

# Overview of Reference Loss Cost Rates

As of February 2016

## What is the General Insurance Rating Organization of Japan (GIROJ)?

### 1. Mission

The mission of GIROJ is to facilitate the sound development of the general insurance business and protect the interests of policyholders and parties concerned.

### 2. History

GIROJ is a rating organization (private non-profit corporation) established under the Act on Non-Life Insurance Rating Organizations, and its operations are supervised by the Financial Services Agency (FSA).

On November 1, 1948, the Property and Casualty Insurance Rating Organization (PCIRO) was established, and on January 8, 1964, the Automobile Insurance Rating Organization of Japan (AIRO) was separated from the PCIRO and became independent. Later, on July 1, 2002, the two rating organizations merged to form GIROJ.

### 3. Roles

#### (1) Calculation and provision of Reference Loss Cost Rates and Standard Full Rates

GIROJ calculates Reference Loss Cost Rates for fire insurance, personal accident insurance, voluntary automobile insurance, and nursing-care expenses insurance as well as Standard Full Rates for compulsory automobile liability insurance (CALI) and earthquake insurance. GIROJ calculates these rates by using large amounts of data reported from its member companies and making full use of rational techniques including scientific and engineering approaches and actuarial science. The calculated rates are provided to member insurance companies.

#### (2) Claim surveys for CALI

GIROJ has set up CALI Claim Surveys Offices in major cities. As a neutral organization, it conducts fair surveys for CALI claims. The claim survey data collected by the offices are effectively utilized to calculate Standard Full Rates for CALI.

#### (3) Data bank functions

GIROJ collects not only insurance data to calculate Reference Loss Cost Rates and Standard Full Rates but also other insurance data in order to analyze and study various risks. These results are provided to member companies and disclosed to society in general.

We, the General Insurance Rating Organization of Japan (GIROJ), are a rating organization established under law. We collect large amounts of data from our member companies, calculate Reference Loss Cost Rates for fire insurance, personal accident insurance, voluntary automobile insurance, and nursing-care expenses insurance based on highly accurate statistics, and file the rates with the Commissioner of the FSA. Our members are available to refer to the Reference Loss Cost Rates for calculation of their insurance premium rates.

This leaflet describes an overview of Reference Loss Cost Rates calculated by GIROJ. We very much hope that it aids your better understanding of them.

#### Act on Non-Life Insurance Rating Organizations

The objectives of the Act on Non-Life Insurance Rating Organizations are to facilitate the sound development of the general insurance business, and to protect the interests of policyholders and parties concerned by ensuring the appropriate management of operations of rating organizations.



General Insurance Rating Organization of Japan

## I. General Insurance Rating Organization of Japan and Reference Loss Cost Rates

### 1. Price of general goods and price of insurance

In general, the price of goods is determined by raw materials, personnel, and other miscellaneous costs. Therefore, usually, the price of the goods is definitely determined before they are sold.

Almost the same idea applies to insurance premiums which are the price of general insurance, but there is one major difference that the price of general insurance is primarily determined by the insurance claims that will be paid by insurance companies when accidents occur and that this portion is not yet definite at the time when insurance is sold.

For this reason, the amount of insurance claims to be paid for future accidents is estimated based on past insurance data and scientific and engineering approaches. Here lies the difficulty in determining insurance premiums, and this is where GIROJ fulfills its roles as a rating organization.

### 2. Structure of insurance premium rates

The insurance premium rates consist of the pure premium rates and expense loading.

The pure premium rates are for covering insurance claims paid by insurance companies when accidents occur.

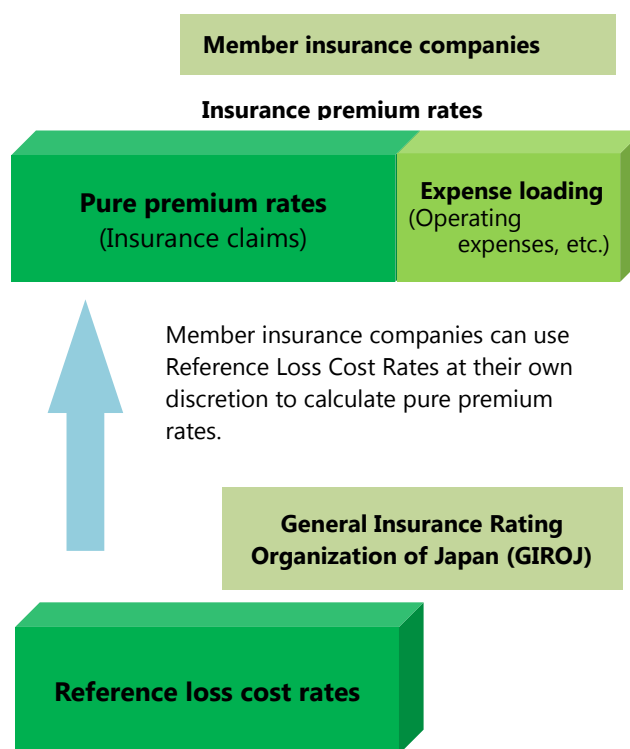
Expense loading comprises operating expenses for the insurance business.

### 3. Relationships between Reference Loss Cost Rates and member insurance companies' premium rates

Member insurance companies can use the Reference Loss Cost Rates calculated and provided by GIROJ as a basis for calculating their pure premium rates. However, they are not obliged to use the Reference Loss Cost Rates.

Expense loading is calculated by each insurance company according to its own guidelines.

Member insurance companies thus calculate their premium rates and apply to the Commissioner of the FSA for approval of the rates (or file them).



## II. Operations for the Calculation of Reference Loss Cost Rates

### 1. Three principles of insurance premium rates

The Act on Non-Life Insurance Rating Organizations stipulates that Reference Loss Cost Rates shall be reasonable and adequate, and shall not be unfairly discriminatory. These requirements are known as the "three principles of insurance premium rates."

(a) What does the word "reasonable" mean?

It means that the insurance statistics and other data underlying the calculation of Reference Loss Cost Rates are objective and accurate, that the quantity of the data is sufficient, and that the calculation adopts a scientific approach based on actuarial science.

(b) What does the word "adequate" mean?

It means that Reference Loss Cost Rates are considered to be both sufficient and not excessive amounts to pay expected insurance claims.

(c) What does the phrase "not unfairly discriminatory" mean?

It means that the risk classification and level for Reference Loss Cost Rates are set appropriately based on the difference in actual risks between the classes.

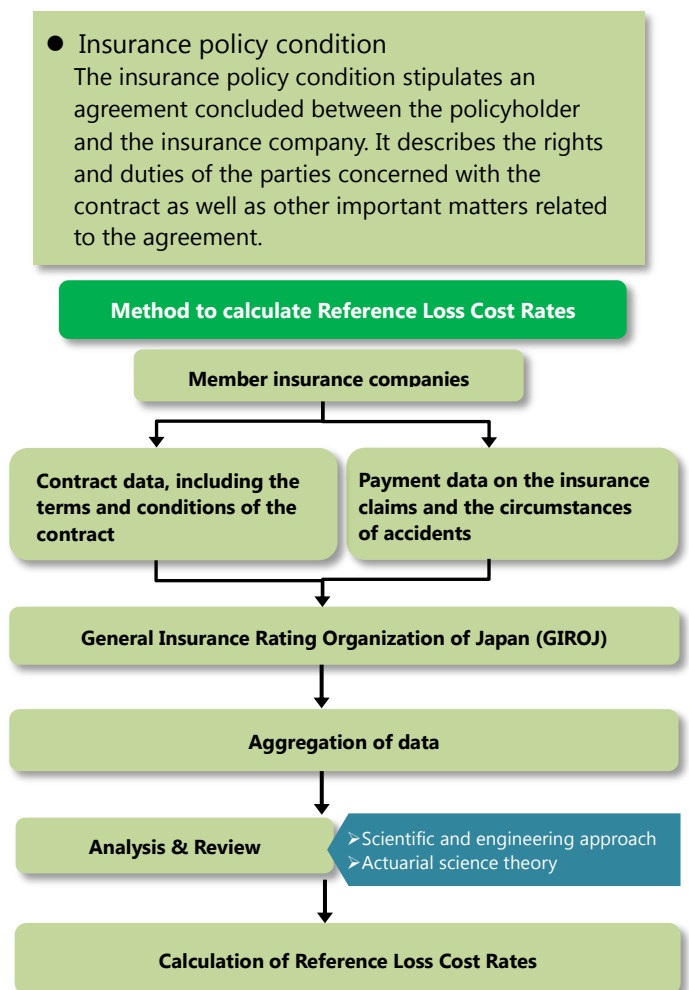
### 2. Calculation of Reference Loss Cost Rates and the drafting of standard policy conditions

In order to calculate insurance premium rates, it is necessary to definite the contents of insurance contracts and details of coverage. When calculating Reference Loss Cost Rates and Standard Full Rates, GIROJ stipulates certain terms and conditions that provide the basis for such calculations. Insurance policy conditions drafted based on these terms and conditions are provided to member insurance companies as reference materials.

### 3. Calculation of Reference Loss Cost Rates

Member insurance companies report two types of data to GIROJ, which are data on terms and conditions for individual insurance contracts and data on insurance claims paid for individual insurance contracts when accidents occur.

Based on this contract and payment data, GIROJ calculates Reference Loss Cost Rates by using actuarial science theory and scientific / engineering approaches related to various risks.



#### 4. Filing of Reference Loss Cost Rates

GIROJ files the calculated Reference Loss Cost Rates with the Commissioner of the FSA.

The Commissioner examines the Reference Loss Cost Rates filed by GIROJ to determine whether they conform to the three principles of insurance premium rates.

If member insurance companies apply for approval of (or file) their insurance premium rates using the Reference Loss Cost Rates examined by the Commissioner, the Commissioner examines the rates taking into consideration that the used Reference Loss Cost Rates conform to the three principles of insurance premium rates.

### III. Adequacy of Reference Loss Cost Rates

#### 1. Verification of the adequacy of Reference Loss Cost Rates

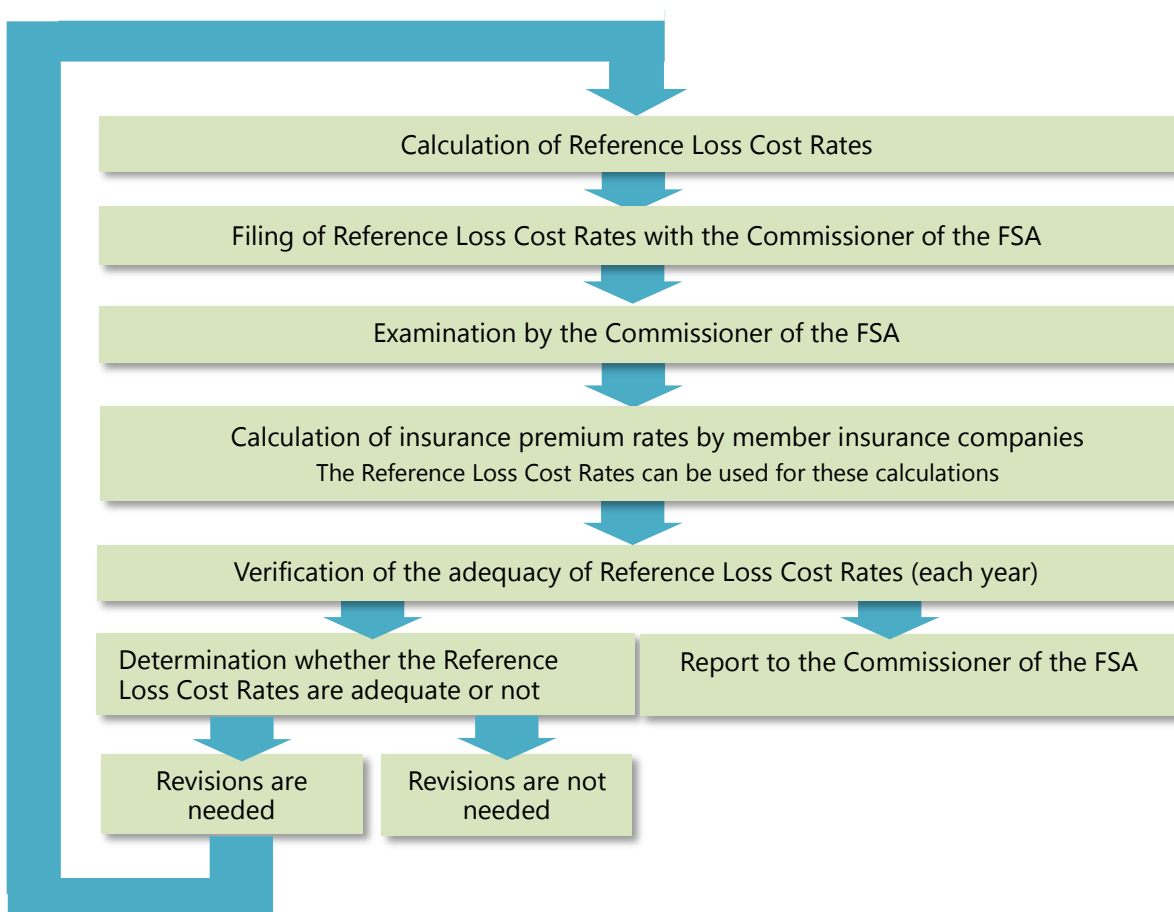
Since actual risks change according to factors such as changes in the social environment, Reference Loss Cost Rates cannot remain at appropriate levels forever even if they are appropriate at the time when they are calculated.

Therefore, it is necessary to check periodically whether the Reference Loss Cost Rates are maintained at appropriate levels.

GIROJ verifies the adequacy of the Reference Loss Cost Rates each year and reports the results of the verification to the Commissioner of the FSA.

#### 2. Revision of the reference loss cost rates

If, as a result of verification, it determines that the Reference Loss Cost Rates are not adequate, GIROJ immediately calculates new Reference Loss Cost Rates and files them with the Commissioner of the FSA.



## IV. Types of Insurance for Which Reference Loss Cost Rates are Calculated

GIROJ calculates Reference Loss Cost Rates for the following types of general insurance currently sold in Japan. The main content of each type is as follows:

### 1. Fire insurance

- Dwelling risk (Fire insurance and comprehensive insurance for housing)
- General risk (Fire insurance and comprehensive insurance for office buildings, retail properties, etc.)
- Factory risk (Fire insurance for commercial factories)
- Warehouse risk (Fire insurance for commercial warehouses)
- Housing loan fire insurance (Fire insurance for properties that have received public financing from organizations such as the Japan Housing Finance Agency)

*Fire*

*Lightning*

*Explosion*

*Wind disaster*

*Water disaster*

*Damage such as collisions from  
outside the building*

### 2. Personal accident insurance

- Ordinary personal accident insurance and family-type personal accident insurance (Insurance claims are paid if the insured person gets injured in daily life.)
- Traffic personal accident insurance and family-type traffic personal accident insurance (Insurance claims are paid if the insured person gets injured in a traffic accident \*.)
- Domestic travelers' personal accident insurance (Insurance claims are paid if the insured person gets injured when traveling in Japan.)
- Overseas travelers' personal accident insurance (Insurance claims are paid if the insured person gets injured or sick when traveling abroad.)

\*In addition to car accidents, traffic accidents include accidents caused by means of transport other than cars (such as trains) and those which involve passengers when they are in a station.

*Injury in daily life*

*Injury during work*

*Injury while walking*

*Injury during travel*

### 3. Voluntary automobile insurance

- Bodily injury liability coverage (Insurance claims are paid if a person is legally obliged to compensate damage for killing or injuring another person in a car accident.)
- Self-incurred personal accident coverage (Insurance claims are paid if a person dies or gets injured in a self-incurred accident such as a car colliding with an electric pole or falling from a cliff).
- Protection against uninsured automobiles (Insurance claims are paid if a person dies or suffers permanent disabilities due to an accident caused by a car without sufficient financial resources for compensation by the reason of no insurance coverage for bodily injury liability, etc..)
- Property damage liability coverage (Insurance claims are paid if a person is legally obliged to compensate damage to another person's property resulting from a car accident.)
- Passenger's personal accident coverage (Insurance claims are paid if a passenger in the car driven by the insured person dies or becomes injured due to a car accident.)
- Vehicle's physical damage coverage (Insurance claims are paid if damage is caused to the insured car due to collisions, scrapes, crashes or other unavoidable events.)

*Compensation for damage for killing or injuring another person*

*Death or injury due to a self-incurred accident*

*Compensation for the damage caused to another person's property*

*Death or injury during driving*

*Damage to own vehicle*

*Death or permanent disability caused by an uninsured car*

### 4. Nursing-care expenses insurance

- Insurance claims are paid if the insured person has come to require nursing care for reasons such as becoming bedridden or developing cognitive impairment.

*When the insured person has come to require nursing care*

*Expenses to remodel the house or purchase nursing care equipment*