

## Session 4 - Financial services, including insurances

**Chair:** Thierry Lacroix, INSEE

### Summary of session

Two papers were presented in this session. Viglino is interested in an important but overly often neglected aspect of the treatment of insurance services: taking into account of excess. Ribe also deals with this problem and is more broadly interested in different conceptual and measurement issues related to insurance and financial service indices. The two studies rely on the methods used for the compilation of French and Swedish CPI or of their variant harmonized at European level, the HICP.

- **Insurance**

#### *Treatment of excess*

The modifications of insurance tariffs go more often through a modification of excess - generally a rise - than through a variation of the amount of the premiums, in particular in car insurance. It is therefore important to correctly deal with the variations of excess in CPIs. Viglino and Ribe propose a similar treatment in the form of quality adjustment, the principle of which is applied in France and in Sweden. The adjustment performed consists in correcting the amount of gross premiums of gain expectation, for the policyholder, linked to the variation of excess. The calculation involves an estimate of the claim frequency and an assessment of the distribution of claims according to their amount. Viglino points out that this information may be obtained from trade associations of insurers or estimated from household surveys. The statistical laws of the distributions of claims according to their amount are thus estimated in the case of the French index whereas the only frequency of claims exceeding the amount of the excess is used in the Swedish index, in view of the greater difficulty to obtain detailed information in Sweden than in France. Silver suggests an overlap method as an alternative, based on the assessment by the insurers of the cost of the new policy in the conditions of the previous invoicing. This solution has however two drawbacks: the first one is to make heavier the work requested from the insurers, the second is that the insurer may not be in a position to perform such an assessment.

Ribe thinks that an analogous procedure should in principle be applied to maintain constant over time the value of excess (a nominal value unchanged means a decrease of actual value) but this adjustment can practically be neglected in a low inflation period.

The robustness of the estimations at a given date seems good (Viglino) but frequent updates of the distributions are required to take into account the possible adaptations of risk behaviour (frequency of claims) to the modifications of the level of excess when it is important (Ribe).

#### *Concept of price and weight*

A consistent and satisfactory measure of prices and weights is difficult in the case of insurance indices. Ribe presents the method adopted in the European HICP, which combines

an estimate of weights consistent with National Accounts (net approach) and an estimate of prices resting, for practical reasons, on the follow-up of the premiums (gross approach). In relation with a follow-up of net service price, the bias made is widely unknown but is potentially important because the amount of net premiums is of a much lower level than the one of gross premiums. Lacroix points out that a French recent study, with a few simplifying hypotheses, shows that both approaches can lead to very different annual variations but that their evolutions at middle term appear more similar. For Ribe, a gross/gross approach, should be more legitimate in the case of a compensation index because better reflecting the consumer's point of view whereas the approach retained (net/gross) is more justified in the case of an inflation index. Several contributors acknowledge that the gross approach is not ideal for the prices but that there exists no satisfactory alternative: on the one hand it cannot be contemplated to observe the net service for a monthly index, on the other hand the choice of a gross/gross approach would raise as Turvey has shown other difficulties at the level of sub-indices concerning the goods which enter the field of the products covered by insurance.

- **Banking services**

#### *Coverage*

The HICP as well as many national indices exclude the expenditures indirectly measured known as FISIM (financial intermediation services indirectly measured). Are this way part of FISIM the fundings performed thanks to the difference between exchange rates for purchase and for sale (currency exchange services) or between interest rates of mortgages and of loans (financial services). For Ribe, the exclusion of FISIM may be justified through conceptual and practical considerations but presents drawbacks. The service price only measures a part of the expenditure and may therefore be difficult to interpret if a substitution occurs between the components explicitly and implicitly measured of the price. It can be however pointed out that this type of problem arises for other expenditure followed-up in CPI such as health, social protection or education expenditure when the part of the cost funded by the state or compulsory social security varies.

#### *Treatment of stock-brokerage and fund services*

Stock-brokerage of securities (shares, bonds) or fund services are generally invoiced proportionally to the value of the transaction or of the amount of the assets held. The choice of the service unit the price of which will be followed-up in the index is therefore not obvious. Now Ribe shows that this choice has important consequences, in view of the great amplitude of fluctuations of financial markets these last years.

The basic question is the choice between a unit defined in volume (a portfolio of shares defined by its composition - alternative A) or a unit defined in value (the value of this very portfolio - alternative B). To keep constant over time the unit transaction leads to an indexing, either on stock-exchange indices (alternative A), or on the general price index (alternative B). Ribe prefers this latter choice for two reasons. The first one is conceptual, the service appearing more linked in the eyes of the purchaser to the value of the securities held rather than to their number. The second concerns the relevance of the indices obtained with alternative A: the strong variations of the price index of financial services are annoying in that case and their impact on the overall index is excessive (as far as 0.5% over the annual change).

### *Consistency of the choices between price and volume index*

To a price index may always be associated a volume index. With the A alternative, Ribe thinks that the volume index may be rather stable, whereas it will be probably very variable with alternative B. The point is then which of these alternatives best reflects the activity of banking services: unfortunately the answer to this question is not obvious.

### *Consistency of choices between consumer price indices and producer price index*

Ribe considers that the objectives of the two indices are not the same, which may justify different approaches. Nevertheless he proposes, after an analysis conducted from the producer's point of view and calling for considerations in terms of production and productivity to also retain the B alternative for the producer price index.

The discussion shows that many participants judge that different approaches may justify different conceptual choices between price indices and volume indices on the one hand, consumer price index and producer price index on the other hand.

## **Recommendations for statistical agencies**

### • **Insurance**

1. In the compilation of the index of insurance services, the excess variations should be treated as quality adjustments. An appropriate method is to perform explicit assessments of quality differences through the use of statistical laws of risk distribution according to their amount.
2. In combination with weights reflecting the service value, the follow-up of gross premiums is the method commonly used for practical reasons (net/gross approach). The constraints of a monthly index like the CPI make difficult any other choice. It would nevertheless be advisable to study more in-depth the extent of the bias linked to the use of this proxy.

### • **Banking services**

3. The inclusion of FISIM in the scope of banking services indices remains controversial, for theoretical and practical reasons. The objectives of the index, the quality of information sources and the cost of treatments are to be taken into account in the choices made.
4. The selection of the service unit is difficult in the case of transactions on financial securities and the management of portfolio. It is however crucial because its impact on overall index may be strong in case of important fluctuations of financial markets. The two possible options are to define the constancy of the unit in volume or in value: the second appears to be preferable from the point of view of the consumer's behaviour and because the results obtained are more credible.
5. The decisions made on the choice of the service unit for the CPI and the PPI should be considered together. The same way the consequences of these choices on volume indices should be examined.