Insurance for a slightly irrational world

Insurance business is important. And so it should be, as it allows us to protect ourselves against large losses associated with events that, although infrequent, cannot be ruled out from our lives. Logically, this importance is translated into monetary terms: in 2010, insurance premiums represented the equivalent of 7% of the world's GDP, being most important in regions such as Europe, North America and Japan. Given its social and economic relevance, it's no surprise that insurance has been accompanied by a huge regulatory effort. Because of this situation, we might expect everything related to the insurance sector to be supported by the best economic theory available. But is this actually the case? Unfortunately the answer is probably in the negative.

To bring some order to such a broad field, we propose two fundamental questions that any theory must be able to answer: why does insurance exist and why does insurance regulation exist? Traditional economic theory provides us with an answer to both questions that serves as a starting point. Insurance exists because it has value for individuals. This value comes from the fact that it helps to transfer money from times when it is not very necessary to others when it might be much more so. The alternative, individual savings, is less efficient as it reserves money

THE INSURANCE BUSINESS IN 2010: GEOGRAPHICAL DISTRIBUTION	
Insurance premiums as percentage of GDP	
America	6.71
North America	7.90
Latin America	2.68
Europe	7.47
Western Europe	8.44
Central and Eastern Europe	2.62
Asia	6.16
Japan and new industrialized economies	10.64
East Asia	3.66
Middle East and Central Asia	1.51
Africa	3.86
Oceania	5.82
World	**6.89**

SOURCES: Swiss Re, Sigma Report, World Insurance in 2010.

for needs that might not occur in the future.(1) Thus far, the issue appears simple but it starts to get more complicated if we take into account the fact that there are information problems.

In any contractual relationship between the insured and the insurer, the information available to both parties is clearly asymmetrical. It's difficult for the insurance company to have information on the insured and to monitor the insured's behaviour after the insurance contract has been signed. Those who want to insure themselves are likely to take more risks than the average for the population and, once insured, tend to be less careful than those not covered by insurance. These are, known as problems of adverse selection and moral hazard, respectively.

Of course information problems are not limited to the area of insurance companies. Policyholders must also face a notable lack of information regarding aspects such as the solvency of insurers and the specific terms of their contracts. In short, the great risk for policyholders is whether, when they need it, they will actually get the promised payment (either because the company has gone bankrupt or because clauses which they were unaware of mean they are not entitled to any payout).

These problems of information are the customary justification for regulation. Regulation attempts to reduce the information problems that cannot be eliminated by the market itself. While the information problems faced by companies tend to be resolved reasonably efficiently in the private area (for example, by means of corporate policies for exemptions or overpricing certain groups that are more likely to take excessive risks), those affecting consumers usually require public regulation. In short, it is a question of helping the «private» information of

(1) In academic terms, consumers take out insurance because they are adverse to risk and because insurance is a more efficient instrument against potential losses than savings, as a means to equalize the marginal utility of consumption over time.

companies to become public (or of reducing the effort required by consumers to have this information).(2) The regulation governing most countries aims to ensure the solvency of insurers and a certain quality of contracts and their fulfillment. Some of the most usual instruments are the requirement to use standardized contracts, conditions for joining the sector, limitations to price fixing and solvency rules (usually in the form of capital requirements and other financial conditions).

All these practices would be enough if consumers, the cornerstone which the regulator is attempting to protect, behaved with the rationality expected by the theory. But we know this is not the case. In the insurance business, as in other markets, anomalies are frequent. When a high demand for insurance would be expected due to catastrophic accidents (precisely the kind of large but infrequent loss that would best warrant an insurance policy), the reality is that there is an excessively low demand for this kind of product. For example, in New Orleans only 40% of households had some kind of insurance against floods, a situation that proved to be disastrous after hurricane Katrina. However, other types of less rational situations are usually more in demand than their theoretical optimum. Frequently mentioned are insurance policies with deductibles that are too low or the extension of cover for certain consumer durables.

These anomalies are essentially due to two categories of limitations suffered by consumers. Firstly, consumers are influenced by a series of biases that affect how the value of insurance is perceived, either by underestimating it (producing a demand below the optimum level) or by overvaluing it (thereby leading to excessive demand for insurance). The first of these cases occurs due to two biases detected in the literature: what is called hyperbolic discounting (or an irrationally high preference for money in the present rather than the future) and what is known as the over-optimism bias (the ill-founded belief that negative events won't happen to us). Other biases have also been detected that can lead to consumers overvaluing insurance, such as those based on superstition (the belief that, if you take out insurance against an accident, it won't happen to you), on copying the decisions of others («herd behaviour») and an excessive emotional tie to the object or person (which is consequently over-insured).

Together with these difficulties in perceiving the right value of insurance, a second group of limitations results from the cognitive difficulty in taking decisions based on situations of risk and uncertainty. In addition to the classic behavioural regularities often mentioned in various transactions,(3) in insurance an aversion to taking certain events into account has been noted as particularly relevant (including death and other stigmatized taboos), as well as an aversion to complexity. In general terms, the outcome of these limitations to being able to process information is that people too often decide not to take out an insurance policy.

In short, in the slightly irrational (or, more accurately, imperfectly rational) world we alluded to in the title, regulation tends to defend society from the excessive presence of private information surrounding insurance transactions. However, protecting consumers from all these biases we have just mentioned is far from commonplace. One of the problems is that, as we are reminded by Baker and Siegelman, two key authors in this debate, although consumer «errors» can be detected, adequate regulation is far from easy.(4) This is because, in behavioural

(2) Nonetheless, it should be noted that, on certain occasions, these private practices end up blocking some groups out of the market. In order to avoid this situation of some people not being able to take out insurance, under certain circumstances regulation forces insurers to insure these groups.
(3) The classic reference is Kahneman, D. and A. Tversky (1979), «Prospect theory: An analysis of decision under risk», Econometrica, vol. 47, pp. 263-291.
(4) See Baker, T. and P. Siegelman (2011), «Law and Economics after the Behavioral Turn: Learning from Insurance», Flom Petrie Health Policy Workshop.

economics, the link is weak between behaviour and welfare (in the usual economic sense). For example, and remembering one of the biases mentioned above, how could regulation protect me from the fact that I get satisfaction (or reduce my anxiety) from being superstitious?

Although this issue has started to be explored academically for certain types of insurance, in general for those policies that suffer from too low or too high a demand, and which are easier to handle, the findings are a long way from being conclusive. To give an example, in 2003 in the United Kingdom, the case was studied of additional cover for electronic products. It was concluded that, in effect, this was requested to a greater extent than was rationally desirable and a proposal was made to increase competition in the sector (the report was by the Competition Reform Commission). The «behavioural» proposal which was put forward in some academic circles was to protect consumers from themselves, since they were too emotional regarding the insured object, by making it impossible to offer such extensions to cover. Clearly not a very satisfactory solution. However, as behavioural economics advances, it should be better equipped to help this world made up of the imperfectly rational consumers we are.

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