27th Meeting of the Voorburg Group

Warsaw

October 2012

Issue Paper

Non-Life Insurance

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1.0 Introduction

The Voorburg Group examined Non-life insurance services, ISIC 6512 for the first time at its 26th meeting in 2011. There were mini papers on; SPPIs for non-life insurance services in the Czech Republic and the United States, output, turnover and pricing considerations in the development of an SPPI for direct insurance (except life, health and medical) carriers in Canada and a Dutch paper on a new method of price and volume measurement of non-life insurance services.

The presentations and subsequent discussion highlighted various complexities in the measurement of the sector and in particular the problem associated with developing an appropriate deflator for output as measured by “net premiums”. It was decided that there was not sufficient consensus on the treatment of key issues to prepare a sector paper for the Voorburg 2012 meeting and that further analysis of these issues is required.

This paper outlines the key issues that should be resolved before a sector paper can be prepared. It draws heavily on the mini presentations prepared for 2011 meeting of the Voorburg Group.

2.0 Issues

2.1 Definition of service provided

How should the services provided by insurers to policy holders be characterised?

There are two approaches; “risk assuming” and “risk pooling”. The “risk assuming” concept defines the service as the assumption of risk from policy holders. The “risk pooling” concept defines the service provided by the insurer as the administration of the pool of funds that are available to cover claims that are made by policy holders. The SNA recommends that the “risk pooling” concept is followed.

The choice of characterisation of service has implications for how the output of the sector is measured.

2.2 Measurement of the output of the sector.

As noted above, the measurement of the output of the sector is determined by the manner in which the service provided is defined.

If the “risk assuming” concept is followed then the output of insurers is the amount of risk they assume from policy holders. It is measured simply as the total of premiums and investment income. This is referred to as the “gross premiums” approach. The investment returns act to lower the premiums from what they would be in the situation that the insurance carriers did not engage in investment activities.

If the “risk pooling” concept is followed then the output of the sector is measured as premiums and investment income less claims. The remainder is assumed to be the amount that was intended to pay for the administrative services of the insurance carriers. This is known as the “net premiums” approach. The adjustment for claims can be made via an expectations or accounting methodology.

The SNA clearly prescribes that output for the sector must be measured using the “net premium” approach. There is no provision for the use of the “gross premiums” approach.

2.3 Problems associated with the “net premiums” approach

The use of the “net premiums” approach is problematic because the rate of accidents and damages claimed for, and hence nominal value itself, can fluctuate considerably from year to year. In addition to this problem of volatility, a negative nominal value may appear for a year where there are large claims. This is forbidden within the National Accounts framework.

Furthermore, if actual claims are used in the calculation of output an inconsistency will arise between nominal value and volume. So for example, as the number of claims increases so too does volume, but output decreases. Conversely, as the number of claims decreases so too does volume, but output increases.

The use of expected claims or an average of claims in previous periods could circumvent the problems of volatility and negative output.

2.4 Discrepancy between output and price measures.

For practical considerations, the price of the service provided may be measured with reference to gross premiums. It can be argued that as premiums are set based on actuarial estimates of the probability of loss and expected investment returns they adequately reflect consideration of these components. Collection of data on premiums does not carry a heavy burden. Furthermore regulatory agencies may equate price directly to premiums only.

This “gross” approach could be further developed by incorporating the return on the portion of the premium invested. Adjustments made for the payment of dividends to policy holders may also be made, where appropriate. However, the strength and stability of the (negative) correlation between premiums and the rate of return on investments cannot be assumed.

National accounts guidelines (Eurostat Handbook on Volume and Prices) recommends against the deflation of output by gross premiums. Changes in levels of provisions accruing from the returns from invested premiums and in the rate of accidents and damages claimed for, should be treated as price changes and excluded from volume measures. Ideally a deflator for the sector would incorporate each of the components of output as measured by the “net premiums” approach; premium and the return on the portion of the premium invested and also claims.

There appears therefore, to be a significant divergence between suitable price measures i.e. SPPI and deflators of output.

3.0 Alternative Approaches

3.1 Direct Volume and Price Measurement

In this approach the activities of the sector (covering expected loss, handling of risk and premiums) are differentiated. The number of policies provides production volume measures. The way in which premiums and expected investment income are distributed over risk and handling costs, is established. This relationship allows for the estimation of the value of handling costs or nominal values.

3.2 Direct Volume and Indirect Price Measurement

The volume of output for the sector is assumed proportional to the gross premium. Volume is estimated by deflating the value of premiums earned with the price of gross premiums. The price is then derived by comparison between the value and volume (value / volume).