

Capital, canaries, or catalysts: Insurance industry's role in tackling climate change risks

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Mining foreman R. Thornburg shows a small cage with a canary used for testing carbon monoxide gas in 1928. Credit: George McCaa, U.S. Bureau of Mines

Throughout the 19th and 20th centuries, canaries were used in coal mines to assess the risk of toxic gases. If the birds became ill or passed away, their fate served as a warning for miners to vacate the premises.

Similarly to how a canary detects unseen risks, the insurance industry is responsible for matching assets to liabilities based upon risks, according to Francis Bouchard, the managing director for climate at the [insurance company](#) Marsh McLennan. Bouchard spoke at Duke University on November 10 to discuss the insurance sector's responsibility to tackle risks as a result of climate change.

Historically, the insurance industry has served as a catalyst to influence [safety regulations](#) for the welfare of citizens, as opposed to a canary that withers under risks. Take, for instance, the World Columbian Exposition in Chicago in 1893. It was the first time in history "anyone would deploy electricity on a large level," Bouchard said.

Therefore, an insurance company sent an engineer to examine the security of the electricity and determine the hazards for attendees. Consequently, the brightest minds of this sector banded together to create the Underwriters Laboratories, which is now the largest testing laboratory in the United States.

But more recently, the insurance sector has not acted as a catalyst in its role to address [climate risk](#). Several policies and systems "distort the purity of the risk signals insurance companies send." First, its inability to combat systemic level risks as they are providing individual incentives. The industry is highly effective in "handling individual risk and incentivizing immediate actions to address an immediate risk," Bouchard said, but this method cannot translate on a systemic level.

Second, the insurance sector provides a "temporal mismatch" as they sell 12 months of risk, but the lasting impacts of climate change will not

occur within a year. Therefore, their "ability to capture in a 12 month policy, decades worth of climate change risk is impossible."

Third, the regulations for insurance differ between states. In most states, the insurance commissioner dictates the price of insurance based upon the company's risk assessment because when "risk goes up, price of risk also goes up." When citizens cannot afford insurance, commissioners are more likely to side with the experts of the insurance companies as opposed to their disadvantaged constituents.

Finally, their climate model is not advanced enough to estimate how specific cities will change within a few decades due to climate change. Therefore, it cannot entirely predict its risks either.

The insurance industry has been successful in its asset-liability matching "in committing some of its capital to advancing climate technology or green technology." However, this sector receives "publicity around insurance companies withdrawing capital from wildfire or climate exposed jurisdiction."

This system is explained by the TCFD Filing, which was created by the Bank of International Settlements to discover insurance companies exposure to climate transition issues, physical risks from climate change, and their strategy to aid clients. Essentially, most [insurance companies](#) are not "concerned about physical risks" as they would simply reprice their 12-month insurance policy if there is a heightened threat to physical risk.

According to Bouchard, the "insurance industry has already signaled through its TCFD filings precisely what their strategy is: 'we're gonna play this game as long as we can and then we're going to withdraw.'" Therefore, an insurance company would continue to increase their cost until a person can no longer afford its price or actually endures physical

damage to which they would cease providing insurance.

"These last resort-type mechanisms are when the government steps in," Bouchard said. He even estimates that the government will control 30% of this \$1 trillion industry (\$2 trillion globally) within 10 years. This is dangerous as the government is already enduring fiscal dilemmas and will not be equipped to manage the complexity of the sector.

Bouchard, with 30 years of experience in this industry, said he "truly, truly believes in the social role that the industry plays. I'm petrified that we're not going to be there to help society cope with climate with the technical knowledge we have, the expertise we have, the mechanisms we have, and the money." If the sector continues upon this path, they will dissolve under the risks, similarly to a canary in a mine.

Francis Bouchard's work in combating climate battles with [insurance](#) is of the utmost necessity. Continued [global warming](#) will force citizens to rely on this industry for aid against climate disasters. The most recent Conference of Parties, created by the United Nations for [climate change](#) discussions, recognized the [insurance industry](#) as a "key finance player in [climate](#) transition alongside [private industry](#) and government because the world is recognizing that we have a key part to play."

Provided by Duke University

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