

Information Notice

CSO Report on the Feasibility of Collecting Price Information on the Cost of Insurance to Businesses

In January 2018, the Cost of Insurance Working Group (CIWG) ¹ recommended that the CSO commence a feasibility study on measuring price information on the cost of insurance to businesses. The CSO has now completed that feasibility study, which focuses on employers' liability and public liability insurance. The study is being published on the CSO website and the CSO will continue its research into business insurance in 2019, before deciding whether to begin collecting and compiling a price index on this topic.

The background to the study, and to the CIWG's recommendation, was the absence of quality information on business insurance, including official statistical data, to inform policy formulation by government. The CSO has contacted colleagues in other National Statistical Institutes (NSIs), met with industry experts, and examined the techniques used in already-established price indices, to develop an understanding of the insurance market and the potential ways of compiling a price index.

In general, price indices need to be based on comparable price quotations (i.e. for exactly the same good or service each month) and a sufficiently wide and representative range of price quotations. Comparability and representativity are key requirements. As business insurance is a heterogenous sector, with a wide range of types of premises and risks to be covered, meeting these two criteria is more difficult than for other goods and services.

One of the starkest findings in the study is the lack of international precedent for a price index for business insurance. The Bureau of Labour Statistics (BLS) in the US appears to be the only organisation that produces price indices on business insurance. In Canada, Statistics Canada attempted to produce a price index for property and casualty insurance, but discontinued the survey due to concerns about data quality and the burden on respondents. These were the only two concrete examples CSO found. The lack of international precedent, as found by the CSO, means there are large methodological challenges for the CSO to overcome.

In reviewing how data on business insurance premiums could be accessed and used to calculate an index, the CSO identified seven potential methods of collecting price information on liability insurance. The Office assessed these against four criteria:

- (i) statistical quality;
- (ii) burden on respondents;
- (iii) meeting user needs; and
- (iv) cost.

After analysing each of the seven potential methods, the CSO found that four were unfeasible and two further options, while technically feasible, would be extremely difficult to implement in practice. In summary, the methods considered, and the conclusions reached were as follows:

Option No.	Description	Assessment of feasibility
1	Detailed survey of businesses (hedonic method)	Unfeasible.
2	Sending representative profiles to insurance companies for frequent repricing	Unfeasible.
3	Repricing representative profiles in CSO using pricing portals from the insurance companies	Unfeasible.
4	Using technology to automatically price a high volume of representative profiles	The CSO will pursue this method further to assess statistical quality and cost of implementation
5	Receiving transactions data from insurance companies (hedonic method)	Technically feasible but very difficult in practice
6	Receiving transactions data from third-party service provider to brokers (hedonic method)	Technically feasible but very difficult in practice
7	Collecting information from publicly available price comparison websites (hedonic method)	Unfeasible.

The method that the CSO will pursue is to use a commercially available technology solution to automatically price a high volume of representative customer profiles for business insurance. The technology solution involves automating the submission of premium quotation requests to insurance company portals, with the agreement of the insurance companies.

Representative customer profiles would describe the type of insurance being requested – e.g. office-based company with 20 employees, good safety standards, no claims history; retail unit with specified turnover and number of employees; etc. The aim is to develop a high volume of profiles which would be priced automatically each month.

The CSO consider this to be the most efficient method to collect premium information for the representative profiles. The Office has carried out some initial research, in conjunction with a technology / analytics company, into how this method would work for motor insurance. The indications are positive to date and the CSO plans to continue this research for business insurance. The CSO will engage external technology partners, by competitive process, to bring this work forward.

The method proposed by the CSO attempts to address the key requirements of a price index, comparability and representativity. At the same time, it addresses the difficulties encountered by other NSIs with measuring business insurance, i.e. the high burden placed on survey respondents which in turn had a negative impact on data quality and the level of response.

An important consideration for each survey administered by the CSO is the burden placed on respondents. By using this method, the burden on insurance companies would be minimal, thereby ensuring their costs are not impacted. This is a particularly important consideration in a market where the goal is to reduce insurance premiums for consumers.

There are some limits to what the proposed approach can deliver:

- It is unlikely that retrospective premium information could be collected. Automated premium quotation requests will be in real time, not from a historic date.
- This means the data would not give any statistical information on how premiums for business insurance changed in recent years. Any price index calculated from the raw data would start from the month when data collection begins.
- The coverage of the price index would be restricted to that section of the market that can

be automatically priced using the pricing portals from the insurance companies. Broadly, this would mean insurance for office and retail business customers. Other sectors of commercial insurance often involve assessment of risk on a case-by-case basis by an underwriter, for which the process for giving quotations is not fully automated.

The CSO's proposed method will be based on insurance premium quotations rather than premiums actually paid. It will not take into account any effects related to the bargaining power of the buyer. In terms of the raw data needed for a price index, it will compare like-for-like premium quotations over time.

Ultimately, the CSO's decision on whether a price index for business insurance can be compiled depends on the next phase of the research. The CSO will continue this research in the short-term and will provide the Cost of Insurance Working Group, which is co-ordinated by the Department of Finance, with a final determination on feasibility within the next 6 months.

This will be a statistical decision, which the CSO will make based on the outcome of the work on automated collection of premium quotations. The criteria for the decision will be the success of collecting the raw data (premium quotations), the quality of the data, the capacity to calculate a comparable and representative price index from the data and the costs associated with creating and maintaining a new index.

If the CSO's research finds that it is possible to calculate a price index for business insurance, the first publication of a monthly index would take place between 12 to 18 months after the initial data collection. For example, if data collection began in September 2019, the CSO would likely publish first results in late 2020 or early 2021, subject to resources being made available.

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