Property Insurance Market`s Response to Catastrophic Events:

A Comparison of Personal and Commercial Lines

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Abstract

Our empirical analysis addresses some fundamental aspects of how catastrophic events affect property insurance markets. We use information on losses incurred and premiums earned by firm and by state, for all U.S. personal and commercial property insurers for the period 1984 to 2007 (NAIC data). We supplement the data with information on state regulatory requirements and the incidence, by state, of natural catastrophes, as compiled from the Swiss Re Sigma reports. This comprehensive dataset enables us to analyze the effects of catastrophic events on insurance company performance and conduct in subsequent years. We consider two main segments of the property insurance market: the personal lines (homeowners) and the commercial lines (fire, allied lines, commercial multiperil). We evaluate the role of unanticipated catastrophes (number of catastrophic events being above expectation based on the average number of events in previous years) and blockbuster events (twenty most costly catastrophes measured by total losses incurred) as they affect the underwriting performance of property insurance markets. We suspect insurers operating in the personal lines will respond differently than those operating in commercial lines due to differences in the size of exposures, treatment under state regulation, and the nature in which contracts are negotiated.

Here is the summary of our main findings: First, our analysis establishes a significant difference in the way that personal lines and commercial lines insurers respond in the aftermath of catastrophes. We show that unexpected catastrophic events have a stronger boosting effect on losses and loss ratios of homeowners insurers which should mainly be a consequence of distinct regulatory treatment. We also provide evidence that rate filing restrictions on insurers may constrain their ability to maintain underwriting profitability following catastrophic events. The regression results suggest that restrictive premium regulation aggravates risk-adequate underwriting behaviour resulting in higher loss ratios which supports the necessity and importance of further deregulation. The relatively smooth operation of less intensely regulated commercial lines insurers over our sample period suggests successful strategies for responding to catastrophic events may call for less, not more, regulation of insurer activities. We also show that there is a significant difference in the way that personal and commercial insurers` total business written develops following catastrophic events. Our report further highlights changes in the U.S. property insurance industry over the past 23 years. We present a description, and show trends, in the number and types of firms providing property coverage, and assess changes in the market structure that have important implications for the availability and affordability of property insurance coverage. Our results referring to the number of firms offering coverage obviously show that restrictive regulation has a significant impact on these issues. We conclude our paper with some preliminary implications for regulatory reform.