

Introduction

Climate Change: Impact on the Insurance Industry

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Climate change is expected to have wide-ranging impacts on the insurance industry including risk management, ratemaking and reserving. There may be increases in some types of claims (e.g., fire, flood, wind, drought), but also opportunities in green insurance products and insurance investments. The actuarial profession is considering what role it could play in addressing climate change.

On behalf of Casualty Actuarial Society, the Climate Change Committee is pleased to provide a series of essays on Climate Change: Impact on the Insurance Industry. This is the result of a call for essays on the subject.

There are seven topical essays that express the opinions and thoughts of a number of authors on the subject. An essay is, essentially, a short non-fiction form of writing expressing the often subjective opinion of the author. The thoughts and insights shared herein are not necessarily those of the Casualty Actuarial Society or the authors' employers.

Four of the papers are general overviews, starting with a call to action (Rudolph), discussion of economic theory (Gorvett), index-related (Anderson) and catastrophic risk mitigation (Chen and Eckles). The remaining three papers are more specific, with Gardner and White discussing drought, Launie discussing fire, and finally Zona, Roll, and Law summarizing the current state of green insurance.

After review and deliberation by a dedicated group of volunteer experts, the Climate Change Committee awarded prizes to:

- 1st prize: Managing Investment, Underwriting, and Production Risks from Drought-Related Agricultural Exposures by Lisa A. Gardner and Toby A. White
- 2nd prize: Peshtigo Revised by Joseph J. Launie
- 3rd prize: Sustainable/Green Insurance Products by Rita Zona, Kevin Roll and Zora Law

Overall, the essays are hopeful that climate change can be mitigated and that the world can adapt. The authors also see a role for actuaries in the impact on financial systems. Some of the themes in the essays are the impact of global activities, and the uncertainty inherent in

the increasing climate volatility.

The seven essays give us much to ponder on the topic of the impact of climate change on the insurance industry. We hope these essays will provide thought-provoking discussion and commentary in the months and years to come.