Building a sustainable insurance industry

Insurance Governance Leadership Network

August 2020

Building a better working world

tapestry NETWORKS

Insurance Governance Leadership Network

August 2020

IGLN VIEWPOINTS

Building a sustainable insurance industry

Despite the urgency of COVID-19, insurers are continuing to address a more slow-moving global crisis: climate change. The effects of climate change are already being felt across the globe. Insurers feel its impact in both underwriting losses and changes in asset values, not only from climate effects, but also as a result of the transition to a low-carbon economy. Insurers also face increasing pressure—from policymakers, investors, and employees—to divest carbon-intensive sectors or stop underwriting carbon-intensive activities.

During virtual meetings on June 2 and 9, 2020, IGLN participants discussed how global insurers are managing climate risk. This *ViewPoints* synthesizes the key points that emerged from both meetings and from conversations with network participants beforehand. It is organized around the following themes:

- **Responding to evolving climate risks**
- **Mitigating climate change and promoting resilience**

Responding to evolving climate risks

Climate risk presents particular challenges for insurers. It affects both sides of the balance sheet, remains difficult to measure and model, and unfolds over an extended time horizon. In addition, insurers must navigate the tension between physical risk—the direct impact of a warming climate—and transition risk—effects associated with the transition to a low-carbon economy. According to Mathew Nelson, EY's global climate change and sustainability services leader, *"The higher the transition risk, the lower the physical risk. However, if there is greater action now to address the transition, then it is less likely that we will see the worst of the physical impacts of climate change. Insurers should be pushing for action that will increase transition risk but will lessen the impact of the physical risks."*

Assessing the risks of climate change

Mr. Nelson reminded participants that the 2015 Paris Agreement calls for limiting the global average temperature rise in the 21st century to well below 2 degrees Celsius, while pursuing efforts to limit the rise to 1.5 degrees.[1] He noted that the current level of warming, 0.8 degrees Celsius above pre-industrial levels, is still below the 1.5 degree goal. Yet, he said, the effects of climate change are already apparent: *"We have already seen the results of the current warming of the planet and an uptick in weather-related events."* The years 2017–2018 represented the worst two-year period for global natural disasters on record, with insurers' losses totaling $225 billion.[2] The 2017 and 2018 California wildfires alone cost insurers $24 billion in claims,[3] erasing three decades of profits for homeowners' insurers in that state, as one IGLN participant pointed out. The increased dollar value of losses partly reflects economic growth and urbanization in disaster-prone areas, but it is clear that climate change is increasing losses from weather-related disasters.

"We have already seen the results of the current warming of the planet and an uptick in weather-related events."

– Participant

While property and casualty (P&C) insurers are more exposed to the immediate impacts of climate change on underwriting losses, life insurers are not immune to claims arising from climate effects. The World Health Organization, for instance, projects that climate change will result in 250,000 additional deaths annually during 2030–2050.[4] In an earlier network meeting, one IGLN participant pointed out that climate change is expanding the geographic areas at risk for tropical diseases, with significant implications for mortality patterns.

Because climate change increases disasters in a range of perils across geographies, it makes it difficult for insurers to diversify their risks. According to the International Association of Insurance Supervisors, climate change could result in a global "coincidence of previous[ly] un-correlated events, resulting in unexpected high claims burdens."[5] Moody's similarly concluded that "the correlation of climate-exposed risks that span P&C (re)insurers' balance sheets increases the magnitude of potential losses."[6]

The risks associated with transition to a low-carbon economy are also significant. To achieve targets set by the Paris accords, key sectors such as energy, transportation, and agriculture will need to dramatically reduce emissions. The COVID-19 pandemic presents a measure of the scale of the required transformation. Lockdowns across the globe led to a substantial reduction in greenhouse gas emissions as economies largely shut down. However, a director was quick to note that even these severe economic slowdowns did little to combat climate change overall: *"The sobering reality is that this did not move the cumulative climate change needle."* The International Energy Agency estimates that carbon emissions will fall by 8% during 2020. To meet targets set by the Paris Agreement, emissions need to fall by nearly as much—7.6%—<u>every</u> year until 2030.[7]

Such a dramatic economic transition will heavily affect asset values. Studies have shown that devaluation losses associated with achieving the Paris Agreement's "net zero" target could as high as $20 trillion.[8]

Integrating climate risk into risk management frameworks

"Once [an insurer has] a good view of their [climate risk] exposures, the key is to think about what will happen to those exposures in any given climate scenario."

– Participant

Faced with the reality of climate risk, Insurers are beginning to integrate both physical and transition risk into their risk management frameworks. One participant noted, *"Insurers are asking which sectors and geographies create the most material exposures across their balance sheets. Once they have a good view of their exposures, the key is to think about what will happen to those exposures in any given climate scenario."*

This can be difficult, because data is often lacking, and insurers vary in their ability to assess and integrate sustainability factors into a unified risk management framework. According to one participant, for instance, non-life insurers often have a more mature grasp of the physical risks of climate change than of transition risks. *"Non-life insurers understand the frequency and severity of climate change. They have been modeling nat cats* [natural catastrophes] *since the 1980s. The challenge for non-life insurers tends to be more in assessing the impact of transition risks."*

Pricing climate risk

Pricing—on both the asset and liability side—is the key mechanism by which insurers incorporate climate into their risk management frameworks.

Underwriting disaster risk and new risk models

P&C insurers generally believe that *"if we have annual renewals, then the price can be adjusted for the risk on an annual basis,"* said one participant. *"The challenge is obviously to think beyond the renewal cycle and assess the impact of it over a longer time frame.*"

In particular, while P&C insurers generally have *"confidence in existing models for nat cats, there are gaps in ensuring those models will be able to project exposures out to long-term time horizons, and different kind of perils, such as rising sea levels."* As a result, insurers are building risk models to better understand and predict the impact of climate change on weather-related disasters. One director said, *"We want to make sure we have a catastrophe model reflecting the latest science and keeping pace with what is happening with climate change."*

Similarly, in a 2018 interview, Chubb CEO Evan Greenberg elaborated on the company's changing risk model: "We invest to continually upgrade and refine our modeling and risk-management tools for catastrophes. We're using aerial imagery, modeling and drones to validate flood footprints and assess the impact of storms. We have an enterprise risk-management team with some very smart people, including Ph.D.'s, mathematicians, rocket scientists and climatologists."[9]

"A lot of insurance is based on these historic events, but now the historical data is not as useful as it was in the past. So innovation in risk-modeling technology is something we would like to see more of."

– Regulator

However, climate change makes historical weather data less useful for insurers and limits their ability to estimate future losses. Insurers acknowledge that there are significant limitations to even the most sophisticated forward-looking models and the impact of climate change remains unpredictable.

One regulator acknowledged the challenge: *"A lot of insurance is based on these historic events, but now the historical data is not as useful as it was in the past. So innovation in risk-modeling technology is something we would like to see more of."* However, some regulators are hesitant to allow insurers to use forward-looking risk models instead of prior-loss data to price policies. For example, California's insurance commissioner, speaking about wildfire risk, said, "I want to be very cautious about opening the rate-approval process to anything that compromises the transparency and objectivity that exists today. Protecting consumers is our top priority, and that is the lens we will use to evaluate any catastrophe risk models in the future."[10]

The rise of uninsurable risks

Climate change is further stressing markets for disaster insurance, *"which is already expensive and hard to write because of fat tail losses,"* as one participant pointed out. The danger is that prices can escalate only so far, and some geographic areas may become so prone to risk that they become effectively uninsurable, exacerbating what one participant called an already large *"protection gap."* According to Carolyn Kousky, executive director of the Wharton Risk Management and Decision Processes Center at the Wharton School, *"Regulators and consumers need to understand that if the risk continues to escalate, then the price will also continue to escalate." One executive said, "The insurance industry cannot change how weather patterns affect certain parts of the world. They will continue to price risks in areas that [are] becoming more and more uninsurable until they are no longer able to do so."*

The CRO Forum reported in 2019 that some coastal and forest-fringe areas in the United States "are already on the edge of uninsurability."[11] Insurers are already withdrawing coverage in high-risk areas. For instance, the California Department of Insurance reported a 10% jump between 2017 and 2018 in cancelled homeowner policies in areas most impacted by wildfires.[12] In Florida, insurers have declined to renew coverage for thousands of homeowners because of heightened risks of hurricanes and water-related damage.[13]

> *"I think we are in pretty good shape to protect the company. The question is, Who is going to protect society?"*
>
> – Director

As insurers limit their own exposures to climate risk by repricing or withdrawing coverage, difficult social questions arise. One director said, *"I think we are in pretty good shape to protect the company. The question is, Who is going to protect society?"* In some cases, policymakers may require insurers to extend coverage where it may not be economically feasible to do so. The state of California, for example, announced in December 2019 a one-year moratorium banning insurers from dropping customers in high-risk areas.[14] But IGLN participants worried that such interventions in markets would exacerbate the problem in the long run: One director noted, *"If you do not have an insurance industry that is forcing society to think about the correct pricing of risk, that is part of the issue stopping us from creating political momentum. We have problems in markets where we do not allow risk to be appropriately priced."*

Incorporating climate risk into investment frameworks

To maintain financial stability in the face of long-tailed climate risks, insurers need to integrate climate effects into investments as well as underwriting. One approach calls for excluding certain carbon-intensive sectors or activities. One participant cautioned against such an approach: *"We would not say that we would simply not invest in oil and gas, because the largest oil and gas companies are the ones investing the most in finding cleaner fuel sources. We want to continue to support them because they will have a better chance to modify their business structure and issue long-duration bonds."* An executive described a more nuanced approach: *"We are looking for our portfolio managers to make investment decisions for the long run. Fixed-income securities have long durations. We want those companies to be just as credit worthy in 20 years as they are today. For less green companies, their business models will be more at risk. That is a consideration in our investment process."*

However, participants acknowledged the difficulties in assessing how investment portfolios will be affected by climate change. Jérôme Haegeli, Swiss Re's group chief economist, noted that *"only one-third of assets you can invest in have ESG ratings. We need to increase that."* Another participant agreed: "*There have been issues in relation to being able to understand exposures among counterparties. So firms have been taking a proxy-based* *approach to looking at sectors as a whole," rather than individual* investments. The challenge is particularly acute over the long run. As Mr. Haegeli noted, *"You have to ask the questions—not only, What is the carbon footprint today, but also, How will this investment portfolio perform tomorrow?"*

> *"You have to ask the questions—not only, What is the carbon footprint today, but also, How will this investment portfolio perform tomorrow?"*
>
> – Participant

Even where ESG ratings and metrics exist, lack of standardization limits their usefulness. One director said, *"There are issues with measurement. There are a variety of different tools available, and MSCI will give one score and another tool will give a different one. There is a lot of work to be done in terms of standardizing measurement across the board."* The *Economist* recently criticized environmental, social, and governance ratings, stating that "the scoring systems sometimes measure the wrong things and rely on patchy, out-of-date figures."[15]

Sustainable underwriting and investing

Driven by pressure to act in a socially responsible manner, as well as by a desire to reduce investment risk, some insurers are reducing exposure to carbon-intensive industries. For example, at least 17 have made public commitments to phase out the underwriting of coal-related activities.[16] Several insurers have made commitments to sustainable investments, with major European insurers and reinsurers signing onto the United Nations-convened Net-Zero Asset Owner Alliance in late 2019.[17] US insurers are now beginning to incorporate such factors into their investment approaches. A US director said, *"European insurers have always been further ahead than US insurers on socially responsible investing, but at least within the last year, US insurers started to ramp this up."*

While they generally supported sustainable investment efforts, IGLN participants identified several challenges:

- **Balancing obligations to shareholders.** An executive said, *"If we decided to refuse to serve particular clients like not providing insurance to auto shippers, that would be the wrong thing to do from a shareholder perspective."* Some participants are skeptical about how deeply investors will commit to "green investments." One executive said, *"We offer sustainable investment strategies, but there*

> *"Unless there is a systemic, collective response by policymakers and politicians, there cannot be any effective planning for this transition."*
>
> – Director

Sustainable underwriting and investing

is a limit to how much we can offer before we lose shareholders and clients."

- **Limited influence.** One director said, *"We could say we won't provide insurance to the oil industry, but the big ones are self-insured anyway. We don't have as much influence or leverage on climate change; it's not the way the needle gets moved."*
- **Lack of consistency.** One participant noted, *"Some firms have taken an inconsistent approach where they integrate ESG into their asset portfolios, but their approach is not as well-developed in the underwriting framework on the liability side."*
- **Unintended consequences.** Participants also noted that short-term economic dislocations associated with the energy transition, such as increased fuel costs, might fall on those least able to bear them. Some noted that *"yellow vest"* protests in France were sparked by high fuel costs driven by a new carbon tax. Mr. Haegeli suggested that, while *"we would exclude certain industries or sectors that have a certain amount of cash flow coming from coal investments, it is wrong on the investment side solely to focus on exclusion,"* without considering the resulting economic dislocations. *"Climate change has to be managed well. The transition should not be a disruption,"* he added.

Mitigating climate change and promoting resilience

Even as each insurer works to assess and manage its own exposure to climate risk, IGLN participants agreed that broader collective action, including public policy and regulation, is required to mitigate climate change. At the same time, the sector has an important role in promoting climate resilience and furthering the transition to a low-carbon economy.

Implementing collective solutions to climate change

One director said of climate issues, "*We have to somehow act at scale and that is difficult to do outside of government action.*" Another said that, without significant regulatory and policy changes, the transition to a low-carbon economy would continue to stall: *"Unless there is a systemic, collective response by policymakers and politicians, there cannot be any effective planning for this transition."*

One issue is the need to communicate the realities of changing disaster risk to the wider public. Dr. Kousky pointed out, *"The insurance sector needs to work closely with the public sector to communicate changing disaster risk. Insurance contracts price today's risk, so insurance is not a good tool to send signals to housing and mortgage markets over the life of a building. We need separate policies for how those are communicated over time."*

"Capital charges are like traffic signs on the highway. You need to get the speed limits correct for how money is flowing."

– Participant

IGLN participants discussed two policy and regulatory tools that could foster effective action to address climate change:

- **Carbon tax.** Several participants agreed that a global mechanism for pricing carbon is a requirement for achieving meaningful action in mitigating climate change. One participant said, *"the most economically efficient process is to price carbon in the broadest way possible."* Mr. Nelson said, *"If you price the source of the risk, like greenhouse gases, then it enables you to manage the risk to price the insurance properly. The broader you go in pricing, the easier it is to manage the risk."* However, one participant pointed out that *"around the globe the politics of getting the broader population to support a carbon tax look very challenging."*

- **Capital charges.** Uniform capital charges would subject investments that are more affected by climate risks to higher capital requirements. One participant said, *"With standardized capital requirements, money will be able to flow more easily from insurers to climate-friendly investments. Capital charges are like traffic signs on the highway. You need to get the speed limits correct for how money is flowing."*

  However, participants disagreed about the feasibility of using capital charges to drive reduction in carbon emissions. One executive warned of potential consequences for fiduciary responsibilities: *"It would be very difficult to explain to policyholders why their retirement fund went bankrupt due to capital charges. Capital charges are useful in promoting the solvency of companies but there is debate about whether they are a great way to meet other social goals."* Mr. Haegeli countered that capital charges are not meant to achieve a social good, but to reflect the risk of climate change: *"If the central banks and regulators know climate change is a systemic risk, then why is it that regulatory capital charges are not more granular?"*

Promoting resilience

Despite the challenges facing the insurance industry, including its response to the COVID-19 pandemic, participants agree that the sector can promote resilience in the face of climate change.

Fostering a green recovery

"Any time there is a change in a risk profile, there is a new opportunity for a creative design or protection scheme. We will continue to see companies think of new coverage models."

– Executive

One director said insurers could play an important role in promoting environmental resiliency during the sector's recovery from the pandemic: *"There is a wonderful opportunity for insurers to play a role coming out of COVID by devoting substantial investment into better climate resiliency and green infrastructure. That will contribute to greater environmental resiliency and potential job creation."* Participants noted that insurers, especially life insurers, should be well-positioned to make long-term investments in sustainable infrastructure that can contribute to the energy transition.

Developing new coverage models

A growing protection gap provides opportunities for insurers to think creatively about extending protection to potentially uninsurable populations, especially lower-income consumers who need insurance for recovery but are least able to afford it. One executive said, *"Any time there is a change in a risk profile, there is a new opportunity for a creative design or protection scheme. We will continue to see companies think of new coverage models."*

Dr. Kousky noted a few examples of new solutions, including parametric insurance, and models that incentivize consumers to protect their assets against climate change. For example, she noted that North Carolina's public wind damage pool has found it cost-effective to provide insureds grants to fortify their roofs against wind damage because the cost of the grants is recovered through reduced reinsurance costs. Private insurers might be able to deploy similar models.

In the face of climate change, one director suggested that the insurance industry would play its traditional role of helping customers mitigate and lay off risk: *"We will continue to help our clients understand what their risks are and how they affect them, and to mitigate what they can and get coverage for what they cannot."*

About the Insurance Governance Leadership Network (IGLN)

The IGLN addresses key issues facing complex global insurers. Its primary focus is the nonexecutive director, but it also engages members of senior management, policymakers, supervisors, and other key stakeholders committed to outstanding governance and supervision in support of building strong, enduring, and trustworthy insurance institutions. The IGLN is organized and led by Tapestry Networks, with the support of EY. ViewPoints is produced by Tapestry Networks and aims to capture the essence of the IGLN discussion and associated research. Those who receive ViewPoints are encouraged to share it with others in their own networks. The more board members, members of senior management, advisers, and stakeholders who become engaged in this leading-edge dialogue, the more value will be created for all.

About Tapestry Networks

Tapestry Networks is a privately held professional services firm. Its mission is to advance society's ability to govern and lead across the borders of sector, geography, and constituency. To do this, Tapestry forms multistakeholder collaborations that embrace the public and private sector, as well as civil society. The participants in these initiatives are leaders drawn from key stakeholder organizations who realize the status quo is neither desirable nor sustainable and are seeking a goal that transcends their own interests and benefits everyone. Tapestry has used this approach to address critical and complex challenges in corporate governance, financial services, and healthcare.

About EY

EY is a global leader in assurance, tax, transaction, and advisory services to the insurance industry. The insights and quality services it delivers help build trust and confidence in the capital markets and in economies the world over. EY develops outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, EY plays a critical role in building a better working world for its people, for its clients, and for its communities. EY supports the IGLN as part of its continuing commitment to board effectiveness and good governance in the financial services sector.

Appendix

On June 2 and June 9, 2020, Tapestry and EY hosted paired IGLN virtual meetings on the COVID-19 pandemic. Prior to that, Tapestry and EY hosted four conference calls on March 27, April 9, April 24, and May 15, 2020 to discuss the pandemic. In those virtual meetings and conference calls, and in preparation for them, we conducted numerous conversations with directors, executives, regulators, supervisors, and other thought leaders. Insights from these discussions inform this *ViewPoints* and quotes from these discussions appear throughout.

The following individuals participated in these discussions:

IGLN Participants

- Doug Allen, Assistant Vice President, Enterprise Risk Management, State Farm
- Amy Bally, Vice President, Risk Management, State Farm
- Marty Becker, Former Chair of the Board, QBE
- Matt Brewis, Director, General Insurance and Conduct Specialists, Financial Conduct Authority
- Douglas Caldwell, Executive Vice President, Investment Risk, Model Risk, Governance & Reporting and US CRO, MetLife
- Marcia Campbell, Non-Executive Director, CNP Assurances; Risk Committee Chair, Canada Life Group
- Jeff Campbell, Non-Executive Director, Aon
- Jan Carendi, Non-Executive Director, Lombard International Assurance
- Alison Carnwath, Audit Committee Chair, Zurich Insurance Group
- Carolyn Dittmeier, Chair of Statutory Auditors, Generali
- Sara Grootwassink Lewis, Audit Committee Chair, Sun Life Financial
- Jérôme Haegeli, Group Chief Economist, Swiss Re Institute
- Mark Hoban, Chair of the Board, Flood Re
- Sheila Hooda, Non-Executive Director, Mutual of Omaha; Nominating and Governance Committee Chair, ProSight Global
- William Kane, Audit Committee Chair, The Travelers Companies; Audit Committee Chair, Transamerica
- Sue Kean, Non-Executive Director, Utmost Life and Pensions

- Carolyn Kousky, PhD, Executive Director, Wharton Risk Center, University of Pennsylvania
- Joan Lamm-Tennant, CEO, Blue Marble Microinsurance; Non-Executive Director, Equitable Holdings and Hamilton Insurance Group
- John Lister, Risk Committee Chair, Old Mutual, Pacific Life Re, and Phoenix Life
- Mike Losh, Audit Committee Chair, Aon
- Roger Marshall, Audit Committee Chair, Pension Insurance Corporation
- Nathan Moss, Chair of the Board, Wesleyan Assurance Society; Non-Executive Director, Canada Life Group
- Fausto Parente, Executive Director, European Insurance and Occupational Pensions Authority
- Kevin Parry, Chair of the Board, Royal London
- Debra Perry, Finance and Risk Committee Chair, Assurant; Non-Executive Director, Genworth Financial
- Andrew Pryde, Chief Risk Officer, Beazley
- Sabrina Pucci, Non-Executive Director, Generali
- Alessandrea Quane, Executive Vice President and Chief Risk Officer, AIG
- David Roberts, Chair of the Board, Beazley
- Teresa Roseborough, Non-Executive Director, Hartford
- Ted Shasta, Non-Executive Director, Chubb
- Nicholas Silitch, Senior Vice President and Chief Risk Officer, Prudential Financial
- Eric Spiegel, Audit Committee Chair, Liberty Mutual
- Bob Stein, Audit Committee Chair, Assurant; Audit Committee Chair, Talcott Resolution
- Scott Stoll, Audit Committee Chair, Farmers Group; Audit Committee Chair, Farmers New World Life Insurance Company
- Anna Sweeney, Executive Director, General Insurance Supervision, Bank of England
- Tom Wilson, Global Chief Risk Officer, Allianz

EY

- Kabari Bhattacharya, Associate Partner and EMEIA Insurance Sustainability and Resilience Leader
- John Latham, Global Client Service Partner
- Ed Majkowski, Americas Insurance Sector and Consulting Leader
- Peter Manchester, EMEIA Insurance Leader and Global Insurance Consulting Leader
- Mathew Nelson, EY Global Climate Change and Sustainability Services Leader
- Isabelle Santenac, Global Insurance Leader

Tapestry Networks

- Eric Baldwin, Principal
- Jonathan Day, Vice Chair
- Marisa Roman, Associate

Endnotes

[1] *Paris Agreement*, United Nations Framework Convention on Climate Change, (Paris: December 12, 2015).

[2] Andy Stone, "Insurers Struggle to Address Climate Change," *Forbes*, January 30, 2020.

[3] Stone, "Insurers Struggle to Address Climate Change.".

[4] World Health Organization, "Climate Change and Health," fact sheet, February 1, 2018.

[5] International Association of Insurance Supervisors and the Sustainable Insurance Forum, *Issues Paper on Climate Change Risks to the Insurance Sector* (Basel

Switzerland: IAIS c/o Bank for International Settlements, 2018), 14.

[6] Moody's Investors Service, *Climate Change Risks Outweigh Opportunities for P&C (Re)insurers* (New York: Moody's Corporation, March 15, 2018), 2.

[7] Sarah McFarlane, "Covid-19's Environmental Benefits Evaporate as World Reopens," *Wall Street Journal*, July 9, 2020.

[8] Network for Greening the Financial System, *A Call for Action: Climate Change as a Source of Financial Risk*, (France: NGFS Secretariat/Banque de France, April 2019), 17.

[9] Leslie Scism, "Big New Challenge for Insurers: Extreme Weather," *Wall Street Journal*, August 12, 2018.

[10] Christopher Flavelle and Brad Plumer, "California Bans Insurers from Dropping Policies Made Riskier by Climate Change," *New York Times*, December 5, 2019.

[11] CRO Forum, *The Heat Is On: Insurability and Resilience in a Changing Climate* (Amsterdam: CRO Forum, January 2019), 7.

[12] Flavelle and Plumer, "California Bans Insurers from Dropping Policies Made Riskier by Climate Change."

[13] Beth DeCarbo, "When Your Insurer Decides Your Home Isn't Worth The Risk," *The Wall Street Journal*, December 11, 2019.

[14] DeCarbo, "When Your Insurer Decides Your Home Isn't Worth The Risk," *The Wall Street Journal*.

[15] "Climate Change Has Made ESG a Force in Investing," *Economist*, December 7, 2019.

[16] Don Jergler, "Are Employees Pushing Insurers to Shun Coal in Climate Change Movement?" *Insurance Journal*, November 7, 2019.

[17] "UN-Convened Net-Zero Asset Owner Alliance," UNEP Finance Initiative, accessed May 11, 2010.