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A note prepared for the Insurance Council of Australia

The impact of an increase in the Emergency Services Levy

Dr Richard Tooth

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About the Author

Dr Richard Tooth is a Director with the Sydney office of Sapere Research Group. He has worked directly for, and consulted to, the insurance industry. He has undertaken a number of studies on the consumer demand for general insurance. More broadly, he works on public policy, competition and regulatory issues across a number of industries including water, energy, transport and financial services. Dr Tooth has a PhD in Economics, a Master in Business Administration and a Bachelor of Science.

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Sydney Level 18, 135 King Sydney, NSW 2000 GPO Box 220 Sydney NSW 2001 Ph: +61 2 9234 0200 Fax: +61 2 9234 0201	**Canberra** GPO Box 252 Canberra City ACT 2601 Ph: +61 2 6100 6363 Fax: +61 2 9234 0201	**Melbourne** Level 8, 90 Collins Street Melbourne VIC 3000 GPO Box 3179 Melbourne VIC 3001 Ph: +61 3 9005 1454 Fax: +61 2 9234 0201
Wellington Level 9, 1 Willeston St PO Box 587 Wellington 6140 Ph: +64 4 915 7590 Fax: +64 4 915 7596	**Auckland** Level 8, 203 Queen St PO Box 2475 Auckland 1140 Ph: +64 9 909 5810 Fax: +64 9 909 5828	

For information on this report please contact:

Name:	Dr Richard Tooth
Telephone:	02 9234 0216
Mobile:	0412 105 817
Email:	rtooth@srgepert.com

Introduction and background

The NSW emergency services levy (ESL) is a compulsory levy (a tax) imposed upon insurers in NSW to contribute to funding for fire and emergency services in NSW. I have been asked by the Insurance Council of Australia (ICA) to comment on the likely impact of an increase in the ESL on the demand for home and contents insurance based on prior work I have undertaken on the impact of taxes on the demand for insurance.

The ESL Contribution Target will increase from $780 million in financial year (FY) 2018–19 to $898m in FY2019-20 and is expected to increase to $1,131m in FY2020-21;[1] in total a 45 per cent increase from FY2018–19 to FY2020–21. I assume the current (FY2018–19) ESL rate for home and contents insurance is 14.5 per cent of the pre-tax premium.[2] If there was no change in demand, the ESL rate would increase to 16.7 per cent in FY2019–20 and to 21 per cent in FY2020–21. Combined with other taxes (stamp duty of 9 per cent and GST of 10 per cent), the total tax rate on insurance would increase from 37.3 per cent to 39.9 per cent in FY2019–20 and to 45.1 per cent in FY2020–21. Relative to 2018-19, the overall premium increase would be 1.9 per cent to FY2019–20 and 5.7 per cent to FY2020–21.

The impact in terms of demand can be estimated using prior analysis of the responsiveness of demand to changes in price. I believe the most appropriate analysis is found in a study I undertook in 2015 (Tooth 2015, hereafter the 2015 Study) which examined how demand responded to changes in tax rates in Australian jurisdictions. In informing my opinion I have also drawn upon other research (see references to this paper and the 2015 Study).

Impacts

There are a number of ways in which demand may be impacted. I would expect that a tax increase would lead to a reduction in expenditure on house and contents insurance as a result of some households opting:

- not to obtain coverage
- to offset the premium impact by selecting:[3]
  - a lower-level sum insured
  - a higher-excess, and/or
  - a lower-level of service (e.g. opting for a lower price insurer regardless of firm's reputation for service).

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1 The Contribution Target was gazetted by the Treasurer for FY2018-19 on 12 April 2018 and for FY2019–20 on 26 April 2019. The FY2020-21 target of $1,131m was published in the attached is the NSW Government's Pre-Election Budget Update in early March 2019.

2 ESL rates are not prescribed in regulation. The ESL is imposed by insurers on premiums to recover their mandatory contribution to emergency services budgets. These contributions are set in proportion to the premium written by each firm, and as a result, in practice, the ESL is set as a percentage of the premium. I assume a 14.5 per cent rate based on my most recent insurance purchase.

3 See Tooth (2012, sect. 3.5)—and in particular Figure 20 (p. 42)—for survey evidence of how consumers respond (or expect to respond) to changes in taxes.

As reflected in the 2015 Study the response would differ by type of cover and by household characteristics.

The key price elasticity estimates[4] from the 2015 Study are summarised in the table below.

The table shows the elasticities measured for the 'average' household[5] and 'all' households (i.e. an estimate of the total effect). The latter have been derived from analysis in the 2015 Study that modelled the impact of the ESL in NSW.[6] The elasticities for expenditure are large, which is consistent with how the taxes are applied. A tax based on premiums applies to the pool of funds to cover claims in addition to the cost of providing the insurance services (e.g. the management costs associated with pooling funds and claims).[7]

Table 1: Key elasticity estimates from the 2015 Study

Demand variable	Elasticity	
	'Average' household	Across 'All' households
Expenditure (pre-tax) on house and contents insurance	-1.34 (Table 7)	-0.79
Purchase of building insurance (owner-occupied homes)[8]	-0.06 (Table 5)	-0.06
Purchase of contents insurance - all households	-0.34 (Table 6)	-0.25

I have applied the elasticities for all households to develop indicative estimates of the impact of the ESL change on the expenditure and take-up of insurance by householders on their residences.[9]

In applying the elasticities I have taken account of the changes in the pre-tax premium upon which the ESL rate applies. There are two offsetting effects:

- Due to inflation and population/housing growth, the pre-tax premium is likely to increase. Based on historical data,[10] I estimate that the pre-tax premium increases by around 2.2 to 2.6 per cent per annum.
- Due to the ESL rate increase and its impact on demand, the pre-tax premium will fall (as estimated in the table below).

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4 A price elasticity (of demand) measures the percentage change in demand in response to a percentage change in price.

5 That is, the household with the average characteristics of the sample used.

6 See Section 5.5 of the 2015 Study. The implied elasticities are calculated as the estimated percentage change in demand that occurs from introducing the ESL divided by the ESL rate as modelled in the 2015 Study.

7 When expressed relative to the estimated price of providing the insurance service, the implied elasticity is similar to the price elasticity of demand for other broad commodity groups. See the 2015 Study (pp. 22-23).

8 Excludes owner occupied homes that are part of a body corporate (as the building insurance will be purchased by the body corporate).

9 The estimates exclude estimates of building and contents insurance relating to second (e.g. holiday) properties, building insurance by landlords and building insurance in buildings with a body-corporate. I expect the impact of the first category may be material but small for the latter two categories.

10 I examined two sources to estimate growth: APRA's Quarterly General Insurance Performance database and the data captured in the 2015 Study, which is based on ABS Household Expenditure.

I estimate that these two effects almost exactly offset each other and consequently I assume:

- there would be no material change in the total pre-tax premium
- the ESL rate will need to increase in proportion to the increase in ESL Contribution Target (to 16.7 per cent to cover the FY2019–20 ESL Contribution Target and to 21 per cent to cover the FY2020–21 Contribution Target).

The table below shows the results of the analysis. The results show the medium term impact of the increase in the ESL rate to meet the FY2019–20 Contribution Target (Year 1) and the FY2020–21 Contribution Target (Year 2).

Table 2: Indicative impacts of the increase in the ESL Contribution Target

Demand variable	Year	Change	Indicative impact
Expenditure (pre-tax) on house and contents insurance[11]	Year 1	-1.5%	~$22 million reduction in pre-tax expenditure on insurance
	Year 2	-4.5%	~$66 million reduction in pre-tax expenditure on insurance
Purchase of building insurance (for owner-occupied home) [12]	Year 1	-0.1%	~2 thousand more households without building insurance (~3% increase in non-insured)
	Year 2	-0.3%	~6 thousand more households without building insurance (~8% increase in non-insured)
Purchase of contents insurance (all households) [13]	Year 1	-0.5%	~9 thousand more households without contents insurance (~0.9 increase in non-insured)
	Year 2	-1.4%	~28 thousand more households without contents insurance (~2.6% increase in non-insured)

Commentary and considerations

The responsiveness of demand to price changes tends to increase over time. The 2015 Study, and consequently the modelling above, estimated the impact over a number of years. I would expect the magnitude of the demand response (and consequently the ESL rate increase required) to be smaller in the short-run.[14]

As the stamp duty and GST are applied after the ESL, the increases in ESL should result in some increase in the amount collected from these taxes.

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11 The baseline total pre-tax expenditure is indicatively estimated as ~$1.5 billion by extrapolating the amount and growth calculated in the 2015 Study.

12 The baseline is a potential market of 1.8 million households and 76 thousand uninsured households (based on 2015 Study and extrapolations using growth from ABS household projections).

13 The baseline is a potential market of 3 million households (estimated from ABS household projections) and 1.1 million non-insured households (extrapolated from 2015 Study).

14 This may mean in the short-run, the ESL rate increase is also smaller.

In my opinion, the estimated impacts are reasonable. Nevertheless they should be considered indicative. The impacts are estimated as the product of the demand response (as measured by the price elasticity) and the percentage change in premiums due to the ESL change. The key uncertainty is the demand response, which may depend on a range of factors. Other factors that may be relevant in this regard include:

- The direction of the price change. There is some evidence (primarily from energy markets) that consumers are more responsive to price increases than decreases.[15]
- The size of the change. I would expect—although that I am unaware of any empirical evidence—that the demand response will be greater to more significant shocks. The rate increase is significant and may attract some media attention, which may heighten the demand response.

In response to the rate increases, I expect many households will increase the excess on their cover (and may reduce the sum insured) to reduce their premium. I expect that wealthier households will have greater financial capacity to increase their excess and consequently the burden of the increase in the ESL rate will be proportionally greater on poorer households.

[15] See discussion in Tooth (2014, p. 16).

References

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