

# Consumer price indices for motor vehicle insurances: the new source and methodology in the Italian experience

## Current survey on motor vehicles' insurances prices

### CURRENT SURVEY

#### Methodological approach: Model prices of representative consumers' profiles

Current approach is based on model prices. It defines different consumers' profiles, which are expected to be representative of all consumers. These profiles are designed on the main features which are likely to influence insurance prices, among which the most relevant are: driver's age, driving experience, city of residence, kind of motor vehicle, number of car accident throughout last years.

#### Survey's technique: Price collection on the field, carried on by municipal data collector

In terms of data collection, Italian consumers prices survey consists in two main collection channels: one is called "centralised" and is directly managed by Istat; the other is called "territorial" and is managed by Istat through statistical offices of different municipalities. In the territorial data collection prices are observed directly on the field by municipal data collectors and this is the case also for motor vehicles' insurances. In concrete terms, municipal data collectors visit selected insurances' broker agencies and ask the insurances' prices with corresponded to the designed consumers' profiles.

#### DRAWBACKS of current survey

Current approach has begun to show severe drawbacks during last years

#### In methodological terms

A model price method, based on a limited and predefined profiles, increasingly appears inadequate to properly represents a market characterised by a broad supply of products.

#### In feasibility terms

Many times, municipal data collectors cannot collect prices, since often insurances' brokers are not able in establishing a certain prices without having a concrete licence plate number.

## A private-public partnership for innovation of motor vehicles' insurances prices survey

In 2020 a partnership has been established between Istat and public and private stakeholders of insurance market. The purpose was to innovate the survey on prices of motor vehicles' insurances, in order to provide to citizens and to market's stakeholders, statistical information on insurance which could be very representative, prompt, and complete.

#### STAKEHOLDERS OF PARTNERSHIP

- Istat – National institute of statistics
- Central Bank of Italy
- Ivass – Authority for supervision of insurance
- Ania – Association of insurance enterprises
- Insurance Enterprises

In 2013 Ivass started a quarterly survey on motor vehicles' insurance prices, called "Iper", which became increasingly comprehensive, until being able to consider a wide and very representative sample (about 8 million cars, representative of more than 30% of the whole motor vehicles' insurances sold in the national market). In order to use "Iper" data for the consumer price index, some adjustments have been required and implemented, in terms of methodological issues, frequency and timeliness.

Starting from 2024 data elaborated on actual prices, referred to the sample of about 8 million cars, will become available to Istat monthly. With the transition from a profile-based approach (without any information about the number of contracts) towards actual prices, it will be possible to properly represent the dynamics of this complex market. As a matter of fact, new data coming from Iper are transaction prices, that bring information on the quantities of contracts signed, and not only on a profile-based theoretical price and, as such, they represent the real market behavior without the constraints that come from adopting a limited number of fixed consumers' profiles.

## Current vs New methodology

### CURRENT SURVEY

Sample of 80 Provinces (Nuts 3)

About 1,500 prices surveyed monthly

#### 4 insured profiles

defined on the basis of geographical area, driver's age and seniority of his driving license, technical characteristic and age of motor vehicles, risk profile

#### Difficulties in data collection

Many times, municipal data collectors aren't able in observing prices without having concrete license plates number

### NEW SURVEY

All 107 Italian Provinces (Nuts 3)

More than 600,000 prices surveyed monthly

#### All insurance's contracts

there is no reference to predefined profiles but all insurance contracts, duly stratified by variables affecting the price level and evolution, can be potentially included in the sample

#### A central survey carried out directly by ISTAT

Observed prices are the actual transaction prices



Greater territorial coverage



Greater representativeness



Overcoming the difficulties of field surveying

## Price index computation: two alternative methods

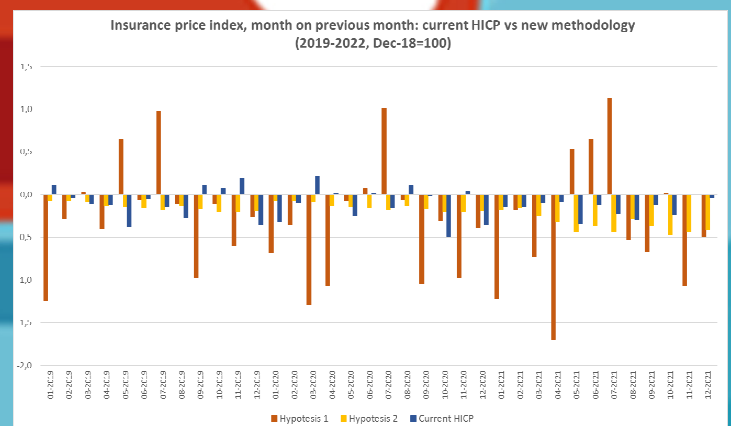
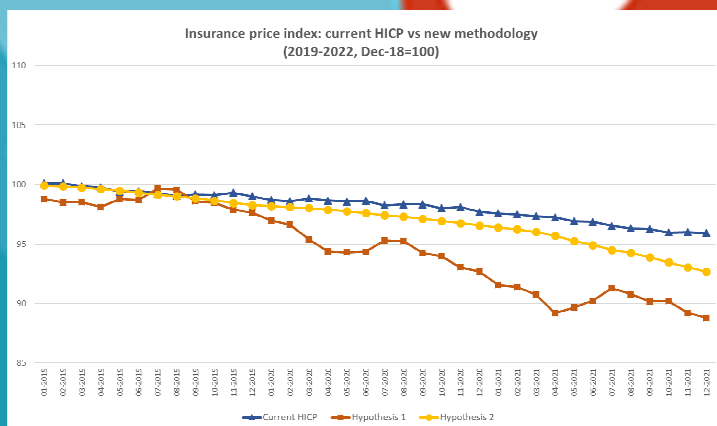
There are 4,280 stratum (107 provinces x 5 driver's age class x 5 types of vehicle x 2 risk class). Weighted means are estimated for each stratum. Starting from these data, two computing methods can be applied, depending on the period of relevance assigned to insurance prices. Indeed, insurance service is bought in a given month, but it lasts for one year. Therefore, considering only the prices of insurances sold in that month, it does not take into account all the other living contracts (which have been sold in the previous eleven months). It might lead to overestimate, as well as underestimate (more probable given the market tendencies), the actual price of insurance services for each month.

#### Hypothesis 1

Considering insurances STIPULATED in the reference month: **PRICES OF ONE MONTH**

#### Hypothesis 2

Considering insurances IN FORCE in the reference month: **PRICES OF TWELVE MONTHS**



Indices, both with current and new approaches, show a decreasing trend over a considered period of time (2019-2021). It is possible to observe that the new approach has a larger variation, greater in the first hypothesis than in the second one. The latter, indeed, embodying contracts of twelve months (and not only those of one single month), has a more smoothed pattern. The differences in terms of variation are underlined by comparing monthly variations.