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Improving Insurance Decisions in the Most Misunderstood Industry

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Insurance is an extraordinarily useful tool to manage risk. When it works as intended, it provides financial protection to individuals and a profitable business model for insurance firms and their investors. But insurance is broadly misunderstood by consumers, insurers, and regulators.

A key challenge in designing insurance programs is to recognize the limitations of public and private decision makers when dealing with risk and uncertainty. Understanding these limitations may help policy makers create incentives that enable informed and efficient decision-making. Many of the biases and simplified decision rules that characterize human judgment and choice under uncertainty are based on feelings rather than on statistical concepts (Loewenstein et al. 2011). Everyone from an early age uses these automatic emotional responses because they usually result in reasonably good outcomes with little effort, as detailed by Nobel Laureate Daniel Kahneman in his recent book *Thinking, Fast and Slow* (Kahneman 2011).

1. Why Insurance is Misunderstood for Extreme Events

But although intuitive perceptions of risk are relatively accurate over a broad range of situations, this is not the case for unfamiliar risks that involve small probabilities and high degrees of uncertainty (Cutler and Zeckhauser 2011; Kunreuther, Pauly and McMorrow 2013). In situations of extreme events, consumers are likely to deviate from expert assessments of probability and judge the likelihood of an event by its salience (Tversky and Kahneman 2011). There is thus a tendency to ignore rare risks until after a disaster occurs.

Many consumers do not voluntarily buy coverage against potentially risky and serious losses because they feel a catastrophic loss *will not happen to them.* Only after suffering a loss will they voluntarily buy insurance, but many will cancel their policy if they haven't suffered a loss after several years. They view insurance as an investment rather than a protective measure. When one doesn't make a claim there is a feeling that the premium has been wasted.

Insurance firms also behave non-optimally. After they suffer a severe loss, they may decide that a risk is completely uninsurable rather than determining whether they should increase their premium to cover the risk. Prior to 9/11, insurers did not price terrorism risk when providing coverage against damage to commercial property. After 9/11, most insurers refused to offer any terrorism insurance because they feared catastrophic losses from future attacks. The few who did provide insurance charged extremely high premiums for it (Wharton Risk Center 2005).

To illustrate, prior to 9/11, Chicago's O'Hare Airport had $750 million of terrorism insurance coverage at an annual premium of $125,000. After the terrorist attacks, insurers offered O'Hare Airport only $150 million of coverage at an annual premium of $6.9 million. This reflected an increase in the premium per dollar coverage of over 275 percent! The airport was forced to purchase this policy since it could not operate without coverage (Jaffee and Russell 2003).

State regulators often constrain insurance premiums because they are concerned that insurance will not be affordable, especially to those who are at higher risk. In Florida, for example, the state set up its own insurance company, Citizens Property Insurance Corporation, which is structured such that homeowners residing in hurricane-prone areas are charged highly subsidized rates that undercut private insurers' premiums Kunreuther and Michel-Kerjan 2011). Over the past eight years, Citizens has become the state's largest insurer, with about 1.4 million policies at the beginning of 2013.

Behavior of this kind defeats the three main purposes of insurance:

1. Provide information via premiums as to the severity of one's risk
2. Motivate those at risk to undertake protection against an event that could produce a significant loss but has a low probability of occurrence
3. Offer incentives in the form of premium reductions to reward people who invest in risk-reducing measures

2. Guiding Principles for Insurance

To motivate consumers, insurers and regulators to properly view insurance as a way of reducing risks, there is a need for guiding principles for each of these interested parties. The following principles, discussed in more detail in Kunreuther and Michel-Kerjan (2011) and Kunreuther, Pauly and McMorrow (2013), are designed to make insurance more transparent, understandable and equitable than current policies are today:

Principle 1: Premiums reflecting risk. Insurance premiums should reflect risk to signal to individuals how healthy and safe they are and what preventive or protective measures they can undertake to reduce their vulnerability to illness and/or property losses. Risk-based premiums should also reflect the cost of capital that insurers must integrate into their pricing to ensure adequate return to their investors.

Principle 2: Dealing with equity and affordability issues. Any special treatment given to consumers at risk (e.g., low-income uninsured or inadequately insured individuals) should come from means-tested insurance vouchers. These vouchers should be financed by the federal government or at a state level through general taxes and ***not*** through insurance premium subsidies

Principle 3: Multi-year insurance. To encourage investment in preventive and protective measures, insurers should design multi-year contracts with premiums reflecting risk over a longer time horizon than the traditional annual insurance policy. The price of this insurance may be higher than single year coverage, but it would provide consumers with price stability. Regulators would have to allow insurers to charge premiums that reflect risk.

Several recent pieces of legislation have set the tone for appropriately dealing with risk. In light of the private insurance industry's refusal to provide sufficient amounts of terrorism coverage following 9/11, Congress passed the *Terrorism Risk Insurance Act (TRIA)* in 2002 so that businesses can now purchase reasonably priced terrorism coverage (Wharton Risk Center, 2005). The *Biggert-Waters Act*, passed in July 2012, authorizes major reforms to the National Flood Insurance Program over the next five years. Premiums for structures that have had repetitive flooding will reflect risk so individuals will be aware of the hazard they face. Insured individuals can be rewarded with lower rates if they undertake protective measures (see Title II in http://www.govtrack.us/congress/bills/112/hr4348/text). The *Affordable Care Act* requires insurers to offer health insurance to all U.S. residents who do not currently have coverage through either their job or a public plan. It also levies a tax penalty on those who choose to be uninsured (see http://www.govtrack.us/congress/bills/111/hr3590/text).

3. What More Can Be Done to Make Insurance a Better Policy Tool?

One way to convince people of the long-term benefits of insurance is to stretch the time horizon over which the event can occur. Studies have shown that people are much more likely to buy insurance or invest in protective measures if an event such as a hurricane that has a 1 in 100 chance of occurring next year is presented as having a greater than 1 in 5 chance of happening at least once in the next 25 years (Slovic et al. 1978; Weinstein et al. 1996).

Insurers should construct worst-case scenarios for rare events so that they would be able to determine premiums that reflect their best estimate of expected future losses. Insurers should also consider offering multi-year policies if state regulators allow them to price coverage that reflects risk over that period.

State insurance regulators should be appointed rather than elected so they are less prone to being influenced by special interest groups and lobbyists. Regulatory decisions should make transparent who stands to benefit from a subsidized insurance program, and who will be paying part of that cost to protect others.

These concepts, if followed, will increase the chances that insurance is better understood so it can fulfill the roles it is designed to play: reducing future losses and financially protecting those at risk.

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