gyoza" (eating out)		2134	263	7 320 553	23	796 861	32 3)	В			Α	15					3 2
Hamburg steaks Broiled meat		2141 2145	264 265	3 920 164	12 70	382 674 2 169 984	15 3) 87 3)	B			A	15 15					$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Lunch for children		2143	265	212 353	1	2 109 984 24 440	1 3)	B			A	15					$\begin{array}{ccc} 4 & 2 \\ 1 & 2 \end{array}$
Hamburgers		2135	267	6 937 134	22	688 169	28 3)	S			A	15					4 2
Sandwiches (eating out) Pizza		$2161 \\ 2144$	268 269	850 898 4 467 598	3 14	96 472 506 801	$     \begin{array}{c c}       4 & 3 \\       20 & 3     \end{array} $	B S			A A	15 15					$\begin{array}{c c}1&2\\2&2\end{array}$
Doughnuts		2163	270	2 978 519	9	337 653	13 3)	S			A	15					$\begin{array}{c} 2 \\ 2 \end{array}$
Coffee Desy (setting surt)		2162	271	5 616 174	18	519 021	$21 \ 1)$	B			C	15					4 1
School lunch	0044	21/1	272	10 238 230	87 32	2 104 383	84 I) 22 -	- D	-		-		_	-		-	5 2
(elementary school, lower grades)		2181	274	3 286 465	10	165 289	7	D				15		1	*		3 2
(elementary school, higher grades) (junior high school)		2182 2183	275 276	3 286 465	10 12	165 289 219 957	7 0	D				15 15		,	*		$\begin{array}{c c} 3 & 2 \\ 3 & 2 \end{array}$
Housing	0045	2105	270	670 268 861	2 122	66 142 709	2 644 -	-	-		-		-	-		-	
Rent	0046		278	588 985 146	1 865	60 378 168	2 413 -	-	-		-		-			-	
House rent, private House rent, private	0047	3000	279 280	84 334 656 84 334 656	267 267	10 701 353 10 701 353	428 - 428	- House rent	-		-	 16	-			-	2 1
House rent, public, Urban Renaissance Agency & public corporation	0048	2000	281	12 499 014	40	1 115 220	45 -	-	-		-		-	-		-	
House rent, public		3016	282	6 872 081 5 626 022	22	256 501	10	House rent				9	*				$   \begin{array}{ccc}     2 & 1 \\     2 & 1   \end{array} $
Imputed rent	0050	3017	283 284	5 626 933 492 151 476	18	858 719 48 561 595	34 1 941 -	House rent/E	_		_	9	-	-		-	2 1
Imputed rent		3030	285	492 151 476	1 558	48 561 595	1 941 -	-	-			17					
Repairs & maintenance Materials for repairs & maintenance	0051		286 287	81 283 715	257	5 764 541 2 307 616	230 -	-	-		-		-			-	
Custom bath	0052	3101	287	2 899 466	9	326 076	13 3)	S	-		Ā	6 1				-	1 1
Toilet seat with a hot douche		3103	289	2 899 466	9	326 076	13 3)	S			A	6 1					1 1
Hot-water supply equipment Custom kitchen		3104 3105	290 291	8 699 785 4 834 119	28 15	978 872 544 104	39 3) 22 3)	S S			A A						$\begin{array}{ccc} 1 & 1 \\ 1 & 1 \end{array}$
Board		3121	292	1 411 202	4	52 738	2 3)	S			A	6 2					$     \begin{array}{ccc}       1 & 1 \\       2 & 1     \end{array} $
Paint		3143	293 204	1 058 517	3	39 875 20 875	$\begin{pmatrix} 2 & 3 \\ 2 & 2 \end{pmatrix}$	S			A	6 3					$   \begin{array}{ccc}     2 & 1 \\     2 & 1   \end{array} $
Locks Service charges for repairs & maintenance	0053	3124	294 295	1 058 517 58 422 643	3 185	39 875 3 456 925	138 -	-	-		A -	6 2	-	-		-	2 1
"Tatami", reupholstering		3151	296	1 083 813	3	39 875	2	S				18					1 1
Plumbing		3176 3173	297	7 564 326	24	514 519	21	S			^	18					$     \begin{array}{ccc}       1 & 1 \\       1 & 1     \end{array} $
Fence construction		3175	298	12 062 322	38	618 066	25 2)	S			B	18					$\begin{array}{ccc} 1 & 1 \\ 1 & 1 \end{array}$
Gardening		3174	300	2 805 282	9	177 509	7 3)	S			A	18					1 2
Sheet glass replacement "Fusuma", sliding doors reupholstering		3161 3171	301 302	3 074 397 3 074 397	10 10	120 912 120 912	5 2) 5 2)	S S			B	18 18					$\begin{array}{ccc} 1 & 1 \\ 1 & 1 \end{array}$
Carpentering		3172	303	3 074 397	10	120 912	5	Š				18					1 1
Installing air conditioner		3177	304	6 148 902 15 512 274	19 40	242 467	10 3)	B			Α	18	*				$   \begin{array}{cccc}     1 & 1 \\     2 & 1   \end{array} $
Fuel, light & water charges	0054	5160	305 306	222 477 832	49 704	1 295 945	587 -	- -	-		-		-	-		-	2 I 
Electricity	0056		307	99 967 498	317	6 599 993	264 -	-	-		-		-			-	
Gas	0057	3500	308 309	99 967 498 55 714 670	317 176	6 599 993 4 162 459	264 166 -	E -	_		_	7 3	*	*		_	5 1
Gas, manufactured & piped		3600	310	30 260 907	96	4 037 045	161	Е				7 3	*	*			4 1
Liquefied propane Other fuel & light	0058	3612	311	25 453 763 15 764 004	81 50	125 414 180 725	5	S				5 3		*			3 1
Kerosene	0058	3701	312	15 764 004	50	180 725	7 - 7	S	-		-	5 3	; –	*		-	4 1
Water & sewerage charges	0059	2010	314	51 031 660	162	3 752 130	150 -	-	-		-		-	_		-	
Water charges Sewerage charges		3810 4610	315 316	31 520 698 19 510 962	100 62	2 026 150 1 725 980	81 69	D D				10 3	*				$\begin{array}{c c} 4 & 1 \\ 4 & 1 \end{array}$
Furniture & household utensils	0060		317	109 055 487	345	7 439 946	297 -	-	-		-		-	-		-	
Household durable goods	0061		318	38 125 359	121	2 455 542 1 234 845	98 - 49	-	-		-		-	- ·		-	
Microwave ovens	0002	4003	320	1 305 873	4	92 613	49 - 4 3)	C	-		Ā	6 1	. –			-	1 2
Electric rice-cookers		4002	321	2 522 198	8	168 505	7 2)	В			В	6 1					1 1
Electric pots Gas cooking tables		4005 4011	322	630 408 1 970 339	2	42 448 55 311	$     \begin{array}{c c}       2 & 3 \\       2 & 2 \\       \end{array} $	B C			A B						$\begin{array}{ccc} 1 & 1 \\ 1 & 2 \end{array}$
Refrigerators		4021	324	6 716 581	21	416 117	17 2)	B			B	6 1					1 1
Vacuum cleaners Washing machines		4032	325 326	1 883 493	6	158 858	6 2) 7 2)	B			B	6 1					$\begin{array}{c c}1&2\\1&2\end{array}$
Washing & Drying machines		4042 4043	320 327	2 513 956 1 541 960	5	174 293	7 2) 5 2)	В			Б В	6 1					$\begin{array}{ccc} 1 & 2 \\ 1 & 2 \end{array}$
Electric irons		4052	328	243 458	1	10 290	1 2)	В			В	6 1					1 2
Hea Boom air conditioners	0063	4063	329 330	13 807 063 11 292 668	44 36	910 699 837 380	36 - 33 21	- R	-		- R	 6 1	-	-   ·	-   -	-	 1 2
Fan heaters		4072	331	2 111 757	50	54 025		B		JanMar.,OctDec	. A	6 1					1 2 1 2
Electric carpets	0051	4074	332	402 638	1	19 294	1 3	C		JanMar.,OctDec	. A	6 1					1 1
Chests of drawers	0064	4081	333 334	5 190 030 1 459 473	16	309 998 140 850	12 - 6 3)	S	-		Ā	 6 1		-   -	-   -	-	$\begin{array}{c c} - & - \\ 1 & 2 \end{array}$
Dining sets		4092	335	2 629 512	8	99 688	4 3)	S			A	6 1					$1  \overline{2}$
Kitchen cabinets	0066	4083	336 337	1 101 045	3	69 460	3 3)	S			Α	6 1					1 2
Clocks	0000	4101	338	7 480 339 728 674	24	447 031 30 871	18 - 1 1)	C	-		C	6 1		-   ·		-	
Lighting apparatus		4115	339	1 364 464	4	87 468	3 1)	В			C	6 1					1 2

					Wei	ght			Price survey								ш _		
Groups • Items	Group code	Item code	Serial number	Japan Actual number	Per 10000	Ku-area of Actual number	Tokyo Per 10000	Survey classification	Characteristics of items	Frequency of price survey	Period for index computation	Method of price substitution	classifica goods an grd Categoriize	tion of diservice pup Reference2	Energy	Expenses for education	Expenses for information & communication 3 xnenses for reading & recreation	Frequency of purchases	Expenditure elasticity
Cornate		4121	340	3 421 652	11	174 293	7	7 3)	S				6	1	—	+		1	1
Curpets Curtains		4121 4141	540 341	5 421 652 1 965 549	11 6	174 293 154 999	6	5 3)	B			A A	4	2				1	$\frac{1}{2}$
Bedding	0070		342	7 435 207	24	427 694	17	7 -	-	-		-	_		-	-			-
Beds		4201	343	1 697 415	5	55 311	2	2 3)	S			А	6	l				1	1
Quilts Blankets		4211 4231	344 345	3 422 291	11	225 102	9	$\frac{9}{1}$ (2)	B	1	Ian Mar Oct Dec	B	4	2				1	2
Sheets		4251	346	917 897	3	64 958	3	3 2)	B	1	JanIviar.,OctDec	B	4	2				1	2
Quilt covers		4271	347	796 695	3	60 456	2	2 2)	В			В	4	2				1	2
Domestic utensils Tableware	0073		348 349	22 172 244	70 14	1 812 396	72 18	2 -	-	-		-	_		-	-			-
Rice bowls	0074	4301	350	1 239 471	4	136 348	5	5	В				6	2				1	2
Dishes		4302	351	1 239 471	4	136 348	5	5	B				6	2				1	2
Coffee cups & saucers		4325 4322	352 353	619 917 632 245	2	68 174 50 809	3	3 3)	C B			A	6	$\frac{2}{2}$				1	$\frac{2}{2}$
Wine glasses		4324	354	632 245	2	50 809	2	2 3)	C			Α	6	2				1	$\frac{2}{2}$
Kitchen utensils	0075	1000	355	5 505 493	17	376 886	15	5 -	-	-		-	-		-	-		·   -	-
Sealed kitchenware Pans		4323 4331	356 357	632 245 2 135 484	2	50 809 142 136	2	2 2)	B			В	6	2				1	$\frac{2}{2}$
Frying pans		4334	358	2 135 484	, 7	142 136	6	5 3)	B			Α	6	2				1	2
Scrubbing brushes	0076	4342	359	602 280	2	41 805	2	2 1)	А			С	6	2				2	1
Other domestic utensils Fluorescent lamps	0076	4352	360 361	12 303 402 3 291 499	39 10	993 022 235 392	40	) - ) 1)	- C	-		- C	- 6		-	-		- 2	-
Towels		4361	362	3 592 572	11	332 508	13	3	B			C	4	2				3	2
Vinyl hose		4392	363	1 354 354	4	106 120	4	4 3)	C			A	6	2				2	1
Clean water equipment Matting		4394 4362	364 365	1 354 354 2 710 623	4	106 120 212 882	4	+ 3) 9 3)	C B			A A	6 1 6	2				$\frac{2}{3}$	1
Domestic non-durable goods	0077	4502	366	24 048 248	76	1 637 456	65	5 -	-	-		-	-		-	-			-
Facial tissue & rolled toilet paper	0078		367	5 941 899	19	430 267	17	7 -	-	-		-	-		-	-		·   -	-
Facial tissue Rolled toilet paper		4412 4413	368 369	2 341 608 3 600 291	7	179 439 250 828	7 10	7	A A				6 : 6	3				4	1
Detergent	0079	4415	370	7 838 902	25	519 665	21	í -	-	-		-	-		-	-			-
Liquid detergent, kitchen		4431	371	3 166 311	10	232 177	9	)	A				6	3				5	1
Detergent, laundry Other non-durable goods	0080	4441	372 373	4 672 591 10 267 447	15 33	287 488 687 524	11 27	l 7 _	A	_			6	3				5	1
Food wrap	0000	4401	374	1 468 824	5	81 680	3	3 1)	A			С	6	3				4	1
Plastic bags		4402	375	2 203 792	7	122 198	5	5 3)	C			Α	6	3				5	1
Insecticide Moth repellent for clothes		4451 4461	376 377	$2\ 166\ 818$ 542\ 104	7	144 708	6	5	C C			Δ	6	3				3	1
Fabric softener		4442	378	1 295 303	4	100 974	4	4 3)	A			A	6	3				3	1
Fragrance		4471	379	1 295 303	4	100 974	4	4 3)	С			Α	6	3				3	1
Kitchen rolls	0081	4403	380 381	1 295 303	4	100 974	4	4 3)	A			Α	6	3				3	1
Domestic help	0174		382	1 568 387	5	422 549	17	7 -	_	-		-	_		_	_			-
Domestic help	0177	4501	383	1 568 387	5	422 549	17	7 2')	D			С	18					1	2
Cleaning fees Charges for treatment of human waste	0175	4510	384 385	3 959 836 1 265 593	13 4	36 659	1	l -	- D	-		-	-		-	-		1	-
Recycle fees		4521	386	2 694 243	9	36 659	1	l l	E			0	10	*				1	1
Other domestic services	0176	1701	387	4 265 867	14	200 019	8	3 -	-	-		-	-		-	-		·   -	-
Charges for mop-rental Clothes & footwear	0082	4701	388 389	4 265 867 127 975 371	14 405	200 019	8 462	s 3) 2 -	-	-		A -	18		_	-		. 2	-
Clothes	0083		390	56 698 422	180	5 428 175	217	7 -	-	-		-	-		-	-		· _	-
Japanese clothing	0084	5011	391 202	2 697 210	9	104 190	4	4 -	- D	-		-	-		-	-			-
Women's "Obi"		5011 5041	392 393	746 077	2	12 220	4	+ 3) l 3)	В			A A	4	2				1	$\frac{2}{2}$
Clothing	0085	_	394	54 001 212	171	5 323 985	213	3 -	-	-		-	-	-   -	-	-		·   -	-
Men's clothing	0086	5101	395 396	16 735 395	53	1 706 273	68	3 -	- C	- ,	Mor Aug	-	-		-	-		·   -	- 2
Men's suits (for summer, ordinary)		5101	390 397	1 716 864	5	182 654	7	7 3)	B	1	MarAug.	A	4	2				1	$\frac{2}{2}$
Men's suits (for winter, medium)		5102	398	1 716 864	5	182 654	7	7 3)	С	J	JanFeb.,SepDec.	Α	4	2				1	2
Men's suits (for winter, ordinary) Men's jackets		5104 5111	399 400	1 372 819	4	145 995 326 076	6 13	5 3)	B	]	JanFeb.,SepDec.	A	4	2				1	$\frac{2}{2}$
Men's slacks (for summer)		5122	400	1 700 350	o 5	133 132	5	5 2)	B	I	MarAug.	B	4	2				2	$\frac{2}{2}$
Men's slacks (for winter)		5121	402	1 700 350	5	133 132	5	5 2)	В	J	JanFeb.,SepDec.	В	4	2				2	2
Men's slacks (jeans) Men's coats		5123 5131	403 404	850 984 1 608 687	3	66 887 176 866	3	3 3)	B	1	Ian Nov Dec	A	4	2				1	$\frac{2}{2}$
Boys' school uniforms		5141	404	1 569 383	5	139 563	6	5 3)	В	J	JanMar.	AA	4	2		*		1	$\frac{2}{2}$
Women's clothing	0087		406	29 836 442	94	2 946 265	118	3 -	-	-		-	-		-	-		· _	-
Women's suits (for spring & summer, medium) Women's suits (for spring & summer, ordinary)		5166 5167	407 408	2 403 159	8	259 832 103 547	10 4	) 3) 1 3)	C B	1	MarAug. Mar - Aug	A A	4	2				1	$\frac{2}{2}$
Women's suits (for autumn & winter, medium)		5162	409	2 403 159	8	259 832	10	) 3)	C	J	JanFeb.,SepDec.	A	4	2				1	$\frac{2}{2}$
Women's suits (for autumn & winter, ordinary)		5168	410	961 148	3	103 547	4	4 3)	B	]	JanFeb.,SepDec.	A	4	2				1	2
One-piece dresses (for spring & summer) One-piece dresses (for autumn & winter)		5161 5163	411 412	$1\ 441\ 770$ $1\ 441\ 770$	5	155 642 155 642	6	5 3) 5 3)	B	1	MarAug. Ian -Feb Sen -Dec	A A	4	2				1	$\frac{2}{2}$
Women's jackets		5183	413	4 658 890	15	445 702	18	3 3)	B	J	JanMar.,SepDec	. A	4	2				1	$\frac{1}{2}$
Skirts (for spring & summer)		5169	414	1 148 545	4	124 128	5	5 2)	B	l	MarAug.	B	4	2				1	2
SKIFTS (Tor autumn & winter) Women's slacks (for winter)		5172 5181	415 416	1 148 545 3 777 542	4	124 128 290 060	5 12	$\frac{2}{2}$ (2)	B	]	JanFeb.,SepDec. JanFeb. Sep -Dec	B A	4	$\frac{2}{2}$				1	2
Women's slacks (jeans)		5179	417	3 777 542	12	290 060	12	2 3)	B		лан. т со.,верDec.	A	4	2				$\frac{2}{2}$	2
Women's coats		5182	418	4 027 165	13	514 519	21	l 3)	B	J	Jan.,NovDec.	A	4	2		-		1	2
Children's clothing	0088	5184	419 420	1 686 059 7 429 375	5 24	119 626 671 447	5 77	5 3) 7 -	- B	_	JanMar.	A -	4		_	* -		.   _	2
Boys' short pants		5191	421	3 215 365	10	294 562	12	2 2)	В			В	4	2				2	2
Girls' skirts		5192	422	3 215 365	10	294 562	12	2 2)	B			B	4	2				2	2
Badies clothes		5193	423	998 645	3	82 323	3	5)	В			А	4	2				1	

					Weig	ght			Price survey							ម្ព	ш		
Groups • Items	Group c	Item co	Serial nu	Japan		Ku-area o	f Tokyo	Survey cl	Characteris	Frequency of	Period for index	Method of price	assificatio oods and s group	n of ervice	Energy	xpenses for readi	enses for informatic	Frequency of	Expenditure
	ode	ode	mber	Actual number	Per 10000	Actual number	Per 10000	assification	stics of items	of price survey	computation	substitution	Reference 1	Reference2	еписанон	ng & recreation	n & communication	purchases	elasticity
Shirts, sweaters & underwear	0089		424	37 076 380 25 479 865	117 81	2 980 997	119 87	-	-	-		-		-	-		-	-	-
Men's shirts & sweaters	0090		425	7 794 825	25	629 643	25	-	-	-		-		-	-		-	-	-
Men's business shirts (long sleeves)		5202	427	1 582 870	5	177 509	7	2)	B				$\begin{array}{c c} 4 & 2 \\ 4 & 2 \end{array}$					1	2
Sport shirts (long sleeves)		5203 5211	428 429	678 129 1 566 280	2 5	75 892 101 618	3 4	3) 3)	В В		May-Aug. JanMar.,SepDec	A A	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					1	$\frac{2}{2}$
Sport shirts (short sleeves)		5212	430	2 350 389	7	152 426	6	3)	В		AprAug.	Α	4 2					2	2
Men's sweaters Women's shirts & sweaters	0092	5221	431 432	1 617 157 15 523 172	5 49	122 198 1 387 272	5 55	2)	B -		lanMar.,SepDec	2. B	4 2	_	_		_	1	2
Blouses (long sleeves)		5231	433	1 592 561	5	146 638	6	3)	В		lanMar.,SepDec	c. A	4 2					2	2
Blouses (short sleeves) Women's T-shirts (long sleeves)		5232 5233	434 435	1 592 561 2 932 731	5	146 638 216 741	6	3) 3)	B B		AprAug. Ian -Mar-Sep -Dec		$\begin{array}{c cc} 4 & 2 \\ 4 & 2 \end{array}$					2	$\frac{2}{2}$
Women's T-shirts (short sleeves)		5234	436	4 398 415	14	324 790	13	3)	B		AprAug.	A	4 2					3	2
Women's sweaters (long sleeves) Women's sweaters (short sleeves)		5241 5242	437 438	4 004 720	13	441 843	18 4	2) 2)	B B		anMar.,SepDec	B B	$\begin{array}{c c} 4 & 2 \\ 4 & 2 \end{array}$					$\begin{array}{c} 2\\ 2 \end{array}$	$\frac{2}{2}$
Children's shirts & sweaters	0093	5242	439	2 161 868	7	171 078	7	-	-	-	ipi/iug.	-		-	-		-	-	-
Children's T-shirts (long sleeves) Children's T-shirts (short sleeves)		5243 5244	440 441	1 080 934 1 080 934	3	85 539 85 539	3	3) 3)	B B		anMar.,SepDec	$\begin{array}{c c} A \\ A \end{array}$	$\begin{array}{c c} 4 & 2 \\ 4 & 2 \end{array}$					3	$\begin{pmatrix} 2\\ 2 \end{pmatrix}$
Underwear	0094	52-7-7	442	11 596 515	37	793 004	32	-	-	-	-pr. / 105.	-		-	-		-	-	-
Men's undershirts	0095	5301	443 444	3 806 902	12	233 464	9 4	-	- R	-		-		-	-		-	- 2	-
Men's underpants		5311	445	1 460 296	5	93 900 93 900	4		B				4 2					2	1
Men's pajamas Women's underweer	0006	5331	446 447	886 310 6 457 764	3	45 664 461 781	2	3)	В		lanMay,SepDec	. A	4 2					1	1
Brassieres	0090	5341	447	1 022 912	20	63 029	3	3)	В	-		Ā	4 2	-	-		-	1	2
Panties		5351	449	2 717 426	9	199 376	8	3)	B			A	$\begin{array}{c c} 4 & 2 \\ 4 & 2 \end{array}$					2	2
Children's underwear	0097	5301	450 451	2 717 426 1 331 849	9 4	97 759	8	3) -	- Б	-		A -	4 2	-	-		-	2	-
Children's undershirts	0000	5372	452	1 331 849	4	97 759	4		В				4 2					2	2
Footwear Men's shoes	0098	5601	453 454	15 517 761 3 279 361	49 10	1 403 993 333 151	56 13	-1)	Ċ	-		C	6 2	-			-	2	2
Women's shoes		5611	455	6 329 242	20	688 169	28	1)	С			С	6 2					2	2
Children's shoes Canyas shoes		5641 5631	456 457	1 022 479 3 492 425	3 11	65 601 241 824	3 10	1) 1)	C C			C C	$\begin{array}{c c}6 & 2\\6 & 2\end{array}$					$\frac{2}{2}$	$\frac{2}{2}$
Sandals		5671	458	705 939	2	32 157	1	1)	C			C	6 2					2	1
Slippers Other clothing	0103	5652	459 460	688 315 10 307 727	2	43 091 846 384	2 34	3)	C	_		A	6 2	_	_		_	2	1
Hats & caps	0105	5501	461	1 693 981	5	136 348	5	1)	С			С	4 2					2	1
Neckties Mufflers		5511 5572	462 463	774 121 1 488 848	2	87 468 159 501	3	3) 3)	B B		an -Feb Oct -Dec	A	$ \begin{array}{c cc} 4 & 2 \\ 4 & 2 \end{array} $					1	2
Men's socks		5521	464	2 263 432	5 7	155 642	6	5)	B		un. 100,000. D00.		4 2					3	2
Women's stockings Women's socks		5531 5541	465 466	823 696 2 471 556	3	74 605 169 791	3	1)	B B			С	$\begin{array}{c c} 4 & 2 \\ 4 & 2 \end{array}$					2	$\frac{2}{2}$
Belts		5571	467	792 093	3	63 029	3	3)	B			А	6 2					2	2
Services related to clothing Laundry charges (men's business shirts)	0106	5711	468 $469$	8 375 081 3 381 471	27 11	891 405 374 956	36 15	-	- A	-		-		-			-	- 4	- 2
Dry cleaning charges (men's suits)		5712	470	3 381 471	11	374 956	15		A			1	8					4	$\frac{2}{2}$
Footwear repair charges Charges for clothing rept		5721 5731	471 472	632 734 979 405	2	90 041 51 452	4	1) 3)	S S			$\begin{bmatrix} \mathbf{C} & 1 \\ \mathbf{A} & 2 \end{bmatrix}$	8					1	$\frac{2}{2}$
Medical care	0107	5751	473	135 270 948	428	10 716 146	428	-	-	-		-		-	-		-	-	-
Medicines & health fortification Medicines for cold	0108	6001	474 475	40 885 968 3 601 936	129 11	2 775 830 224 459	111	-	- B	-		-	 6 3	-			-	- 2	-
Antipyretic & analgesic medicines		6002	476	1 542 889	5	95 829	4		B				6 3					1	1
Gastrointestinal medicines Vitamin preparations-A		6012 6021	477 478	2 959 605 1 389 009	9 4	212 882	9 4	2)	B B			в	6 3 6 3					2	1
Vitamin preparations-B		6022	479	1 389 009	4	91 327	4	2)	B			B	6 3					1	1
Health drinks Dermal medicines		6031 6051	480 481	8 805 422 1 625 871	28 5	577 548 101 618	23	1)	B B			C	6 3 6 3					3	1
Plasters		6061	482	1 826 674	6	144 708	6		B				6 3					2	1
Eyewashes Chinese medicines		6062 6091	483 484	1 826 674 2 247 994	6 7	144 708 149 211	6	3) 3)	B B			A A	6 3 6 3					2	1 1
Medicines for rhinitis		6003	485	2 247 994	, 7	149 211	6	3)	B			А	6 3					1	1
Supplements Medical supplies & appliances	0109	6090	486 487	11 422 891 24 165 360	36 77	793 002 1 879 282	32 75	_	E -	_		0	6 3	_	_		_	2	1 -
Disposable diapers (for babies)	0107	6141	488	1 882 221	6	136 348	5	2)	А			В	6 3					2	1
Disposable diapers (for adults) Sanitary napkins		6142 6101	489 490	1 882 221 3 276 093	6 10	136 348 219 957	5	3)	A A			A	6 3 6 3					2 4	1
Bath preparation		6095	491	1 638 398	5	109 978	4	3)	В			А	6 3					3	1
Contact lenses cleaning solution Spectacles		6181 6121	492 493	1 638 398 6 439 107	5 20	109 978 588 481	4 24	3) 3)	C B			A A	6 3 6 1					3	$\frac{1}{2}$
Contact lenses		6161	494	3 185 141	10	305 496	12	3)	S			A	6 1					1	$\frac{2}{2}$
Bathroom scales Thermometers		4393 6131	495 496	844 755 2 111 946	3	54 668 136 349	2 5	3) 1)	S C			A C	$   \begin{array}{c c}     6 & 2 \\     6 & 2   \end{array} $					1	1 1
Sphygmomanometers		6171	497	1 267 080	4	81 680	3	3)	S			A	6 2					1	1
Medical services	0110	6200	498 499	70 219 620	222	6 061 034 5 118 179	242	-	- F	-			-   -	- *	-		-	-	-
Delivery fees in national hospital		6210	500	1 095 006	3	252 114	10		D			N 1	9					1	1
Charges for massage Fees for complete medical checkup		6221	501 502	3 234 445	10	422 549	17	3) 3)	S				9					3	$\frac{2}{2}$
Fees for vaccination		6223	502	1 312 271	8 4	89 398	4	3)	D		an.,OctDec.	A 1	9					1	2
Transportation & communication Public transportation	0111		504 505	448 665 375	1 421	24 880 857	995 305	-	-	-		-	-   -	-	-	-   -	-	-	-
Railway fares (JR)	5112	7026	506	23 532 811	75	2 812 670	112	-	-	-		-	-   -	-	-		-	-	-
(ordinary fares) (special fares, excluding "Shinkansen")		7527 7528	507 508	10 078 493 2 566 761	32 8	1 121 152 251 687	45 10		E E			D 1 P 1	2	*		*		5 2	2 2

					Weig	ght			Price survey							Ещ		
Groups • Items	Group c	Item cc	Serial nu	Japan		Ku-area of	f Tokyo	Survey cl	Characteris	Frequency o	Period for index computation	Method of price	lassificatio goods and grou	on of service p	Expenses for e Energy	Expenses for informatio	Frequency of	Expenditure 6
	ode	de	mber	Actual number	Per 10000	Actual number	Per 10000	assification	tics of items	f price survey	·	substitution	Reference1	Reference2	oducation	n & communication g & recreation	purchases	lasticity
(special fares, for "Shinkansen") (students' season tickets)		7530 7029	509 510	5 050 586 1 701 934	16 5	617 778 205 425	25		E E			Q D	12 12	*	*	*	3	2 2
(commuters' season tickets)		7030	511	4 135 037	13	616 628	25		Е			D	12	*			2	2
Railway fares (excluding JR) (ordinary fares)		7007 7008	512 513	$\begin{array}{r} 14 \ 108 \ 198 \\ 7 \ 473 \ 703 \end{array}$	45 24	1 870 096 869 465	75	-	- E	-		- E		- *		*	- 5	-2
(students' season tickets)		7009	514	1 579 258	5	202 975	8		E			E	12	*	*		1	2
(commuters' season tickets) Fixed route bus fares		7010 7050	515 516	5 055 237 5 867 331	16 19	797 656 353 089	32 14	1)	E D				12 12	*		*	2	2
Expressway bus fares		7057	517	1 466 427	5	88 111	4		D			N	12	*		*	2	2
Taxi fares Airplane fares		7060 7070	518 519	5 773 221 6 997 065	18 22	792 359 1 087 565	32 43		D E			0	12 12	*		*	3	$\frac{2}{2}$
Expressway tolls charges		7360	520	8 587 342	27	614 208	25	-	-	-		-		-			-	-
National expressway tolls City expressway tolls		7363 7364	521 522	6 482 846 2 104 496	21 7	460 495 153 713	18		E E				12 12	*			3	$\frac{2}{2}$
Private transportation	0113		523	258 833 545	820	9 108 274	364	-	-	-		-		-			-	-
Automobiles (less than 660cc)	0114	7105	524 525	56 039 140 11 207 370	177 35	582 694 116 410	23	-	- E	-		- 0	 6 1	-			- 1	-2
(more than 660cc, but less than 1,500cc)		7106	526	14 007 925	44	145 352	6		E			0	6 1				1	2
(more than 1,500cc, but less than 2,000cc) (less than 2,000cc(imported))		7107	527 528	5 605 151 1 402 453	18	58 527 14 792	2		E			0	6 1 6 1				1	$\frac{2}{2}$
(more than 2,000cc)		7113	529	18 211 090	58	189 086	8		E			0	6 1				1	2
(more than 2,000cc (imported)) Bicycles	0115	/115	530 531	5 605 151 2 596 471	18	58 527 227 675	9	_	E -	-		-	6 I 	-			-	2 -
Bicycles	0116	7201	532	2 596 471	8	227 675	9	1)	S			С	6 1				1	2
Gasoline	0116	7301	535 534	200 197 934 72 299 743	634 229	8 297 905 1 989 259	552 80	-	S	-		-	5 3	-	*		6	- 1
Tires		7311	535 526	9 060 640 2 264 287	29	180 082	7	3)	S			A	$\begin{array}{c c} 6 & 2 \\ \hline 6 & 2 \end{array}$				2	2
Car wax		7312	536 537	2 264 287 910 329	3	45 020 22 510	1	3)	S			A A	6 2 6 3				1	$\frac{2}{2}$
Automobile navigation		7313	538	5 462 109	17	135 704	5	3)	S			A	$   \begin{array}{c}     6 & 2 \\     6 & 2   \end{array} $				2	2
Regular inspection		7314 7331	539 540	10 283 861	3 33	463 067	1 19	3) 3)	S			A A	6 2 18				1 2	$\frac{2}{2}$
Puncture repairs Motor oil replacement		7335 7341	541 542	5 998 623 2 677 401	19	270 123	11	3)	S			A	18				1	2
Charges for garage rental		7341	543	20 264 811	64	2 359 713	94	2)	S			B	18				3	2
Charges for parking Charges for driving license		7343 7351	544 545	2 516 408 771 433	8	279 770 32 157	11	3) 3)	S				18 10	*			3	2
Charges for rental car		7344	546	1 241 782	4	117 053	5	5)	E			0 2	21				1	2
Car wash fees Automotive insurance premium (compulsion)		7347 7370	547 548	1 928 092 10 634 940	6 34	80 394 293 919	3 12	3)	S E			A G	18 10	*			2	2 1
Automotive insurance premium (option)	0117	7390	549	52 973 146	168	1 923 015	77		Е			0	10	*			3	1
Communication Postcards	0117	7401	550 551	123 499 435 1 014 493	391 3	8 154 485 88 755	326	-	- E	-		- 0		- *			- 2	- 1
Letters Talachana akanag		7402	552	2 611 662	8	228 961	9		E			0	12	*		4	3	1
Mobile telephone charges		7410 7430	555 554	29 383 331 67 934 336	215	4 438 370	172		E			0	21			*	4	2
Forwarding charges		7433 7441	555 556	4 680 995	15	417 404	17	3)	S			A	12	*			4	1
Cellular phones		7441 7446	557	16 984 185	54	1 109 432	44	3)	S			A	6 1				3	2
Education School fees	0118 0119		558 559	105 619 069 72 064 482	334 228	11 878 317 7 668 266	475 307	-	-	-		-		-			-	-
PTA membership fees (elementary school)	0117	8001	560	5 703 276	18	1 118 436	45		D			2	20		*		3	2
PTA membership fees (junior high school) Junior high school fees, private		8002 8010	561 562	5 453 363 4 022 207	17 13	212 882 957 649	9 38		D D			H 2	20 20		*		2	$\frac{2}{2}$
High school fees, public		8020	563	2 130 230	7	59 813	2		D			I	13	*	*		2	2
Fign school tees, private College & university fees, national		8030 8040	564 565	4 991 497 3 951 740	16 13	587 195 149 211	23		D			J N	20 13	*	*		1	2
College & university fees, private		8060 8070	566 567	30 723 179	97 -	3 355 951	134		D			K	20		*		1	2
Kindergarten fees, public		8080	568	825 336	3	17 319	1		D				13	*	*		1	$\frac{2}{2}$
Kindergarten fees, private Vocational school fees		8090 8077	569 570	7 409 418 5 237 147	23 17	507 491 525 453	20 21		D D			M	20 20		*		2	2
School textbooks & reference books for study	0120	0077	571	2 856 923	9	308 068	12	-	-	-		-		-			-	-
School textbooks Reference books for study		8110 8100	572 573	1 310 973 1 545 950	4	96 472 211 596	4		E E			0 0	8 3 8 3	*	*		1	$\frac{2}{2}$
Tutorial fees	0121	0000	574	30 697 664	97 21	3 901 983	156	-	-	-		-		-			-	-
(junior high school)		8203 8201	575 576	9 826 783 12 513 216	31 40	1 648 390 1 099 784	66 44	3)	D			A A	20		*		2	$\frac{2}{2}$
(high school & preparatory school)	0122	8204	577 579	8 357 665	26	1 153 809	46		D			N 2	20		*		1	2
Recreational durable goods	0122		578	53 953 767	1 145	3 861 466	1 183	-	-	-		-		-			-	-
TV sets Mobile audio players		9013 9033	580 581	30 557 016	97 2	1 958 388 72 676	78	3) 3)	B			A A	$   \begin{array}{c c}     6 & 1 \\     6 & 1   \end{array} $			*	1	$\frac{1}{2}$
Electronic dictionaries		9082	582	1 427 629	5	172 364	7	3)	B			A	6 1			*	1	2
Video recorders Personal computers (desktop)		9034 9078	583 584	4 109 028 3 181 369	13 10	349 873 225 745	14 9	3)	B POS			A O	6 1 6 1			*	1	2 2
Personal computers (notes)		9079	585	6 362 711	20	452 134	18		POS			0	6 1			*	1	2
PC Printers Cameras		9081 9043	586 587	1 060 597 2 243 601	3 7	75 248 202 592	3	3)	S POS			A O	6 1 6 1			*	1	2 2
Video cameras		9042	588	1 050 617	3	162 074	6	3)	В			A	6 1			*	1	2
Pianos Desks		9051 9061	589 590	2 380 142 913 452	8	154 356 36 016	6	3)	E S	J	anFeb.,Dec.	O A	6 1 6 1		*	*	1	$\frac{2}{2}$
Recreational goods	0128		591	68 666 913	217	4 721 357	189	-	-	-	.,	-	-   -	-	-   -		-	-
Stationery Ball-point pens	0129	9111	592 593	7 087 127 839 584	22 3	593 627 57 240	24	- 3)	C	-		Ā	 6 <u>3</u>	-		-   -	-3	- 2

					Weig	ght			Price survey							п	-	
Groups • Items	Group c	Item cc	Serial nu	Japan		Ku-area o	f Tokyo	Survey cl	Characteris	Frequency c	Period for index	Method of price	sificatio ods and s group	n of service	Expenses for Energy	Expenses for information Expenses for reading	Frequency of	Expenditure
	ode	ode	mber	Actual number	Per 10000	Actual number	Per 10000	assification	tics of items	f price survey		Categorize substitution	Reference 1	Reference2	education	n & communication ng & recreation	purchases	elasticity
Marking pens Notebooks		9115 9121	594 595	559 698 1 848 016	2	38 589 159 501	2	3)	C C			A 6	3		*		2	2
Papers for office automation		9127	596	1 848 016	6	159 501	6	3)	C			A 6	3				3	1
Cellophane adhesive tape		9124	597	569 159	2	46 950	2	3)	C	T		A 6	3		*		3	2
Sporting goods	0130	9125	598 599	1 422 654 15 460 827	5 49	1 1 1 3 1 8 4 6	5 45	2) -	-	- J	anFeb.,Dec.	B 0	-	_				2
Golf clubs		9142	600	1 448 557	5	128 630	5	3)	С			A 6	2			*	1	2
Baseball gloves Tennis rackets		9141 9143	601 602	250 500 250 500	1	13 506 13 506	1	2)	S C			B 6	2			*	1	2
Fishing rods		9144	603	1 751 923	6	92 613	4	3)	s			A 6	2			*	1	2
Pants for exercise		9145 0140	604	9 146 389	29	687 526	27	3)	S			A 4	2			*	3	2
Toys	0131	9149	605 606	2 612 958 8 313 865	8 26	196 160 581 406	8 23	3) -	-	_		A 4 	-	-				2 -
TV games (stationary)		9154	607	706 463	2	44 377	2	3)	В			A 6	2			*	1	2
TV games (portable) Game software		9155 9156	608 609	706 463 2 008 140	2	44 377	25	3) 3)	B			A 6 A 6	$2 \\ 2$			*	1	$\frac{2}{2}$
Dolls		9151	610	978 597	3	73 319	3	3)	C			A 6	3			*	2	1
Toy cars Building blocks		9152 9153	611 612	1 957 101 1 957 101	6	145 995 145 995	6	3) 3)	C C			A 6 A 6	3			*	2	1
Cut flowers	0132		613	10 481 940	33	717 755	29	-	-	-			-	-	-   -			-
(Carnations)		9181 0182	614 615	2 621 194	8	179 439	7	3) 2)	A	*		A 1	3			*	3	1
(Roses)		9182 9183	616	5 259 552 2 621 194	17	558 877 179 439	14	3)	A	*		A 1 A 1	3 3			*	43	1 1
Other recreational goods	0133	0109	617	27 323 154	87	1 696 628	68	-	-	-			-	-				-
Memory cards		9198 9199	618 619	757 336 504 383	2	39 170	2	3) 3)	s			A 0 A 6	2			*	1	$\frac{2}{2}$
Compact discs		9172 0174	620	2 267 294	7	231 534	9	2)	E			06	2			*	2	2
Pet foods (dog foods)		9174 9193	621 622	4 927 425	5 16	337 653	13	3)	S			A 0 A 6	2 3			*	3	2 1
Pet foods (cat foods)		9196 0101	623	3 696 432	12	253 401	10	3)	S			A 6	3			*	3	1
Gardening earth		9191 9190	624 625	2 843 208	9	93 257	4	3) 3)	S			A 6	3			*	3	1
Horticultural fertilizer		9189	626	4 738 767	15	154 999	6	3)	S			A 6	3			*	4	1
Dry batteries Ink cartridges for printer		9195 9128	627 628	1 789 295 2 392 946	6	133 775	5	3)	C			A 6	3			*	2	$\frac{1}{2}$
Books & other reading materials	0134		629	44 733 243	142	3 555 969	142	-	-	-			-	-			· _	-
Newspapers Newspapers	0135	9200	630 631	30 337 359 30 337 359	96 96	2 211 145 2 211 145	88 88	-	-	-			-	-				-
(local·block)		9204	632	12 671 123	40	110 557	4		D			8	3			*	5	1
(national) Magazines	0136	9205	633 634	17 666 236 4 719 863	56 15	2 100 588 367 238	84	_	E -	_		0 8	3	_		*	- 5 	1 -
Monthly magazines		9226	635	3 776 496	12	293 919	12		E			O 8	3			*	4	1
Weekly magazines Books	0137	9230	636 637	943 367 9 676 021	3 31	73 319 977 586	3 39	-	- E	_		0 8	3	-		*	- 2	1 -
Dictionaries		9251	638	483 315	2	48 879	2		E			O 8	2			*	1	2
Books-A Books-B		9261 9263	639 640	2 419 530 6 773 176	8 21	244-397 684-310	10 27		E E			0 8	2			*	3	$\frac{2}{2}$
Recreational services	0138		641	194 136 110	615	17 453 130	698 120	-	-	-			-	-				-
Hotel charges	0139	0200	642	33 912 611	107	3 225 391	129	-	- Accommo-	-			-	-		*	-	-
Package tours	0177	9500	644 644	16 577 852	52	1 932 019	77	_	dation			0 21						2
Package tours to overseas	0177	9305	645	16 577 852	52	1 932 019	77		E			O 21				*	1	2
Lesson fees (English conversation school)	0140	0328	646 647	33 452 649	106	3 248 546	130	- 3)	- 5	-		 A 21	-	-		 *	·   -	- 2
(calligraphy school)		9329	648	3 513 497	10	301 637	12	3)	S			A 21				*	2	2
(music school) (dancing school)		9326 9319	649 650	7 319 238 4 932 917	23 16	692 028 470 142	28	3) 3)	S			A 21				*	$\begin{vmatrix} 2\\ 2 \end{vmatrix}$	$\frac{2}{2}$
(swimming school)		9313	651	10 408 757	33	1 216 838	49	3)	S			A 21				*	3	2
(cooking school) Lesson fees, driving school		9317 9320	652 653	646 106 3 414 100	2	68 817 145 995	3	3)	S D			A 21 N 21				*	1	$\frac{2}{2}$
Other recreational services	0141	<i><b>J</b></i> 520	654	110 192 998	349	9 047 174	362	-	-	-			-	-				-
Charges for TV license	0142	9330	655 656	24 531 146 13 672 595	78 43	1 771 232	71	-	- F	-		 P 14	_ <b>-</b>	- *		 * *	 * 7	-
Charges for cable TV license		9368	657	9 307 859	29	783 355	31	3)	D			A 14	Ļ	*		* *	* 3	2
Charges for other TV license	0143	9367	658 659	1 550 692 43 461 136	5 138	89 398 4 056 982	4	_	E			O 14		*		* *	: 2	2
Admission, movies	0145	9341	660	5 488 637	138	533 170	21	3)	S			A 21				*	2	2
Admission, theater		9342 9345	661 662	3 658 637 517 978	12	355 661 28 942	14		E			$\begin{array}{c c} 0 & 21 \\ 0 & 21 \end{array}$				*	2	$\frac{2}{2}$
Admission, professional baseball games		9350	663	1 541 427	5	86 182	3		E			O 21				*	1	2
Charges for practicing golf Charges for playing golf		9353 9357	664 665	1 379 943 13 183 224	4 42	122 841 1 256 070	5	3)	S D			A 21 N 21				*	2	2
Tennis court charges		9358	666	345 075	1	30 871	1		D			N 21				*	$1^2$	$\frac{2}{2}$
Game charges, bowling Swimming pool charges		9361 9350	667 668	689 077 1 034 122	2	61 099 91 970	2	2') 3)	D			C 21 A 14		*		*	1	$\begin{array}{c} 2\\ 2 \end{array}$
Fitness club fees		9362	669	4 500 098	14	589 767	24	3)	S			A 21				*	1	$\frac{2}{2}$
Admission fees to the art museum Admission fees to the theme park		9374 9372	670 671	3 001 933 6 172 426	10 20	249 542 534 457	10 21		D&E F			N 14 O 21	+	*		*	2	$\begin{array}{c} 2\\ 2\end{array}$
Admission fees to the racecourse		9379	672	648 877	20	38 589	2		E			0 14		*		*	1	2
"karaoke room" charges Other recreational services	0144	9395	673 674	1 299 682 42 200 716	4 134	77 821 3 218 960	3 120	3)	S			A 21				*	1	2
Photo processing charges		9382	675	4 484 117	14	354 375	14		С			21				*	3	2
Charges for video rental Internet connection charges		9391 9397	676 677	1 466 355 25 626 407	5 81	99 688 1 969 322	4	3)	B			A 21 N 21				* *	∦ 3 ∗ ⊿	$\begin{array}{c} 2\\ 2\end{array}$
Music download service fees		9403	678	846 738	3	83 609	3		E			O 21				* *	* 1	$\frac{2}{2}$

					Wei	ght		Price survey								п			
											Met	classifi	ication	of		xpend	Expense	н	_
			S	Japan		Ku-area of	Tokvo S	Cha	Freq		thod	goods	and servi group	e e	, Tyber	ses fo	es for i	reque	Expe
	Grou	Item	erial	Jupun	·		urvey	aract	luenc	Period for index	of pr			У	ISES 1	or rea	inform	ency	nditu
Groups • Items	p cod	ı code	numl				class	eristic	y of I	computation	ice su				0F Eu	ding	ation &	of pu	re ela
	ē	()	ber				sifica	cs of	price		ıbstitı	Cat	Ref	Dof	llcaux	& rec	č comn	rchas	sticit
				Actual number	Per 10000	Actual number	Per 10000 [i]	items	surve		ution	egoriz	erenc	arono	)II	reati	nunicat	es	у
									у			ze	e1	2		on	ion		
Veterinary surgeon fees		9396 0188	679 680	5 949 803 3 827 206	19 12	455 993 255 073	18 3) 10 3)	S			A	21				*		2	2
Miscellaneous	0145	9100	681	179 635 015	569	13 713 864	548 -	-	-		- -	-	-	-   -	-		-	-	-
Personal care services	0146		682	37 344 406	118	3 125 061	125 -	-	-		-	-	-	-   -			-	-	-
Bathing charges Men's baircut charges		9504 9511	683 684	5 619 803	18	400 039 697 816	16 28	D A			Ν	18 18						3	1
Permanent wave charges		9521	685	8 150 613	26	731 260	29	A				18						2	1
Women's haircut charges		9531	686	8 771 099	28	749 912	30 3)	А			А	18						3	1
Hair dyeing charges		9532 9505	687 688	2 488 632	8	288 774	12 3)	A			A	18 18						1	2
Toilet articles	0147	9303	689	43 764 297	139	3 335 371	10 3)	-	-		- -	-	_	_   _	-			-	-
Toilet utensils	0148		690	2 662 005	8	185 870	7 -	-	-		-	-	-	-   -	-		-	-	-
Electric shavers		9602	691	1 479 201	5	100 974	4 3)	B			А	6	1					1	2
Toothbrushes Soan & others	0149	9611	692 693	1 182 804	4 37	84 896 850 244	3	С	_			6	3		_			3	1
Toilet soap	0147	9621	694	913 341	3	66 244	3	А				6	3					3	2
Body soap		9626	695	1 826 323	6	132 489	5 2)	В			В	6	3					3	2
Facial wash		9627	696	1 826 323	6	132 489	5 3)	B			A	6	3					3	2
Hair conditioner		9622 9624	697 698	2 981 222 2 195 209	9	219 314 158 858	9 2) 6 2)	В			В	о 6	3					4	$\frac{2}{2}$
Toothpaste		9623	699	1 924 765	6	140 850	6 1)	B			C	6	3					4	1
Cosmetics	0150	0.494	700	29 435 109	93	2 299 257	92 -	-	-		-	-	-	-   -	-		-	-	-
Hair Iquid Hair tonic		9631 9641	701 702	2 519 840	8	200 662	8	B				6 6	3					$\frac{2}{2}$	1
Face cream-A		9650	702	6 636 175	21	600 058	24 3)	C			А	6	3					3	2
Face cream-B		9652	704	737 115	2	66 887	3 3)	В			А	6	3					3	2
Toilet lotion		9661	705 706	7 328 754	23	490 723	20	B				6	3					3	1
Milky lotion-A Milky lotion-B		9690 9692	706 707	2 203 312	1	135 704	5 3)	B C			A A	6 6	3					$\frac{2}{2}$	1
Foundation-A		9670	708	3 114 554	10	214 812	9 3)	C			A	6	3					2	2
Foundation-B		9672	709	777 893	2	53 381	2 3)	B			A	6	3					2	2
Lipsticks-A Lipsticks-B		9680 9682	$710 \\ 711$	1 089 039 466 992	3	86 825 37 303	3 3)	C B			A A	6 6	3					$\frac{2}{2}$	$\frac{2}{2}$
Hair dyeing		9625	712	2 815 761	9	281 056	11 3)	C			A	6	3					$\frac{2}{2}$	$\frac{2}{2}$
Personal effects	0151		713	19 974 306	63	2 245 877	90 -	-	-		-	-	-	-   -	-		-	-	-
Bags	0152	0721	714 715	13 929 990	44	1 599 512	64 - 27 - 2)	- B	-		- B	-	-	-   -			-	-	- 2
Handbags (imported)		9721	715	5 208 103	16	668 232	27 2)	E			D O	6	$\frac{2}{2}$					$\frac{2}{2}$	$\frac{2}{2}$
School knapsacks		9711	717	1 913 898	6	86 182	3 1)	В		JanFeb.,Dec.	С	6	2		;	*		1	1
Suitcases	0152	9731	718	1 599 766	5	176 866	7 3)	В			А	6	2			*		1	2
Rings	0155	9741	720	3 707 452 1 534 256	12	410 329	10 - 7 - 3)	C	-		Ā	- 6	- 2	-   -			-	- 1	-2
Wrist watches		9751	721	2 173 196	7	234 106	9 3)	C			A	6	1					1	2
Other personal effects	0154		722	2 336 864	7	236 036	9 -	-	-		-	-	-	-   -	-		-	-	-
Men's umbrellas Handkerchiefs		9701 9761	723 724	1 471 921 864 943	5	147 281 88 755	6 2) 4	B			В	6 4	$\frac{2}{2}$					2	$\frac{2}{2}$
Tobacco	0155	2701	725	16 643 680	53	1 054 121	42 -	-	-		-	- -	-	-   -	-	-   -	_	-	-
(domestics)		9799	726	9 986 409	32	632 215	25	E			0	6	3	*				5	1
(imported) Other miscellaneous	0154	9798	727 728	6 657 271	21 106	421 906	17	E			0	6	3	*				5	1
Charges for accident insurance	0150	9928	729	38 565 800	190	2 258 095	90	Ē	-		Ō	10	-	*		-   -	-	2	2
Nursery school fees		9921	730	16 426 097	52	1 124 224	45 3)	D			А	11		*				2	2
Charges for nursing care		9914 9901	731 732	3 630 449	11	236 679	9	E				11 10		*				2	$\frac{1}{2}$
Charges for certificates of permanent registration		9901 9911	733	821 495	3	83 609	3	D				10		*				1	$\frac{2}{2}$
Charges for acquisition of passport		9912	734	821 495	3	83 609	3 3)	D			А	14		*				1	2
Charges for transfer commission	0157	9920	735	821 495	3	83 609	3	E			0	18			_	<u> </u>	<u> </u>	1	2
Fresh fish & seafood (reentry)	0157		730 737	40 456 237	396 128	9 516 009 2 731 451	572 109												
Fresh vegetables (reentry)	0159		738	55 384 707	175	4 551 564	182												
Fresh fruits (reentry)	0160		739	29 179 377	92	2 032 994	81												
All items, less fresh food Food less fresh food	$0161 \\ 0172$		740 741	3 032 966 069	9 604	240 855 380	9 628												
All items, less imputed rent	0163		742	2 665 834 914	8 442	201 609 794	8 059												
Housing, less imputed rent	0164		743	178 117 385	564	17 581 114	703												
Rent, less imputed rent & fresh food	0165		744 745	96 833 670	307 8 046	11 816 573	472												
Energy	0167		746	243 745 915	772	12 932 436	517												
All items, less food (less alcoholic beverages) and energy	0168		747	2 156 138 193	6 828	180 227 030	7 204												
Expenses for education	0162		748	130 460 394	413	13 652 765	546												
Expenses for culture & recreation Expenses for information & communication	0173		749 750	591 175 486 148 323 958	1 239 470	55 581 997 10 069 781	1 334 403												
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				Wei	ght		Price survey								ц	н	
Groups • Items	Group co	Serial nu Item co	Japar	1	Ku-area of	Tokyo Survey cla	Characteris	Frequency of	Period for index computation	Method of price	classifi goods	cation and servi group	of Energy	Expenses for e	xpenses for readin	Expenses for information	Expenditure e
	ode	nber de	Actual number	Per 10000	Actual number	Per 10000	tics of items	f price survey		substitution	Categorize	Reference1	Reference2	ducation	g & recreation	1 & communication	lasticity
All items	0201	751	3 157 986 390	10 000	250 171 389	10 000											
Goods	0202	752	1 557 166 225	4 931	105 297 845	4 209											
Agricultural, aquatic & livestock products	0203	753	217 662 803	689	15 431 712	617											
Fresh food, raw meats & cut flowers	0204	754	192 926 855	611	13 968 548	558											
Other agricultural, aquatic & livestock products	0205	755	24 735 948	78	1 463 164	58											
Industrial products	0207	756	1 130 164 153	3 579	73 338 908	2 932											
Food products	0208	757	422 235 610	1 337	29 750 135	1 189											
Textiles	0211	758	127 210 639	403	11 024 858	441											
Petroleum products	0214	759	113 517 510	359	2 295 398	92											
Other industrial products	0215	760	467 200 394	14/9	30 268 517	1 210											
Electricity, manufactured & piped gas & water charges	0218	761	101 /49 103	512	12 003 188	506											
Publications	0219	762	47 590 100	5 069	5 804 057 144 873 544	134 5 791											
Dublic services	0220	763	379 050 071	1 200	27 9/9 0/0	1 117											
House rent public Urban Renaissance Agency & public corporation	0221	765	12 499 014	40	1 115 220	45											
Services related to domestic duties	0222	765	143 571 381	455	7 732 988	309											
Services related to medical care & welfare	0224	767	82 009 921	260	6 479 081	259											
Services related to forwarding & communication	0225	768	104 024 876	329	10 160 466	406											
Services related to education	0226	769	6 907 306	22	226 343	9											
Services related to culture & recreation	0227	770	30 037 573	95	2 234 942	89											
General services	0228	771	1 221 770 094	3 869	116 924 504	4 674											
Meals outside the home	0229	772	168 111 926	532	15 097 275	603											
House rent, private	0230	773	84 334 656	267	10 701 353	428											
Imputed rent	0231	774	492 151 476	1 558	48 561 595	1 941											
Other services	0232	775	477 172 036	1 511	42 564 281	1 701											
Services related to domestic duties	0233	776	137 975 396	437	10 368 847	414											
Services related to medical care & welfare	0234	779	8 200 245	20	942 850	38 452											
Services related to communication, culture & recreation	0235	770	95 854 840	504 744	11 343 900	455											
Rice	0230	779	235 075 335	76	1 420 716	57											
Durable goods	0237	781	208 409 041	660	12 053 252	482											
Semi-durable goods	0238	782	226 688 700	718	18 701 485	748											
Non-durable goods	0239	783	1 122 068 484	3 553	74 543 108	2 980											
Fees for public services	0240	784	558 753 827	1 769	41 762 821	1 669											
Goods, less fresh food	0241	785	1 432 145 904	4 535	95 981 836	3 837											
Services, less imputed rent	0242	786	1 108 668 689	3 511	96 311 949	3 850											
House rent, private (wooden)	0245	787	-	-	-	-											
House rent, private (non-wooden)	0246	788	-	-	-	-											
Imputed rent (wooden)	0247	789	-	-	-	-											
Imputed rent (non-wooden)	0248	790	-	-	-	-											_
All items less fresh food, seasonally adjusted	0901	791	-	-	-	-											
All items less imputed rent seasonally adjusted	0902	792	-	-	-	_											
All items less imputed rent & fresh food seasonally adjusted	0903	793	-	-	-												
All items, less food (less alcoholic beverages) and energy, seasonally adjusted	0905	795	-			_											
Goods, seasonally adjusted	0921	796	-	-	_	_											
Semi-durable goods, seasonally adjusted	0922	797	-	-	_	_											
Goods, less fresh food, seasonally adjusted	0923	798	-	-	-												