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AM BEST'S MONTHLY INSURANCE MAGAZINE

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BEST'S REVIEW®

May 2019 • Volume 120 • Issue 5 www.bestreview.com

AM BEST'S MONTHLY INSURANCE MAGAZINE

Coming Into FOCUS

Traditional and nontraditional data—from credit ratings and motor vehicle records, Yelp reviews, social media and wearable devices—give insurers a clearer picture of risk than ever before. But insurers must navigate regulatory and privacy concerns. **Pages 28-57**

A Sharper Image

From the Editor's Desk: Insurers gain a clearer picture of risk with their use of data. May's issue also looks at industry innovation and how an insurer is hoping to alleviate concerns about the reintroduction of the Eurasian lynx in England and Scotland.

In *The New York Times* last month, the headline read: At Cosmopolitan Magazine, Data Is the New .... (Use your imagination.)

Data, it seems, is on everyone's mind. What is being collected? How is it being used? Who has it and what are they doing with it? At *Cosmopolitan*, the story is about a new editor's drive to boost the magazine's online statistics.

While *Cosmopolitan* collects data about the types of stories that website readers prefer, other businesses have other data interests.

There's no shortage of information. Siri and Alexa are always listening. Our cars record how we drive. What we buy each week at the grocery store is recorded via store loyalty programs. All of this information forms a picture about us, our health, our driving habits and personal responsibility.

For insurers, that kind of information can help them to better price risk, expand into new markets, identify fraud and control costs.

But there are catches.

May is Data and Advanced Analytics Awareness Month. Insurers are searching for new and unconventional forms of information to replace outdated static sources.

To find out more about the data insurers should be using, and the little black box that's most likely hidden in your car, read "The Wild West of Data."

How did a reinsurer use information about deer population density to help a client make decisions about its business? Find out in "Data Driven."

Life insurers and health insurers also are looking at how they can make the best use of the new data available to them. Read "A Revolution in Underwriting" and "Weighing in on Wearables," to find out more.

Unconventional data is now coming from innovative new technology such as wearables and social media. Insurers have been exploring technology such as artificial intelligence, blockchain and machine learning, as they seek to improve their businesses.

In "AM Best Assesses Innovation in Draft Criteria," AM Best explains its draft criteria on innovation. In "Looking Beyond Technology," James Gillard, AM Best senior managing director, criteria, research and analytics, discusses the new innovation criteria.

At the InsureTech Connect conference in Las Vegas, AMBestTV gathered executives from Munich Re, Sompo Holdings and AM Best for a panel discussion about innovation. "Technology and Innovation" is an excerpt of that discussion.

Innovation can take many forms—and not all of it is high-tech. To reduce the overpopulation of deer in England and Scotland, for instance, Lynx UK Trust wants to reintroduce the Eurasian lynx. Sheep farmers are uneasy about this idea. Find out how insurance is playing a role in "Into the Wild."

To read these and other features on your laptop or mobile device, go to *www.bestreview.com.*

Patricia Vowinkel
Executive Editor
patricia.vowinkel@ambest.com

The Question:

Is broker consolidation a good thing for the insurance industry?

Email your answer to *bestreviewcomment@ambest.com*.

Reader responses will be published in a future issue.

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Best's Review looks at how insurers are moving from outdated, static data sources to dynamic, real-time information about the risks they are covering.

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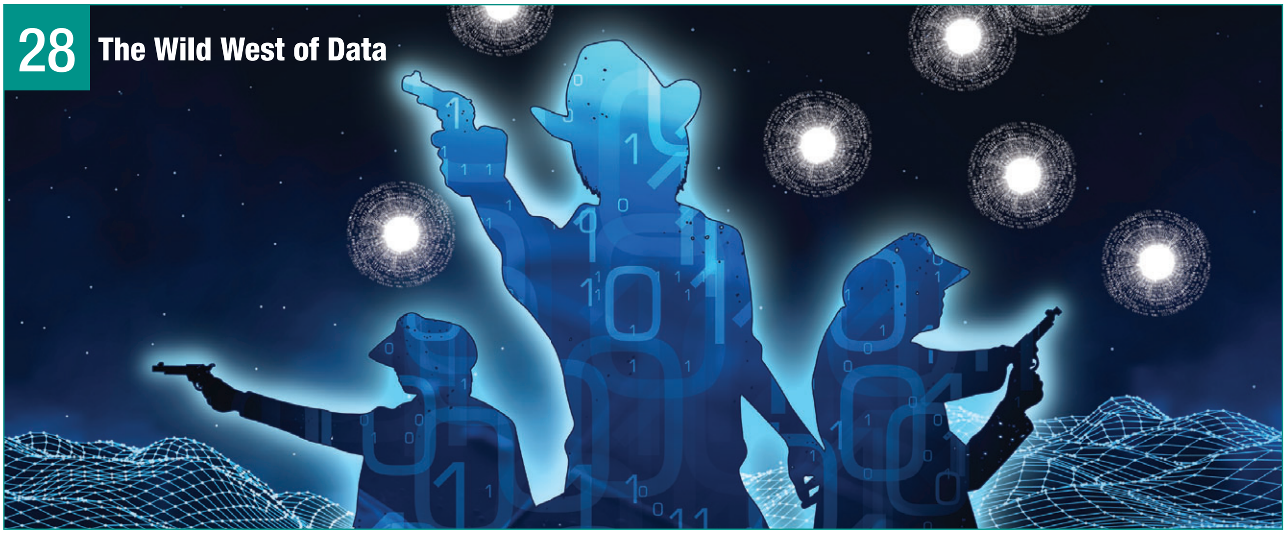
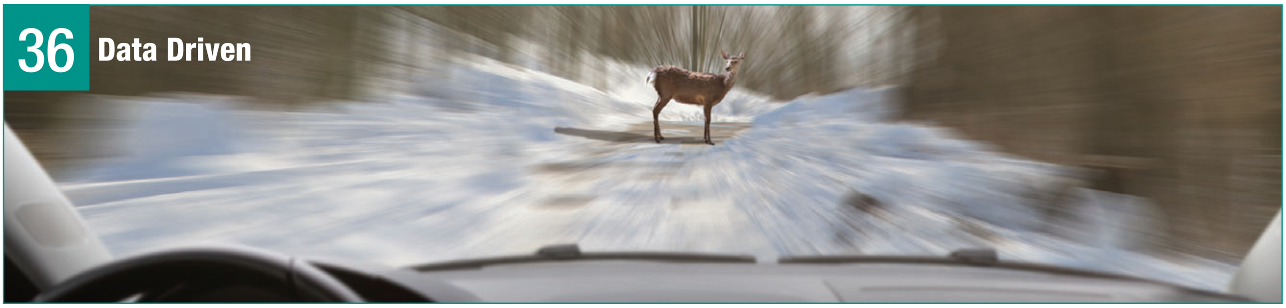


36 Data Driven



COLUMNS

DEPARTMENTS

Cover design by Andrew Crespo

Data Challenge

Best's Review recently asked readers: What are the biggest risks insurers face with the use of new data and predictive analytics?

I think within the insurance industry, the mental work has been steeply increasing. I see two risks that insurers have to face with the rise in new data types and predictive analytics.

First and foremost, it will be training lots of people on advanced uses of computers. Secondly, explain/prove to regulators in plain English that the decision of accepting or rejecting a risk is not from a human bias but from an objective reasoning inside the computer. I think the legal battles will rise with more system-driven decisions and the ultimate onus will still be upon the insurer.

Pranav Sirvaiya, CPCU

Insurance Domain Lead, ValueMomentum Inc.
Erie, Pennsylvania

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Effects of Social Media, IoT

AM BestWebinars

An AM Best webinar examines how social media is increasingly being used in insurance claims investigations. Also, panelists look at new technologies such as the internet of things that are poised to further transform homeowners coverage.

On Demand

How Social Media Is Changing Insurance Claims

Legal and insurance claims experts will examine the advantages, pitfalls and judicial implications that social media is having on policyholders, the claims process and insurers. (Now available.)

Rating ILS-Affiliated Collateralized Reinsurers

AM Best analysts examine how they rate ILS-affiliated collateralized reinsurers. Reinsurers of this type are relatively new but are expected to become a larger share of the reinsurance sector as they seek greater operational efficiency, elimination of fronting fees, and more flexibility in tailoring their offerings to cedants. (Now available.)

How the Internet of Things Is Remaking Homeowners Insurance

A panel of technology and insurance experts will examine how homeowners insurers are leveraging sensors, monitors and data to build better coverages and provide more value to insureds. (Now available.)

Streaming Live

State of the Medical Professional Liability Market

AM Best senior analytic personnel and insurance industry leaders review the state of the U.S. medical professional liability insurance sector.

Tuesday, May 7, 2019, 2 p.m. EDT

How Portfolio Managers Are Leveraging Equity Enhanced Fixed Income

A panel of insurance portfolio management experts will examine how pairing fixed income securities with equity options offers new opportunities for growth. Sponsored by Invesco.

Wednesday, May 8, 2 p.m. EDT

View These and Other AM Best Webinars

- Transforming Insurance Business Through Data, Machine Learning and AI
- What Insurers Should Know About Trends Transforming Asset Management
- The Future of Claims Management
- Sudden Impact: How Insurers Are Dealing With the Rise in Head Injury Claims

For details or to register for webinars, go to *http://www.ambest.com/conferences/webinars.asp*

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To order more copies of the 2018-2019 *Best's Guide to Understanding The Insurance Industry* go to *https://www.amazon.com/dp/1729526942.*

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AMBestTV

Captives' Association Meets in Arizona

Also on AMBestTV, Novarica's Wein on Boeing's woes and AM Best's Keenan on insurtechs and innovation. AMBestRadio presents discussions on leadership skills and blockchain.

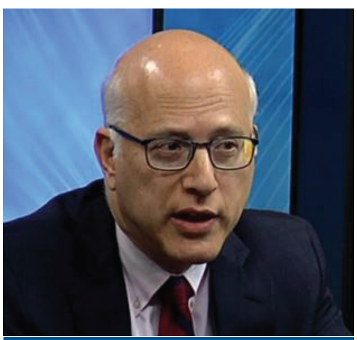
On Demand

'A Black Eye for the Industry:' Spirit Commercial Auto RRG Insolvency Talk of CICA

The demise of the Nevada-based Spirit Commercial Auto Risk Retention Group, which was taken into receivership Feb. 27, 2019, and how it might impact the insurance industry was the preferred topic of discussion at the Captive Insurance Companies Association's International Conference in Tucson, Arizona. (March 11, 2019)

Novarica's Wein: Boeing's Woes Hold Lessons for Insurers

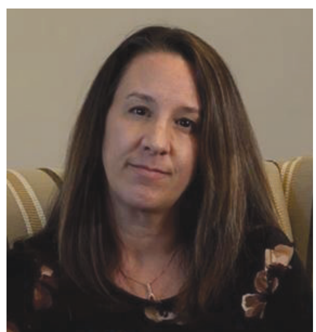
Mitch Wein, senior vice president, Novarica, said insurers increasingly rely on sophisticated software systems, making them vulnerable to operational and reputational issues in the event of failure. (April 1, 2019)



Mitch Wein

AM Best Examines How Tech Is Impacting Insurance Innovation

AM Best's Andrea Keenan visits insurtech start-ups to show how technology-enabled innovation is remaking the insurance industry. (April 16, 2019)



Andrea Keenan

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AMBestRadio®

Learning to Lead

AMBestRadio presents discussions on a unique way to learn leadership skills, better management.

Don't Lose Sight of Overall Exposure Cyber Aggregation

Fred Eslami, AM Best associate director, and Scott Hammesfahr, product marketing manager, Guidewire Cyence Risk Analytics, said cyber coverage continues to grow, with insurers and captive sponsors exposed to a wider range of risks and accumulation. They spoke with AMBestTV at the Captive Insurance Companies Association's International Conference in Tucson, Arizona. (March 14, 2019)


Fred Eslami

'A Sledgehammer to Crack the Nut:' New Captive Regulations Need Proportional Approach

Paul Owens, chief executive officer of the global captive practice for Willis Towers Watson, said regulators need to take a proportional approach to an increasing amount of captives oversight worldwide. He spoke with AMBestTV at the Captive Insurance Companies Association's International Conference in Tucson, Arizona. (March 11, 2019)


Paul Owens

Axis Broker: Reality TV Stint Helped Build Business Leadership Skills

Thea Vanherwaarden, managing director, Axis Insurance private client group, said her stint as a contestant on Canada's *MasterChef* helped boost her leadership skills in the insurance industry.

Panel: Blockchain Already a Presence In Captive Insurance Sector

A panel of captive insurance experts gathered by AMBestTV at the Captive Insurance Companies Association's International Conference in Tucson, Arizona, said blockchain technology is already helping a logistics company better manage its captive-insured risks.

Find AMBestRadio at *www.ambest.com/ambradio.*

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'Collaboration' Is the Theme of the 82nd Annual NAIIA Conference; Big 'I' Meets in Washington

May 1 – 2: NCIGF Annual Conference, National Conference of Insurance Guaranty Funds, Chicago.

May 1 – 3: ICA Spring Meeting, International Claim Association, Destin, Fla.

May 1 – 3: Customer Experience Conference, LOMA, San Antonio.

May 3: Annual Forum of the Insurance Industry in Puerto Rico, Puerto Rico CPA Society, San Juan, Puerto Rico.

May 6 – 8: NAMIC Directors' Bootcamp 2.0, National Association of Mutual Insurance Companies, Winter Park, Fla.

May 6 – 8: TMPAA Mid-Year Meeting, Target Markets Program Administrators Association, Baltimore.

May 6 – 9: NAIIA 82nd Annual Conference, National Association of Independent Insurance Adjusters, Orlando, Fla.

May 8 – 10: Big "I" Legislative Conference, Independent Insurance Agents & Brokers of America (IIAB), Washington, D.C.

May 10 – 11: IBBA Annual Conference, International Business Brokers Association, Orlando, Fla.

May 13 – 15: NCCI Annual Issues Symposium, National Council on Compensation Insurance, Orlando, Florida.

May 13 – 16: RMS Exceedance, Risk Management Solutions, Miami.

May 14 – 15: 29th Convention of Insurers, Mexican Association of Insurance Institutions (AMIS), Hidalgo, Mexico.

May 15: 6th International Insurance Industry Summit, Asociacion de Aseguradores de Chile, Santiago, Chile.

May 19 – 21: ALIC Annual Meeting, Association of Life Insurance Counsel, Palm Beach, Fla.

May 19 – 22: CAS Spring Meeting, Casualty Actuarial Society, New Orleans.

May 20 – 22: Western Region Captive Insurance Conference (WRCIC), Scottsdale, Ariz.

May 27 – 29: 13th Asian Insurance CFO Summit 2019, Asia Insurance Review, Singapore.

May 29 – 31: The Marketing Conference, LIMRA, Boston.

June 1 – 5: Farm Bureau Insurance Managers Conference, American Agricultural Insurance Co., Jackson Hole, Wyo.

June 2 – 4: IAC Conference, 39th Annual Caribbean Insurance Conference, Insurance Association of the Caribbean, Cancun, Mexico.

June 2 – 5: IASA Educational Conference & Business Show, Insurance Accounting and Systems Association, Phoenix.

June 2 – 5: National Flood Conference, American Property Casualty Insurance Association (APCIA), Washington, D.C.

June 3 – 7: NAIC/NIPR Insurance Summit, National Association of Insurance Commissioners and National Insurance Provider Registry, Kansas City, Mo.

June 9 – 12: PRIMA 19 Conference, Public Risk Management Association, Orlando, Fla.

June 10 – 12: Bermuda Captive Conference, Bermuda Business Development Agency, Southampton, Bermuda.

June 11 – 14: International Conference on Risk and the Insurance Business in History, Microinsurance Network, Seville, Spain.

June 12 – 14: IICF Women in Insurance Global Conference, Insurance Industry Charitable Foundation, New York.

For a full list of conferences and events, visit *www.ambest.com/conferences/index.html*

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May: Data, Analytics Awareness

May is Data and Advanced Analytics Awareness Month. Insurers are shifting to next-generation data sets to assess and price risk, searching for new and unconventional forms of information to replace outdated static sources. The industry remains cautious, however, in light of privacy concerns. See stories on pages 28-57.

UK Property/Casualty Underwriter Direct Line Names CEO

Also: H.W. Kaufman Group appoints its first chief compliance officer, MetLife makes executive changes; and founder of NAPSLO dies at 87.

Penny James has been named the next chief executive officer of Direct Line Insurance Group plc and will succeed Paul Geddes at the conclusion of the insurer's annual general meeting on May 9.

Geddes will step down as a member of the board following the annual meeting and will leave the group at the end of July, Direct Line said in a statement. He has been Direct Line's CEO for 10 years.

Penny James

James is the current chief financial officer of Direct Line. The company said it has launched a search for a new CFO.

"The board is confident that Penny is ideally suited to leading the delivery of DLG's short-term strategic imperatives, including technological and business transformation, and the development of the next stage of our strategy," Mike Biggs, chairman of Direct Line Group, said in a statement.

James was appointed to Direct Line's board in November 2017 and became CFO in March 2018.

She was previously with Prudential plc, where she was group chief risk officer and a member of the board. She had previously been Prudential's director of group finance, group CFO of Omega Insurance Holdings plc and CFO of U.K. general insurance at Zurich Financial Services, where she held a number of senior finance roles.

She was also an independent nonexecutive director of Admiral Group plc from 2015 to 2017.

—David Pilla

H.W. Kaufman Group Creates First Chief Compliance Officer Post

Burns & Wilcox parent company H.W. Kaufman Group has appointed Kori Johanson as its first chief compliance officer as it expands globally.

She will oversee the company's compliance team and be responsible for corporate and regulatory compliance, government affairs and state insurance taxation for Kaufman and its subsidiaries.

Kori Johanson

Johanson brings more than 20 years of experience in corporate compliance, regulatory and government affairs, most recently at high net worth carrier Pure, where she was associate general counsel in charge of compliance and regulatory operations.

Earlier, she served as chief compliance officer at Acord, and was at Travelers Insurance for 15 years.

Lockton Appoints Execs to New Global Re Business and in Asia-Pacific

Lockton Inc. has appointed three Marsh & McLennan Cos. executives to lead a new global reinsurance unit, Lockton Global Re.

It will operate from New York and incorporate the broker's London-based specialty team. Guy Carpenter's chief executive officer of North America operations, Tim Gardner, will serve as CEO of Lockton Global Re. The company also appointed Claude Yoder, Guy Carpenter's managing director and global chief innovation and product development officer, and Marsh captive solutions President Mick Durant to executive positions within the new business.

Gardner has more than 20 years of reinsurance and insurance business experience with Marsh & McLennan Cos., where he has held multiple leadership positions, including Marsh head of international sales and risk management segment global leader.

Yoder joined Marsh in 2011 after spending nearly 20 years at carriers. He has primary insurance, underwriting, risk management, product development and research and development experience. Earlier, he was head of Marsh global analytics.

Durant spent 20 years working on reinsurance analytics and earlier was Marsh's global analytics sales leader.

Earlier, Philip Corrigan was named regional chief operations officer for Lockton Cos., as the broker looks to expand its business and expertise across the Asia-Pacific region.

Corrigan has more than 30 years of industry experience, including 15 years of experience leading insurance teams in the Asia-Pacific region. He has spent much of his career at Jardine Lloyd Thompson and worked for the firm in managerial roles in Indonesia, Vietnam and South Korea, Lockton said. Most recently he was CEO of JLT Thailand.

Artex Co-Founder Rejoins Company as CEO

Peter Mullen has rejoined Artex Risk Solutions Inc., the company he helped found, as chief executive officer.

He succeeds David McManus, who will assume the new role of chairman of the Arthur J. Gallagher & Co. subsidiary.

Previously, Mullen was CEO of Aon Captive & Insurance Management. His return was announced last year and delayed by contractual obligations to the company. At the time, Artex said Mullen would serve as CEO-elect until July 1, 2019.

Mullen, McManus and Jennifer Gallagher founded Artex in 1997.

RSA Insurance Names Chief Financial Officer

RSA Insurance Group plc. named Charlotte Jones as chief financial officer.

Charlotte Jones

She replaces Scott Egan, who became chief executive officer of RSA's U.K. and international division on Feb. 5. She will also serve on the board as an executive director, reporting to Group CEO Stephen Hester. Her appointment is subject to regulatory approval.

Jones is expected to begin the CFO position by summer 2019. She is currently CFO of Jupiter Fund Management plc, which she will leave to take up her new role at RSA.

Currently a nonexecutive director of RSA, Jones is a member of the group audit and board risk committees. She will continue as a nonexecutive director but will no longer be considered independent. In this capacity, she will continue as a member of the board as well as an attendee at the group audit and risk committees.

MetLife Makes Executive Changes In Connection With CEO Transition

MetLife Inc. made several executive appointments in connection to the coming change in its chief executive officer.

Ramy Tadros

Ramy Tadros was appointed as president of U.S. business. Marlene Debel will succeed him as chief risk officer and Graham Cox will succeed Debel as head of retirement and income solutions, the company said in a statement. All appointments are effective May 1, when Michel Khalaf succeeds retiring President and Chief Executive Officer Steven Kandarian.

Tadros succeeds and reports to Khalaf. He joined MetLife in September 2017 from Oliver Wyman, where he was a partner and global head of insurance. Tadros has more than 20 years of experience advising global life and property/casualty insurers on strategy, product, distribution and finance.

Debel, currently an executive vice president, joined MetLife in 2011 from Bank of America, where she was global head of liquidity risk management and rating agency relations. Earlier, she spent 20 years at Merrill Lynch & Co. She served as treasurer and chief financial officer for U.S. business prior to leading RIS at MetLife. Debel also will report to Khalaf.

Cox, currently an executive vice president in global risk management, will report to Tadros. He joined the company in 1995 as an actuary, MetLife said, and has since overseen the insurer's group life product portfolio and the product and operations unit of the former international business. He served as head of Western Europe.

Khalaf is also president of MetLife Europe, Middle East and Africa. Dirk Ostjin, senior vice president and head of EMEA, will continue to manage the region under Khalaf's direction, MetLife said.

NJM Appoints Chief Financial Officer

Chris Malone has been appointed chief financial officer of NJM Insurance Group. He succeeds Alastair Shore, who is no longer with the company.

Malone brings more than 25 years of experience, most recently as Ameriprise Auto & Home insurance vice president and lead financial officer. He led the company's financial, data analytics, workforce planning, vendor management and quality assurance operations.

Earlier, he held leadership positions at Plymouth

Rock Assurance Co., Travelers Cos. and Hartford and has worked in finance, product management, field operations and marketing.

Malone will oversee NJM's financial and actuarial departments and will be a member of NJM's executive leadership team, reporting to President and Chief Executive Officer Mitch Livingston.

Marsh Names Sharing Economy And Mobility Practice Leader

Robert Bauer has joined Marsh as practice leader for its U.S. sharing economy and mobility practice.

Robert Bauer

He will focus on developing and delivering products and services to companies operating in the new economy, working with experts across Marsh, including the company's digital, data and analytics team, the insurance broking and risk management solutions firm said in a statement. The role Bauer is assuming has been expanded to include mobility.

Bauer joins Marsh from American International Group, where he was most recently general insurance head of innovation and its sharing economy group.

He is based in San Francisco and reports to Jeffrey Alpaugh, growth and industry leader for Marsh's U.S. and Canada division. Marsh is a subsidiary of Marsh & McLennan Cos.

Lloyd's Names Head of Global Operations

Lloyd's has appointed Hayley Spink as head of global operations.

Hayley Spink

In her new role, Spink will provide operational leadership for Lloyd's internal and marketwide programs. She succeeds Joe Dainty, who leaves Lloyd's in March to join DXC.

She reports to Chief Operating Officer Shirine Khoury-Haq.

Spink joined Lloyd's in 2007 and has held a variety of operational leadership roles where she has implemented and overseen Lloyd's operations in locations including Dubai, India, China, Malaysia, Colombia and Mexico.

Pioneer Underwriters Appoints US CEO

Pioneer Underwriters has appointed Nick Greggains as chief executive officer of its U.S. operation. He will be based in New York and will report to Andrew McMellin, Pioneer Group CEO.

Gene Hinman, the current U.S. CEO, will become president of Pioneer U.S. until his retirement at the end of 2019. When Hinman retires, that president's role will merge into Greggains' U.S. CEO role.

Greggains has 30 years of insurance industry experience, mainly with a U.S. focus. Beginning in 2007, he was U.S. chief underwriting officer at Catlin before Catlin's merger with XL Group. He then became director of underwriting at XL Catlin Americas and CEO of XL Catlin Canada.

Charles A. McAlear, Founder Of NAPSLO, Dies at 87

Charles A. McAlear, a founder of the National Association of Professional Surplus Lines Offices, died March 12 at his home in South Haven, Michigan. He was 87.

Charles A. McAlear

McAlear worked as a chartered property/casualty underwriter, and founded McAlear Associates, a wholesale insurance brokerage firm in Grand Rapids, Michigan. During that time, several states had surplus lines associations, but none represented the industry on a national level, according to the Wholesale Specialty Insurance Association, NAPSLO's successor organization. In the early 1970s, McAlear initiated the effort to form a nationwide association.

In 1975, NAPSLO was incorporated in New York. It held its first annual meeting in November 1975, where McAlear was elected the association's first president. He would serve two years. NAPSLO in 1994 renamed its award honoring individuals who made significant contributions to the surplus lines industry the Charles A. McAlear Industry Award, WSIA said.

WSIA itself was formed in 2017 with the merger of NAPSLO and the American Association of Managing General Agents.

McAlear continued working in the field until his retirement in 1987. In 1994, he became a charter member of the Michigan Insurance Hall of Fame.

Born in Bay City, Michigan, he served as a U.S. Army corporal during the Korean War, according to his obituary. He learned Mandarin Chinese at the Army Language School before being deployed, it said. He studied at the University of Michigan, from which he received his bachelor's and master's degrees.

McAlear was the author of two books, one of which, *Reappraising China, Redefining Literacy*, was published in November.

Service American Indemnity Names COO


Steve Collier

Service American Indemnity Co. and Service Lloyds Insurance Co. have officially named Steve Collier as chief operating officer for SAIC, which officially launched March 1.

His appointment became effective with the founding of SAIC on March 1, 2018, the result of the acquisition by Service Lloyds' parent company, Service Insurance Holdings Inc., of American Healthcare Indemnity Co. The purchase gave Service Insurance Holdings the licensing needed to expand across the United States.

Collier will be responsible for leading SAIC operations and the company's overall strategy and execution of its national expansion.

Collier has 40 years of experience in a variety of executive roles and most recently held the position of vice president of underwriting and managing director for Service Lloyds Insurance. He joined Service Lloyds in 2000.

Illinois Governor Names New Insurance Department Director

Illinois Gov. J.B. Pritzker, has named Robert Muriel as the new director of the state Department of Insurance.

He succeeds acting Director Kevin Fry, who stepped in when former Chief Operating Officer Karin Zosel temporarily took the post in late 2018. The appointment is pending state Senate confirmation.

Muriel is a civil and commercial lawyer with more than 20 years of experience representing small businesses in trials, appeals and arbitrations in state and federal courts.

According to the governor's office, Muriel's core practice is civil and commercial litigation, including insurance coverage and bad faith claims, financial fraud claims, legal malpractice cases and consumer class-action cases, including actions brought under the Fair Debt Collection Practices Act.

Lloyd's Broker THB Names CFO

Kay Smith joined THB Group as group chief financial officer as the specialist insurance and reinsurance broker also announced senior board appointments.

Smith takes over the CFO role from Rob Wilkinson, who becomes commercial director.

Smith held a number of senior financial positions in the insurance broking sector, most recently at Arthur J. Gallagher in London. She was previously at Towergate.

The THB board also appointed a new chairman, Malcolm Beane. He has been a nonexecutive director with THB for more than two years and serves as chairman of the audit committee.

A new nonexecutive director, Jane Comerford, also joined THB. She has about 40 years of experience in broking, underwriting and MGA operations.

Axa XL Names Underwriting Manager For War, Terrorism and Political Violence

Axa XL named Morgan Shrubb as underwriting manager to its U.S. terrorism insurance team, as the commercial and specialty unit of Axa S.A. cites increased demand for coverage in the market.

Shrubb joined Axa XL Insurance's U.S. crisis management and special risks team as underwriting manager for war, terrorism and political violence, and will report to Daniel O'Connell, global head of war, terrorism, political trade and violence. She will be based in Atlanta and will be responsible for the management, marketing and underwriting of specialized war, terrorism and political violence insurance including standalone U.S. terrorism policies, active assailant insurance, and chemical, biological, radiological and nuclear coverage.

Shrubb joins Axa XL from Ironshore International, where she was a production specialist charged with growing the company's war, terrorism and political violence book of business on the West Coast, said Axa XL. She began her underwriting career at Hiscox USA.

USAA Chief Operating Officer Appointed Incoming CEO at AutoNation


Carl Liebert

USAA Chief Operating Officer Carl Liebert has been appointed chief executive officer and president of automotive retailer AutoNation Inc.

USAA has not yet named a successor, according to a spokesman.

Liebert joined USAA in 2013 from 24 Hour Fitness, where he was CEO. He was president of USAA Capital Corp. and was named COO a year later at USAA when Stuart Parker was appointed CEO. BR

What You Need

Liberty Mutual debuts two new advertising spokesmen and American Family Insurance unveils the second ad in its “This Dream” campaign.

Feathered Friend

LIBERTY MUTUAL has a new feather in its cap with an ad campaign that features LiMu Emu and Doug—a duo of ’70s-styled detectives who feel it’s a crime when people pay too much for insurance.

The campaign features a series of TV commercials, radio ads and digital extensions that feature the team who spread the message that Liberty Mutual offers customized insurance where customers pay only for what they need.

“Prior to the campaign we talked to consumers about their perspectives of insurance and we discovered people generally fall into two camps: those who are afraid their policies have coverage loopholes and those concerned they could have too much coverage. That’s where the brand positioning came from—that Liberty Mutual customizes your insurance so you only pay for what you need,” said Emily Fink, chief marketing officer for global retail markets (U.S.) at Liberty Mutual.

The ads are running in conjunction with the brand’s “Truth Tellers” campaign that debuted in 2014.

Fink and her team wanted to experiment with several new features in the campaign, including a new message and spokespeople and the use of humor. “Insurance is an interesting category. There is no visible, tangible product, so we wanted to create a physical manifestation of the company with Doug and his emu partner, LiMu Emu,” she said.

Fink hopes the duo will become “longstanding” spokespeople for the company. “When we think about what we want our advertising to do, it is to drive unaided awareness so when people think about insurance, Liberty Mutual is top of mind,” she said.

The Win

AMERICAN FAMILY INSURANCE has unveiled the second TV spot in its integrated, multimedia marketing “This Dream” campaign that debuted earlier this year.

In its latest ad, “The Win,” American Family is sharing the message that the Madison, Wisconsin-based mutual insurer not only protects the dreams of those who achieve them but also the dreams of those whose shoulders they stand on.

The ad acknowledges the various mini-achievements consumers experience in reaching their dreams, such as purchasing a new home or car.

The first ad in the campaign, “The Sacrifice,” debuted in February. The ad shows the hard work and sacrifices people make as they strive to attain their life aspirations and dreams, including a woman changing the oil in her car and a father putting coins in a large jar as his toddler watches.

Both ads are now running interchangeably on TV, radio, online video and social media.

Lori Chordas is a senior associate editor. She can be reached at *lori.chordas@ambest.com.*

A Look at Innovation

Industry professionals discuss with AMBestTV how innovation is impacting the insurance industry.

"Innovation is about changing the process and how you do things. It's changing the product, and that's back down to the insurance product and how you're helping your customer deal with the changing risks that they have.

What are the different things and nuances? How you are continuing to evolve your product to deal with it is an important piece to it. We look at it in terms of—'It's changing the process, changing the product'—two critical aspects to innovation, and you need the culture to allow that to occur. Very often, we hear from companies about, 'We're updating all our IT systems and improving our databases.'

That to me is the foundation for innovation. You have to have that. You have to have the information to be able to innovate, to develop new products, and to be able to assess the risk of different areas, but when you come down to really innovation itself, it's, 'How are you changing your process and the product to make things easier for your customer to get to and provide a better product for them?'"

Matt Mosher

Executive Vice President, Chief Operating Officer
AM Best

"Diversity is helpful in promoting innovation, in my opinion, because when you have boards that are diverse you end up having different types of conversations that, maybe, wouldn't have happened in the past. That promotes innovation, as well as any manner of new and interesting ideas."

Andrea Keenan

Senior Managing Director-Industry Relations
AM Best

"Our core, as an insurance industry, is to serve our customers and provide that peace of mind.

How do we do that, to continually compete with the Amazons, and the Googles, and the different innovation that's happening outside the industry.

My role, I see, is becoming the innovation, the change champion for the industry and selecting the right talent, and progressing the industry to a world of being there for our future consumer."

Jyotipriya Ajay

Assistant Vice President
Amica Mutual Insurance Company

"Innovation. It's been critical in my career. It's been something that I've focused on significantly over the last several years because in the excess and surplus sector, our freedom of rate and form will allow us to create solutions, bring new products to market with the requisite speed that our clients increasingly are requiring. To me, it's not simply about looking down the road and seeing what's coming at you, it's more about what's around the corner, and understanding how the clients' needs are changing and will evolve. Creating that requisite product, again, well in advance of the need, that's what innovation is all about in this sector. It's what keeps the business fresh and relevant."

Matthew Power
Senior Managing Director
Risk Strategies

"There are a host of issues that we're going to continue to monitor and talk with companies about—innovation first and foremost. Innovation in terms of underwriting risk and claims management, claims handling. Also, innovation in data management, predictive analytics and whether this is driving some of the favorable improvement we continue to see in the combined ratio for workers' comp. I think we're also going to monitor innovation in terms of the internet of things and for workers' comp."

Jacqalene Lentz
Senior Financial Analyst
AM Best

Visit *www.ambest.tv* to watch the video interviews with these executives.

Next Wave

A Knack for Networking

Making connections with others in the industry is an important part of a successful career.

Industry professionals always say "insurance is a relationship business." When recalling favorite stories from a long career their musings often include details of the work that's been done with teammates or across departments to serve an agent or a customer. The team members who are the most valuable are often not the individuals who know the most but the ones who know the best person to contact. And the people with the most interesting career paths are often the ones who have learned about opportunities that wouldn't have been on their radar if they were simply reading job boards. Growing a career that allows you to create these kinds of stories requires networking. And, for many, networking can be off-putting, even terrifying.

Carly Burnham

For many, **networking** can be **off-putting, even terrifying.**

As I searched for the next steps in my career, I heard stories about the importance of being connected within the insurance industry. I knew I had to start somewhere, even though I found it intimidating. Networking events seemed like the last place I would want to go after a day on the phones at the call center. But I was living in a new city and working at a new company, so I figured events would be the best way to meet others in the industry.

I researched how to network as a young professional and found a number of tips. The four that have stuck with me to this day are:

• **Go to the event with a more extroverted friend.** Attending with someone who would more naturally introduce herself to others is a great way to make sure that you aren't hugging the wall to avoid making contact with new people. This tip is even more helpful if you ask your friend ahead of time if they can introduce you to people at the event.

• **Read the news.** As any of my close friends can tell you, I find small talk painful, and it was even worse when I was younger. But, when you're meeting someone new, where else can you start? I had been taught to use the FORD (Family, Occupation, Recreation, Dreams) acronym in a sales training session. But it often felt stilted or forced because back then, most of my spare time revolved around academics outside of the office, so I started reading the news and watching for local events that could spur conversation.

• **Set a goal for each event.** A goal could be either the number of people that I wanted to meet, getting an introduction to a person in a particular role or the opportunity to volunteer in some way. I often went with the latter. I found that if I could help out at the event in some way, I'd naturally meet people and be occupied enough to make the small talk easier. Any task would do—I could help keep the table stocked or make sure that everyone had signed in. But if I was setting a goal for the number of people I would meet at the event, I would keep it small. I always wanted to be certain I was making quality connections. I wanted to remember the people I met when I ran into them in the future.

• **Send thank-you notes.** At the time, I was committed to sending handwritten thank-you cards to anyone who gave me their business card at an event. I've since relaxed this practice and now I send an email. But I appreciate handwritten mail and believe others do too, so I try to send out a card now and then. The note is a great way to reinforce the connection and set up further conversation, and it ensures that the new connection remembers you.

These four tactics gave me comfort and allowed me to relax at those early events. I've moved to a number of states and changed jobs many times since developing these strategies, and they still serve me well when I'm attending a new event. Sometimes, I'll even bypass the first step and go alone! BR

Carly Burnham, CPCU, MBA, has been in the insurance industry since 2004. She blogs at *InsNerds.com* and can be reached at *bestreviewcomment@ambest.com*.

In the News

Regulatory Update

Financial adviser bill nixed in Maryland and China issues guidelines for asset-liability management for insurers.

Financial Adviser Conduct: A Maryland legislative committee has dealt a serious setback to a bill that would have raised investment advice standards on financial professionals.

The senate Finance Committee rejected the Financial Consumer Protection Act without opposition.

The bill would have imposed tough standards on fee-based financial advice, defining agents, brokers and dealers as fiduciaries required to act in their clients' best interests without regard to their own financial gain.

Asset Management: The China Banking and Insurance Regulatory Commission has issued guidelines for an asset-liability management reporting requirement for insurers.

The new rule aims to strengthen the quantitative evaluation of insurance companies' asset-liability management capability, said the CBIRC. Insurance companies have to submit quantitative evaluation reports, related supporting documents and other information for the regulator on a quarterly basis.

Last year, the CBIRC introduced new asset-management rules and tests for a trial period. The new rules aim to prevent asset-liability mismatches for stronger risk management and internal control. A quantitative test system would be introduced for the insurers to assess their asset-liability management and risk controls. Insurers have to conduct this test and submit the results to the regulator.

On the Radar Screen

AM Best's Mosher: We're looking much more closely at insurers' wildfire risk.

by Timothy Darragh

AM Best is looking carefully at insurers' exposure to wildfire risk and following the massive blazes of 2017 and 2018, companies now are too, said Matthew Mosher, AM Best executive vice president and chief operating officer. As a changing climate is creating greater potential for wildfires in fire-prone areas, insurers have to change with them, he said at the National Association of Insurance Commissioners' Spring National Meeting in Orlando, Florida.

"The companies are going to make every effort and it's a priority, after this last year, to get their arms around what their potential exposure is," Mosher said.

In the past, wildfires were considered a "second-tier" catastrophic event, not on the plane of hurricanes and earthquakes, Mosher said to the catastrophe risk subgroup of the Property and Casualty Risk-Based Capital Working Group. The wildfires of the past two years changed that, he said.

"We never saw companies have much of an impact other than an earnings hit for wildfire up until 2017," he said. "So it really just didn't hit the radar screen because it didn't have a major impact on balance sheets or income statements."

Wildfires, however, battered California the past two years, with the Camp Fire in November becoming the most-destructive wildfire in California history, with 18,804 structures in Butte County destroyed. Mosher said AM Best now is looking more deliberately at how P/C insurers plan for and consider the risk of wildfires.

> "The companies are going to make every effort and it's a priority, after this last year, to get their arms around what their potential exposure is."
>
> **Matthew Mosher**
> AM Best

"It wasn't something that we looked at very closely until the last two years, and now we're looking much more closely at what the exposure is that companies have relative to this kind of loss," he said. But companies are behind the pace of change because they haven't had much exposure to the kind of modeling for wildfires that they've had for other events, he said. Probabilistic models are relatively new and companies need to get the right data into them to determine their risk, he said.

In assessing companies' exposure to wildfire risk, Mosher said, AM Best first looks at the insurer's balance sheet and its ability to get support from affiliates or the capital markets after an event. But AM Best also will consider other elements, such as how often companies test their risk, he said.

Another issue is how frequently a company reviews its exposure data. "Is it once a year ... or is it something that you're looking at on a quarterly, monthly or even daily basis as you're working through your business?" he said. "This was a big issue for some of the companies that we saw that had issues with the 2018 wildfires." The new reality should be driving companies to have a deep conversation on governance questions, he said. "The most important thing we're trying to get is really to make management think about it and come back with a well-thought-out view of, this is the risk we have, this is what we find acceptable, and have that discussion with them," Mosher said. BR

Timothy Darragh is associate editor, *BestWeek*. He can be reached at *Timothy.Darragh@ambest.com*.

Dedication to Data

Insurers must use data more efficiently or be left behind.

It is frequently said that the property/casualty insurance industry has a "data problem." I don't think that's necessarily true.

The way I see it, the industry has access to an immense amount of data: risk-specific information from policyholders, historic data and generic data found in the public domain. The amount of information we can capture is ever-growing. Importantly, we as an industry are finally capturing significant amounts of data electronically at source, so that we don't have to keep inputting the same information over and over again. Multiple data entry is cumbersome, expensive and results in errors. Much more work needs to be done to ensure single-entry data is the norm, but we're starting to get there.

Therefore, the so-called data problem we as insurers face today does not have as much to do with the information itself, but instead with what I call "process." It's no use having the best information possible if a company doesn't have the tools to analyze and use it in an efficient manner. In other words, I believe what we really have is a process problem.

Some insurers have invested significant amounts of money on processing data over the past decade—albeit with varying degrees of accomplishment. A lot of this money has been spent fixing problems with historic data or addressing issues that do not provide actual business benefits. Those companies that have achieved success most likely adopted a well-developed, forward-looking data strategy. Those that have come up short most likely adopted a piecemeal plan and ended up spending considerable amounts of money to produce disappointing results that have failed to provide insights to underwriters.

By
Stephen Catlin

The one thing I learned as the CEO of an insurer is that getting the most out of the data available to a company is very expensive, time-consuming and requires top-notch expertise.

The one thing I learned as the CEO of an insurer is that getting the most out of the data available to a company is very expensive, time-consuming and requires top-notch expertise. I also found that this investment is essential. If an insurer is not willing to make the appropriate investment—in terms of data systems and the best people to manage them—it probably will be disappointed with the end result and wind up being left behind.

Advances in the use of underwriting algorithms have led to more robust pricing for both personal lines and commercial risks. It is clear that algorithms can significantly reduce the time and the cost to underwrite smaller risks while improving the quality of underwriting decisions.

For the large risks for which pricing cannot be completely trusted to a model, access to the best information possible is still one of the keys to successful underwriting. While human judgment is essential when pricing a truly complex account, well-designed algorithms can provide the underwriter with superior analysis, which leads to a speedier process as well as a fairer price. Calculating a fair price is one thing that benefits the client, the intermediary and the insurer.

Human talent always will be a key differentiator in the insurance industry. Employing high-quality people who embrace new ways of doing business and providing them with the appropriate analytical tools to get the most out of a company's data will result in a winning combination, particularly for complex business. BR

Best's Review contributor Stephen Catlin is the founder of Catlin Group and former executive deputy chairman of XL Catlin. He is a member of the International Insurance Society's Insurance Hall of Fame. He can be reached at *bestreviewcomment@ambest.com.*

Break New Ground

Life insurers are using digital health data to streamline the underwriting process.

By
Sue Wehrman

Electronic health records are currently undergoing widespread adoption in the United States. The use of EHRs by health care providers more than doubled in the United States, from 42% to 87%, from 2008 to 2015, and currently at least 84% of U.S. hospitals now use them, according to the Office of the National Coordinator for Health Information Technology's Health IT Dashboard.

As physicians and consumers grow increasingly comfortable with the technology, EHRs are creating a new reality for life insurers. Still, the question remains, how will life insurers use EHRs?

The life insurance industry is breaking new ground in its efforts to correlate clinical data, health claims data, and patient-generated data in order to derive the complete story of an insured's health or risk status. However, challenges remain in a number of areas, including how best to develop a system that allows all essential data to be delivered to the right places and provides information that is easy to access and use.

Why is understanding and interpreting digital health data such a challenge?

First, the sheer amount of data included in EHRs is overwhelming. Digital health data (DHD), a reference to both clinical data and medical claims data, is complex and has many layers. Because of this, understanding DHD is like learning a new language, with all the nuance of communication—context, conjugation, dialect, etc.

Structured EHR data is represented by several medical coding vocabularies, each of which consists of thousands of codes, including diagnoses codes, procedure codes, drug codes and lab codes. For example, there are nearly 95,000 ICD-10-CM codes alone, and ICD-10 is just one of many standardized code systems used in health care. In addition, these codes can vary based on whether they are being used in a clinical or claims/reimbursement setting.

> In much the same way that the industry went through a transformation with prescription history data, a new landscape around the use and application of EHRs in insurance is taking shape.

The result: Carriers trying to use DHD can be overwhelmed, and too much data makes the process slow and ineffective.

New ways of aggregating and distributing EHR data are emerging. In much the same way that the industry went through a transformation with prescription history data, a new landscape around the use and application of EHRs in insurance is taking shape. By transforming raw data, we can make sense of the various data sources and efficiently digest health data for use in underwriting.

Each interaction with a physician, medical system or pharmacy is a piece of an individual's health care story. From conditions and tests to therapies, prescriptions, and use of medical equipment—all of this is important information for insureds, and companies can benefit from expert interpretation of this data.

By interpreting, analyzing, cross-referencing and organizing data, it is possible to score data from all of these sources, transforming the raw data into an assessment, or score, which is provided to the insurer. In much the same way insurers can receive a prescription score, the DHD score can streamline the underwriting process.

The industry has been working for some time to bring EHRs to life insurance, and that work is paying off. We are breaking new ground in efforts to correlate clinical data, health claims data, and patient-generated data in order to derive the complete story of an insured's health or risk status.

EHRs are already transforming underwriting. How will you make them work for you? BR

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Data Everywhere

The internet of things, along with an AI assist, is revolutionizing insurance.

By
Mike de Waal

AI and analytics can find the needles of insight in the haystack of data and learn from them to identify patterns and trends that might otherwise be undetectable.

Data is the foundation of insurance, and two emerging technologies—the internet of things and artificial intelligence—are making that foundation more useful than ever.

IoT allows internet-connected devices to send and receive real-time data. Insurers are increasingly using IoT data to streamline operations, improve customer engagement and offer discounts and incentives for healthy behavior such as safe driving and regular exercise. The data is also being used to calculate risks more accurately, boost competitive advantage and streamline compliance.

That's just the beginning. Connected devices will be increasingly valuable for other activities, including loss control, pricing, underwriting and marketing.

IoT produces a flood of big data that would be unmanageable without AI to organize it and extract what's valuable. Using IoT and AI together can benefit not only insurers but also brokers, employers, employees and consumers.

Some IoT software vendors now offer built-in AI capabilities, such as machine learning-based analytics. AI and analytics can find the needles of insight in the haystack of data and learn from them to identify patterns and trends that might otherwise be undetectable.

Technologies that monitor vehicle speed, brake function and driving habits are starting to transform auto insurance. Several insurers are offering savings to drivers whose data show that they're safe drivers.

About one in six Americans own a wearable fitness device, according to the Pew Research Center. Wearables can provide extensive data, including an individual's daily exercise level, heartbeat rate and even length and quality of sleep.

Life/health insurers selling both individual and group policies would love to get their hands on this data and use it to motivate insureds to adopt healthy lifestyles, offer appropriate discounts and assist in underwriting. John Hancock already plans to require new insureds to use activity trackers and share their fitness data in exchange for discounted premiums and other benefits.

In underwriting, wearables provide data that can either lessen or eliminate the need for medical tests. Some insurance software vendors have integrated wearable data analytics with cardio fitness scores for simplified underwriting and jet issue of voluntary and group products. The data also can help guide new product development.

Wearable devices that can detect heartbeat irregularities and high blood pressure can also alert insureds to the need for early treatment, potentially reducing costs for insurers. But there are downsides. The insurer has access to the most private type of information whenever it is connected to a customer wearing a device. What could be more personal than one's heart rate?

So it must take pains to ensure security and to credibly assure customers and employers that personal health information will be guarded like Fort Knox.

Insurers, of course, have always dealt with sensitive information. But the sheer volume of IoT data presents more opportunities for hackers and other criminals. AI also may have a role here in providing early warning detection of possible hacking or fraud.

IoT, combined with AI, is already beginning to transform the industry. Insurers looking to get the best return on investment for their data dollars would be wise to investigate making it a part of their technology strategy. BR

Best's Review contributor **Mike de Waal** is president and founder of Global IQX, a software company serving employee benefits insurers. He can be reached at *mike@globaliqx.com*.

Don't Stifle It

Rules need to manage privacy and cybersecurity developments without suppressing insurers' uses of data.

By
Theodore P. Augustinos

There's no shortage of imagination for collecting and using data.

Insurers collect and use data in increasingly interesting and productive ways. Insurtech investments skyrocket as insurers seek innovative, data-driven solutions to design products, mitigate risk and handle claims. Simultaneously, the legal and regulatory environment related to data protection becomes increasingly complicated. How can insurers pursue innovation in this changing and challenging environment?

Insurers' obligations to safeguard certain information originated with the Gramm-Leach-Bliley Act of 1999, but they're rapidly evolving to include expanding types of data, more specific security requirements, and new disclosures and notifications.

For International Insurers, the GDPR: The EU General Data Protection Regulation (GDPR) required international insurers to develop processes to map identifiable data collected about individuals, including innocuous information companies didn't think about before, and granted individuals new rights concerning their data. Many struggle with the GDPR's nuances, given the potential for expansive interpretations. Other countries' laws and regulations may also apply to international insurers, including the Canadian PIPEDA and provincial laws, but the GDPR drives the discussion internationally.

U.S. State Privacy and Cybersecurity Developments: States legislatures also innovate. The California Consumer Privacy Act of 2018 (CCPA) represents a new approach for the insurance industry and beyond. Like the GDPR, the CCPA expands the types of data to map and protect, and grants individuals new rights. Copycat legislation already appears in several other states. Although the CCPA echoes key concepts of the GDPR, GDPR compliance doesn't satisfy the CCPA. Companies must address the CCPA's particular requirements, regardless of the sophistication of their existing compliance program.

The New York Department of Financial Services (DFS) Cybersecurity Regulation established onerous new cybersecurity requirements for financial services, including insurance. The DFS definition of nonpublic information includes information that had not been previously addressed by U.S. requirements of insurance companies, including critical business information in addition to personal information. Inspired by the DFS, the NAIC issued its Insurance Data Protection Model Law last year. With variations, it has been adopted in several states, and proposed in others.

Breach notification laws also continue to be amended to include new data, including health and medical, and biometric data.

How to Address Privacy and Cybersecurity Requirements Without Stifling Innovation: There's no shortage of imagination for collecting and using data, but the legal and regulatory environment is increasingly challenging. Here are three steps to managing privacy and cybersecurity risks without stifling innovation.

- **Build a Culture.** From top down, a company must embrace privacy and cybersecurity. Build a culture that sees privacy and cybersecurity as important features, not barriers.
- **Map Data and Systems.** Types of data covered by the developing privacy and cybersecurity obligations continues to diversify. Understand what data your company collects and how it's processed.
- **Include Privacy and Cybersecurity in Development and Onboarding.** Reverse engineering a system or function is difficult, expensive and risky. Address privacy and cybersecurity up front. An old concept, "privacy by design," is more relevant than ever. Product design, technology development and onboarding third-party solutions must address potential privacy and cybersecurity issues from conception for quicker, more efficient and effective development. BR

Best's Review contributor **Theodore P. Augustinos** is a partner of Locke Lord LLP, where he serves on the steering committee of the firm's Privacy & Cybersecurity Practice Group and leads its NY DFS Cybersecurity and CCPA Initiatives. He can be reached at *ted.augustinos@lockelord.com*.

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Accidents Will Happen

Michael Flood, vice president for the accident and health division at Philadelphia Insurance Companies said agents should consider PHLY for an accident quote because of how quickly their underwriters are able to turn things around. "We have a unique expertise in this business, and our underwriters work directly with the agents on the quote requests," said Flood. The following are excerpts from an interview.

PHILADELPHIA INSURANCE COMPANIES

A Member of the Tokio Marine Group

Michael Flood

Vice President for the Accident and Health Division
Philadelphia Insurance Companies

"PHLY has an incredible marketing backbone and our marketing operation is always there to help the agent community."

Go to the Issues & Answers section at *bestreview.com* to watch an interview with Michael Flood.

What risks does PHLY cover under its accident plan?

There are a wide range of risks. They include amateur sports, camps and clinics, childcare centers, K-12, college and university exposures, special events and volunteer groups. The volunteer groups and the special events, in particular, are two risks that we write a lot of on a daily basis.

Can you explain excess coverage?

Excess is a commonly used provision in accident policies. If a claimant files a claim, they have to do so first through their own health care plan. That raises two scenarios. Scenario No. 1 is the claimant does not have any health insurance or they're covered under Medicaid. In that situation, the accident policy becomes the primary health care coverage for the participant. The second scenario is the claimant does have a private health care plan. They file that claim through their own health care plan. Then they get a benefit statement, commonly referred to as an Explanation of Benefits that they get back from their insurance company, showing what their patient responsibility is. Our accident plans can help pay for that patient responsibility. Good examples are deductibles, coinsurance, and copays.

Are there special licensing requirements for the agent or the broker?

In most states, the agent or the broker has to have an Accident and Health License. It varies by state how that license is referred to. Sometimes it's just referred to as a Life License or a Life, Accident, and Health. There are a few states, such as New York and Florida, where if you have your property and casualty license, you can also sell this accident insurance product. More states are starting to realize the relationship between the liability and the accident insurance, and allowing agents to sell it accordingly.

Why should an agent discuss accident insurance plans with their customers?

One reason is if they don't talk about it with their customers, then another agent will talk about it and get through the door, and gain a competitive advantage. It should be discussed for that reason alone. No. 2, it does help to protect the general liability policy for that customer. If the organization is in the position to help pay the medical bills for the injured participant, then it lessens the chance that the participant and their family will sue the organization. Lastly, organizations are starting to recognize that there's a positive public relations message. They're able to help pay the medical bills, and it maintains that relationship between the organization and the participant on a very even keel or in a friendly way.

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Igniting Innovation

Known for saying to associates and distribution partners, "What got us where we are today, won't get us where we need to go," Nationwide E&S/Specialty President Tom Clark is passionate about fostering innovation. "History shows that as companies reach the 40-year mark, they need to innovate to remain relevant and thriving," said Clark. "Nationwide's E&S organization was founded in 1982, so we see this work as critical to our evolution." The following are excerpts from a recent interview.

Nationwide®

- Fortune 100 company.
- AM Best rated A+ (Superior) FSC XV.
- 3rd largest domestic specialty (Excess and Surplus) commercial lines insurer.

Tom Clark
President, E&S/Specialty
Nationwide

"We've implemented innovation goals for every associate, as well as a system of rewards for both failure and success."

Why is innovation important in today's market?

The hyper-changing and dynamic E&S and specialty lines industries require that we innovate to succeed. Mergers and acquisitions, along with new entrants, are changing the distribution landscape. Naïve capital is prolonging competitive pricing. Changes in weather are resulting in more frequent and severe catastrophes. Social inflation is creating an escalating litigious environment. Advances in technology are leading to the commoditization of what were once traditional E&S risks, while also helping us meet the increased demand for speed and ease in a digital world.

These factors are driving the need to leverage data and analytics to better manage the pricing, products and services we provide our distribution partners. As we lend a data scientist mindset to commoditized business, we will create capacity for our underwriters to harness their industry-leading expertise more effectively on the true E&S risks. I am convinced the only way forward is to disrupt ourselves to find new and better ways of differentiation, and to maintain a leadership position in the industry.

How is Nationwide fostering a culture of innovation?

We are enhancing the operational models across every area of our business to create opportunity for associates, while profitably growing our business. Our senior vice president of product/program expansion is cultivating innovative go-to-market strategies in support of our P&C brokerage, binding authority, specialty brokerage, surety, professional lines, and program books. This includes supporting acquisitions, identifying emerging markets and talent lifts, and developing unique opportunities with our distribution partners. We enlisted our actuarial vice president to build a specialized analytics team to draw from decades of data to develop predictive models for best-in-class pricing and risk selection. Our vice president of cyber products is focused on managing the growth of Nationwide's entire cyber portfolio. We recently acquired program manager E-Risk to leverage their platform to enable cross-sell opportunities for our distribution partners.

How are you bringing your distribution partners along?

The voice of the customer is always at the forefront of everything we do. I have been sharing this message with our partners for several years now. As we develop new strategies and processes, input from our partners is a key component. Getting their feedback from the start has been a game-changer for us. We are putting people, products and technology in place for our mutual success. True partnership, in which each party gives and gets, is the foundation of this organization. Despite the great deal of change I reference, it is one constant we will continue to build on to be successful.

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Photo Illustration: Andrew Crespo

The Wild West of Data

Insurers are moving from static data sources to real-time, dynamic information, but privacy concerns have emerged as an imposing obstacle.

by Jeff Roberts

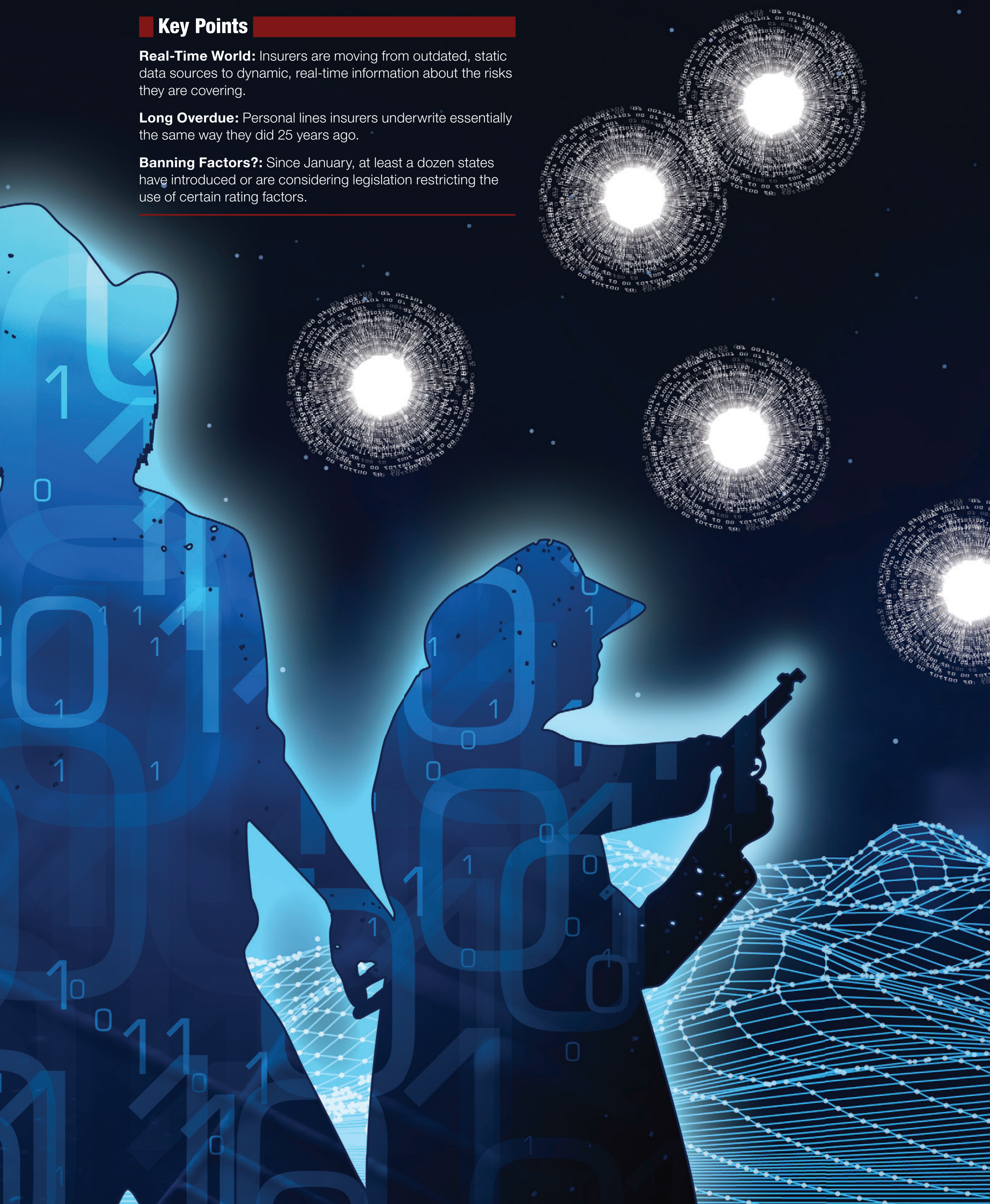
Jeff Roberts is a senior associate editor. He can be reached at *jeff.roberts@ambest.com*.

Key Points

Real-Time World: Insurers are moving from outdated, static data sources to dynamic, real-time information about the risks they are covering.

Long Overdue: Personal lines insurers underwrite essentially the same way they did 25 years ago.

Banning Factors?: Since January, at least a dozen states have introduced or are considering legislation restricting the use of certain rating factors.



A black box lies hidden from view in nearly every car on the road, and most Americans are unaware of it.

The smartphone in their pocket holds the necessary components to track their location and movements, spending habits and driving behavior—and often does.

Meanwhile, scores of data brokers already glean and analyze reams of their personal information from social media, retailers, search engine providers and even automakers that collect it from a variety of vehicle devices.

And the insurance industry is increasingly interested in using those data streams and similar information in its underwriting.

Insurers are searching for new and unconventional forms of data, specifically dynamic, real-time information to replace outdated, static sources. Carriers are shifting to those next-generation data sets to assess and price risk in auto, homeowners, health, life and small commercial.

Most of that information is readily available to insurers, whether consumers know it or not. But sensitive privacy and regulatory concerns accompany much of it—especially the use of consumers' digital footprints.

"Think of it as kind of a Wild West of data generation," said Greg Donaldson, Aite Group senior P/C insurance analyst. "Nothing is completely locked down right now.

"Many of the new cars already have these data-generation devices built in. [Insurers] just need to move quickly to figure out how to get that and how to turn it into an actionable rate. They're scrambling with new forms of data to keep up with each other."

They are exploring it as regulators continue to push the industry to evaluate risk based on behavior and conditions—especially in auto—rather than by who the applicant is. Evolving oversight and societal views on the use of gender, education level and even credit scores as rating factors are pressuring carriers to find additional insight into risk.

No matter the space, insurers are experimenting with emerging streams of big data to improve underwriting accuracy, reduce fraud, gain a competitive advantage in crowded markets and replace that growing list of lost rating factors.

The sources of new data include third-party brokers, public filings, social media and internet of things devices. And a host of insurtechs are using algorithms and analytic tools to translate information into scores, metrics and predictive models.

"You're moving from demographic-based data to actual-use data," Donaldson said. "You're switching from static data points collected at the time of the application to dynamic data that changes all the time.

"That opens the door to much more accurate rating. It also provides an opportunity for insurance companies to move away from some of the more controversial data sources that they've used in the past."

Many in the industry think the use of dynamic big data in underwriting is long overdue, even if it is heightening concerns among privacy advocates.

Technological innovation has reshaped society over the past two decades, but it hasn't been integrated into insurance models at nearly the same speed. Personal lines insurers underwrite essentially the same way they did 25 years ago, with the notable exception of credit scores.

"Assessing risk at a single point in time is an antiquated concept. But today that's how the entire insurance world works," said Max Drucker, CEO of insurtech Carpe Data, which provides data and predictive scoring products for insurers. "They'll pull credit. They'll pull [motor vehicle records]. Then they'll issue the policy. And maybe—maybe—they'll do it again at renewal.

"Being able to continuously evaluate and monitor risk is the future of the industry."

Real-time data offers the opportunity to precisely assess risk and even reduce it—think offering tips and rewards for safer driving. It also presents the chance to engage with consumers in a way that carriers have traditionally failed to do.

The practice is finally taking hold with usage-based insurance in auto, smart devices in homeowners, wearables in health and life and insurtechs offering "living" streams of data across the industry.

In fact, some analysts say the tipping point is fast approaching when active, real-time data will fully replace conventional information to inform underwriting and pricing.

"It would not surprise me at all if over the next five years they start moving from some of these older, static, data points and shift to a dynamic model," Donaldson said. "It's always better to rate someone based on what's actually going on versus who they were at the time of the application.

"Some companies might do it even faster. There's enough playing with it now that all it's going to take is one successful run."

But few use it now in their underwriting, possibly because insurers have to delicately navigate an evolving patchwork of regulatory oversight and shifting public opinion.

"In the U.S., it is sort of the Wild West right now," said Mike Vogt, executive director of data, analytics and machine learning for technology consulting firm SPR. "It will be up to voters and legislators to determine what level of privacy they're willing to trade for convenience and efficiency."

Changing Times, Rating Factors

But the drivers behind the rise of unconventional data are clear.

Regulation and competition.

In some cases, emerging data points are supplementing traditional information that offers limited insight.

The commoditization of auto insurance, for instance, has forced companies "to figure out how to keep costs under control and charge a better rate," Donaldson said. "Therefore credit modeling comes up, and now you're starting to see all this new data."

In other cases, emerging data is a substitute for factors such as gender or education level that some regulators have banned.

"With unconventional data sources, you're just using different methods to suss out more clearly the profile of that risk that traditional applications might not be able to determine or they can't use," said Lucian McMahon, a senior research specialist with the Insurance Information Institute. "There's always other ways to price risk when if you can't use a certain factor."

But the list of banned factors is growing rapidly.

This year, California became the latest state to ban the use of gender as an auto rating factor, joining Hawaii, Massachusetts, Montana, Pennsylvania, North Carolina and parts of Michigan.

Other states have outlawed marital status and level of education.

The industry has warned that losing many of the tools it uses to assess and price risk will lead to reduced accuracy in underwriting and higher premiums.

But since January, at least a dozen states have introduced or are considering further legislation restricting the use of rating factors, the American Property Casualty Insurance Association said.

Connecticut, New Mexico, Texas and Virginia have considered banning gender in auto. Maryland and New Jersey are considering eliminating education and occupation as factors. Maryland is also considering banning marital status. And California announced plans to host a public meeting to consider the use of occupation and education in setting auto rates.

"Think of it as kind of a Wild West of data generation. Nothing is completely locked down right now."

Greg Donaldson
Aite Group

Meanwhile, the use of consumer credit information has moved to the front lines in the battle between insurers and consumer advocates.

The industry has found credit information—an insurance score that includes credit elements—to be a reliable predictor of personal responsibility and the likelihood a claim will be filed, analysts said. Now ubiquitous, it became a prevalent factor in auto about 20 years ago and remains a trusted consideration in homeowners, life and other segments.

However, California, Massachusetts and Hawaii prohibit the use of credit in auto insurance. And Connecticut, Indiana, Maryland, New Jersey, Oregon, Rhode Island and West Virginia have introduced bills that would ban it.

Maryland and Hawaii do not allow it as a consideration in homeowners.

In a strongly-worded statement in March, NAMIC defended the use of credit information, saying eliminating it would make "underwriting less accurate and could lead to an increase in premiums," said Jimi Grande, senior vice president of government affairs.

"Credit is something that is being wrestled with a lot in the regulatory and political arena," said John Lucker, a principal with Deloitte Risk & Financial Advisory and global advanced analytics market leader. "Credit is widely used. It's been proven in numerous studies, including studies that have been done by regulatory bodies and independent researchers, that it's an excellent predictor of many things from an insurance perspective."

'Reasonable Concern'

However, the potential replacements pose their own concerns.

Studies have found third-party data can be inaccurate, outdated and difficult to correct, Lucker said. Sometimes it can even be misleading.

And that is a significant issue when culling data from consumers' digital footprints.

The trail of information people leave after surfing

"Credit is something that is being wrestled with a lot in the regulatory and political arena. Credit is widely used ... it's an excellent predictor of many things from an insurance perspective."

John Lucker
Deloitte

the internet includes the websites they view, the emails they send, their social media posts and any information they submit online for services.

"There's reasonable concern from the insureds' perspective around privacy with these alternative data streams and social media," McMahon said. "I would be shocked if [internet history] data would be permissible to use just given the privacy angle."

However, consumers' digital footprints, lifestyle choices and even the magazines they read provide insight into risk.

Many carriers already use social media in their claims operations to combat fraud. They monitor the accounts of drivers after auto accidents or those filing disability or workers' compensation claims.

Some have even experimented with social media as a supplement to rating factors. But just the mere mention of it creates a storm of media headlines.

Given those concerns, insurers continue pursuing more customer-friendly techniques to obtain data—often dangling rewards and discounts in exchange.

In health, wearables such as Apple Watches and Fitbits monitor everything from activity and diet to sleep patterns, data that can help augment underwriting and encourage healthy lifestyles. Life insurers such as John Hancock are collecting that data and rewarding healthy living with retail gift cards and premium discounts.

Telematics support usage-based insurance in auto. The devices, plugged into cars or downloaded as mobile apps, track location, speed, driving conditions, miles driven and braking and accelerating habits.

UBI is an upgrade over traditional factors, which include age, gender, ZIP code, credit information, daily commuting distance and car make and model.

"It's a static set of data. So insurance companies would love to figure out a better predictor of how this person is going to perform over time," Aite's Donaldson said. "Your history may not be a good indicator of your future risk. That scares insurance companies." Carriers such as Progressive and Nationwide and insurtechs like Metromile and Root capture the behavior of the driver and price accordingly.

But some consumers have expressed concern that UBI allows carriers to track their movements. Some companies monitor location and stops through an app during the trial period to determine premiums, even when drivers are not operating a car. A few even continue to record data after the rating period.

Forty-five percent of Americans view trading their driving and location information to an auto insurer for a discount as unacceptable, according to a 2016 Pew Research Center study. Thirty-seven percent found it acceptable, while 16% said it would depend on the circumstances.

Meanwhile, discounts for using UBI amount to only 3% on average.

That combination could explain why only "5% or 7%" of noncommercial U.S. drivers have adopted usage-based insurance, said Tom Scales, head of life and health insurance at Celent.

But it still may become the standard model for auto insurance, with some carriers raising conventional policy premiums to offset UBI rewards and discounts.

The information to do it largely exists even without telematics devices. Nearly every car contains a black box—more formally known as an event data recorder—installed by the auto manufacturer that captures speed, braking and steering angles among other information.

They became commonly included more than a decade ago and record data for small snippets of time in the event of an accident. Seventeen states have passed laws limiting the use of information EDRs capture.

But other vehicle devices such as built-in navigation systems, diagnostic platforms and radar sensors can record data. Some newer cars can even capture a driver's eye movements, the weight of

the front seat passengers and whether the driver's hands are on the wheel.

Smartphones, both those connected and not connected to the car, can track other information.

"The industry has the ability now to monitor your driving in real time. And they can give you feedback in real time to improve your driving profile," Donaldson said. "That kind of data would be invaluable in the rating process."

In homeowners, internet of things devices such as smart detectors monitoring smoke and carbon monoxide levels, smart sensors detecting plumbing leaks, smart appliances, thermostat detectors and smart home security sensors provide emerging data.

"IoT is going to play a big role," Donaldson said. "All of those things make the home a little bit safer from risk."

Caution Ahead

But insurers have good reason to be cautious.

They have to maneuver through a web of oversight, including the federal Fair Credit Reporting Act, the EU General Data Protection Regulation (GDPR) and the network of state regulators.

The GDPR requires companies to develop processes to catalog any identifiable data collected about individuals. And California recently passed the Consumer Privacy Act, which will require businesses to disclose the personal information collected, its sources and who it has shared it with, upon request, starting in 2020. Consumers can also request that data be deleted or not shared.

Then there is the shadowy world of data brokers to consider.

Much of the emerging data they supply is not compliant with the FCRA, according to Deloitte's Lucker. That could expose insurers to the discrimination and regulatory issues.

"Who knows how accurate or inaccurate this data is," Lucker said. "The data ecosystem is not necessarily sourced by the company they talk to. Data Broker X might specialize in generating some segment of data, and the other data they present to the marketplace comes from licenses they have with other brokers.

"Sometimes even the data broker can't control the origin of the data they sell. So if there's an error in it, it's very difficult to fix, if not impossible."

The sources of that information might surprise many consumers.

Nearly every company that asks customers to sign up for services and prompts them to accept its terms and conditions is sharing their data.

Internet search engines. Social media networks. Even your local grocery store through its rewards program.

"Your cell phone company. Your credit card,"

New Data Delivers Commercial Solutions

The clues might seem small and rather unrelated. Yelp customer reviews. Online employee satisfaction ratings. Risk characteristics such as deep fryers or tanning booths.

But to Max Drucker, CEO of insurtech data broker Carpe Data, they are insightful—and publicly available—indicators of the risk small businesses present that an insurer might not see at first glance.

"We're using new ways to solve existing problems and questions," he said.

The industry is hunting for new and nontraditional forms of data to inform its underwriting and pricing. And insurtechs are finding it in traditional places such as public filings, from data brokers and from alternative sources such as Yelp and the businesses' own websites.

Carpe Data, based in Santa Barbara, California, is just one insurtech vendor leveraging emerging data and analytics in the small commercial and claims spaces.

Other vendors are applying aerial photography and mapping analysis—via drones or low flying aircraft and artificial intelligence—to help insurers price the risk of homeowners cover.

They are determining the proximity of houses to water sources, overhanging trees and historic wildfire paths. They also are studying elevations and property and neighborhood drainage under various conditions.

That information can augment traditional rating factors such as the age of the home, the age of its roof, its location and the neighborhood.

Only "a very small percentage" of insurers are using such technology and data, said Greg Donaldson, Aite Group senior P/C insurance analyst. But that will soon change. He's aware of two image analysis vendors who have large insurers as clients.

"It's technology that really just started to come into its own in the last 12 to 18 months," Donaldson said. "With the data they're generating, it's going to create the opportunity for more accurate ratings, and it will be easy to get regulators on board with it."

With businesses constantly evolving, carriers need new data streams to accurately assess and rate their risk, Drucker contends.

Lucker said. "Every single website you go to has some type of terms of service. And no one ever reads it and decides they're not going to shop there or use that search engine."

But the accuracy and reliability of external data can vary widely.

Social media data is "often unstructured and full of gaps, false statements and hyperbole," according to a 2015 Verisk report.

The 2018 *Experian Global Data Management Benchmark Report* found that 33% of U.S. organizations believe their customer and prospect data is inaccurate.

Deloitte conducted its own limited sample survey in 2017 to test the accuracy of commercial data-broker data among 107 of its own employees. Two-thirds of respondents said their information was only zero to 50% accurate as a whole. One-third said it was zero to 25% accurate.

And the context of that data—why a consumer bought something or how they use it—is removed, potentially eliminating the applicability of the information.

Can an algorithm determine that an Apple Watch was purchased as a gift and not a commitment to fitness? Can it decipher that a social media photo of someone smoking was taken eight years ago?

Lucker shared a personal example. He ran an old-style baseball league and maintained its playing field. When it rained, he bought dozens of bags of cat litter to absorb the standing water.

"So I started getting coupons at the grocery store for cat supplies," he said. "They must have thought I had 100 cats in the house."

The store incorrectly concluded he was a cat owner and marketed products to him based on that assumption. Innocent as the mistake may be, consider that everything consumers buy and every service they use can be shared with data brokers and analyzed. How many conclusions and predictions from that data would be just as misleading or flatly inaccurate?

But then again everything—even sensitive personal information—has its price.

Insurers continue to devise value propositions to encourage consumers to share their valuable data for discounts or convenience, analysts say.

After all, Americans willingly share their location, movement and routines every day in exchange for free mapping technology.

"We call it Google Maps," McMahon said. "We give Google and other mapping apps extremely sensitive information because we love the convenience of avoiding traffic.

"That sell needs to be made. But insurance is probably one of those areas where it's a hard sell, because there tends to be more of a skeptical attitude toward it." BR

"The biggest challenge is changing the mindset and processes and helping insurers understand how they can use this new information today and outside just the policy renewal cycle," he said.

"The objective is to use new ways like AI, computer vision and alternative data sets to solve problems and also identify the rating factors of the future. What are the things that they are not looking at today that have predictive value?"

Carpe Data collects data on its own from publicly available sources and from direct data providers.

The publicly available streams include Yelp customer reviews and company profiles; businesses' websites, Twitter accounts and Facebook pages; and online employee satisfaction ratings.

Carpe Data then uses data analytics tools to assist carriers in making eligibility decisions, ratings and eliminating manual underwriting to facilitate automation, Drucker said.

It also teamed with Allstate in 2017 to apply predictive online data to reduce fraud in the insurer's claims processing.

And the firm works with disability and workers' compensation carriers to identify claimants who may not be as disabled or injured as they say. Sometimes it's a workers' comp case where the employee's 5K race time was published or his batting average from his recreation softball league was posted.

"A carrier can't be sitting there Googling people, looking stuff up," Drucker said. "It doesn't make sense at that scale. But we're able to monitor that claimant activity over the life of that claim."

Carpe Data also offers products that compile hundreds of small-business risk characteristics across a spectrum of industries to supplement current underwriting factors.

Does the restaurant have a deep fryer? Does the nail salon offer waxing? Tanning? Does the landscaper trim trees?

"Places that are well-run are more likely to have high visibility, to have a good reputation, to have good customer reviews," Drucker said. "It can be a good indicator to how well that business is run, and in turn, how likely they are to have a loss."

Data

Key Points

Clear Picture:
Underwriters are gaining more dynamic views of risk through new sources of data and advanced analytics.

Model Client:
By showing underwriters which policies will be more profitable, predictive models allow for more risk-based pricing.

Reality Check:
Overreliance on new tools is dangerous because results are only as good as the data being used, and experts say data is still poor.

Driven

An explosion of data and advancements in analytics is shifting underwriting from an art to a science.

by Kate Smith

Having grown up in Pennsylvania, Kassie Bryan knows well that one of the biggest road hazards in the state has four legs.

"I saw so many deer accidents growing up there," Bryan, head of P&C Solutions for Swiss Re, said.

So it made perfect sense to Bryan when Swiss Re incorporated deer population density data into its Motor Market Analyzer, a predictive model that uses granular data sets representing accident risk factors to determine accident frequency and severity by geographic area.

Kate Smith is a senior associate editor. She can be reached at *kate.smith@ambest.com.*

"We did a project for a client who was looking to grow into the state of Pennsylvania," Bryan said. "They had no historical loss data on auto in Pennsylvania, and they wanted to understand what the drivers of loss are and what they should be thinking about when they enter the state. One of the external data sets we used was deer population density.

"When I heard we were using deer population density, I thought, 'That makes so much sense. That's absolutely a driver of the risk.'"

Advanced analytics enable insurers to paint a dynamic, and real-time, view of risk. And at the heart of analytics lies data.

Insurers are accessing a wealth of traditional and nontraditional data sources—from credit ratings and motor vehicle records to Yelp reviews and, in Swiss Re's case, deer population density—to inform decisions, improve pricing and increase efficiency.

When combined with advanced technologies and new modeling capabilities, data becomes an exponentially powerful tool that enhances an insurer's understanding of risks.

"You're seeing a move from static information that gets updated once a year or less, to a dynamic view of businesses or consumers."

Kirstin Marr
Valen Analytics

"You're seeing a move from static information that gets updated once a year or less, to a dynamic view of businesses or consumers," Kirstin Marr, president of Valen Analytics, said.

The implications for underwriting are significant. Not only are data and analytics enabling the automation of certain parts of the underwriting process, but as data becomes increasingly reliable experts say underwriting will become more of a science than an art.

"Today, underwriting is manual and highly experiential," Ari Chester, a partner at McKinsey, said. "It's based on experience and hard-learned lessons from individual underwriters, who learn from apprenticeship. There are analytics and tools that are used, but they're often homemade, homegrown and inconsistent. And the data that is used is very often what is supplied in the submission, which is collected through a broker or agent from a client.

"In the future, when it's more science-based, the quality and collection of data will be more advanced. There will be more tools. There will be more rigor, more use of models and certainly less manual processing."

While the use of advanced data analytics is in the nascent stage, experts say it's already having an impact on efficiency, as evidenced by the rise of digitally augmented underwriting.

"Parts of the underwriting process that can be automated are being automated," Risa Ryan, head of strategy and analysis for Munich Reinsurance America, said. "And the data is being enhanced with data sources that go far beyond what we typically have used in the underwriting process."

Predicting Profitability

Data and analytics are not new for underwriters. Actuarial analysis is grounded in those things.

"When you think about how data has informed underwriting, which is risk selection and pricing, it's largely been leveraged at the large scale by actuaries setting rates and selecting company tiers," Marr said. "Those are things that are done once for the year and set.

"The other way underwriters have used data is by getting it from the application or by using manual reports. If it's commercial auto, they're pulling a motor vehicle report. They've done inspections. They've relied on agents to validate the business. Those are very expensive, very manual ways of acquiring and reviewing data."

Ryan described that process as "inefficient."

"Now information is being stored in a manner that is easily accessed and cheap," Ryan said. "It's less expensive to access data than it used to be. And we also have the tools to access data; computers are so fast now. And we've got open-source tools that have democratized the accessibility and usability of data."

The end result is an automated, real-time use of advanced data and analytics in the underwriting workflow.

"We have the ability to intake data in real time—

transactional, primary sources of data," Marr said.

Rather than relying on data aggregators like D&B or InfoUSA to validate a business, Marr said, underwriters can use nontraditional sources of data to build a more robust picture of a business.

"Today you can find a business on Google, you can see their Yelp reviews," she said. "Because computing power has advanced so much, you can leverage the public databases that were really hard for companies to be able to use. You can go to NOAA and get GIS satellite data. There are free satellite data sources that are available, free weather sources that are available. There are all these primary sources that used to be managed by those large data aggregators, and they're more available now. You have the ability to manage that yourself, if you want. That's the more advanced use of data in terms of technology.

"It also allows you to access more transactional or behavioral data. By scraping Yelp and getting reviews of a business, you get a sense of sentiment. You get a sense of the quality of that business and how they serve their customers. You get things you'll never see from an InfoUSA or a D&B or one of the credit bureaus. There's a lot more you can learn that, if you're applying advanced analytics to it, can help you better assess that risk."

Advanced data analytics are especially powerful for liability lines, Bryan said.

"Historical loss data for liability business is sparse," she said. "Data emerges slowly and it quickly loses credibility because of the constantly changing risk environments. One of the ways we're addressing that is through forward-looking modeling, which includes an exposure-based model that anticipates and incorporates changes in the liability risk landscape into the quantitative assessment of risk. It uses external data, not directly insurance-related data, to describe the world that generates the accidents without having to wait for the accidents to happen.

"We all know that what happened in the past is not necessarily what will happen in the future," Bryan added. "So advanced analytics lets us take advantage of real-time data and advanced computing power to model the exposures of the future and quantify the risks they will produce. We're forming a picture of the world that is causing the losses."

On the property side, publicly available data sources give more information about particular risks.

"The industry has now got information about square footage of buildings, flights of stairs in buildings, what the roofs are made of, how many windows," Ryan said. "From an aerial imagery standpoint, we can see the amount of open space around a building. We're actually looking at that information for underwriting on the liability side. What obstacles or hazards are around the perimeter of a building? Those are types of information, especially the pictures, that we didn't typically access in the underwriting process."

Ryan said census data, credit scores, LexisNexis data, demographic data and financial information also can be valuable in building models.

"Those data sources have been in existence for a long time, but they have not been as easily accessible as they are now," Ryan said. "We are constantly updating our models with the newest information available. That helps us inform our underwriting decisions here internally, but it also helps us build models that influence our clients' decisions.

"We've built a risk score model that helps our clients understand which policyholders will be more profitable than others."

Marr said that's the beauty of predictive analytics.

"Instead of having to wait 18 months for a policy to mature in order to know if it was profitable or not, you can know in advance where your profitability is heading," she said. "It allows carriers to align price to risk in a way that's really hard to do without predictive analytics. It allows you to do real risk-based pricing."

Future of Underwriting

Another consequence of data and technology advancements is improved underwriting efficiency. Carriers are using digitally augmented underwriting to automate parts of the process.

This combination of human underwriters and artificial intelligence-based programs can take several forms, Jeff Heaton, vice president and data scientist at Reinsurance Group of America, said.

"On one end of the spectrum, it is AI programs performing the entire underwriting task and referring cases to human underwriters when the program is unsure," Heaton said. "On the other end of the spectrum, it is simply using the AI program as an assistant to the human underwriter."

Last October, RGA launched its "AI-Augmented Underwriting System" with the goal of creating greater efficiency.

"An underwriting file can contain a great deal of information—much of it duplicated," Heaton said. "The augmented underwriting system being produced scans this underwriting file and identifies key components, such as individual health records, motor vehicle records, and all places that critical information about the insurance applicant are presented. These sections are compared and checked for consistency. This allows the underwriter to quickly navigate to the appropriate parts of the underwriting file."

While increased profitability is the primary goal of advanced data and analytics, certain underwriting lines, such as small commercial, need the efficiency gains just as much.

"Advanced analytics lets us take advantage of real-time data and advanced computing power to model the exposures of the future and quantify the risks they will produce. We're forming a picture of the world that is causing the losses."

Kassie Bryan
Swiss Re

"In the small and midsize commercial lines, you may have a loss ratio that's generally OK, but the challenge is someone is touching the policy too much," Chester said. "You have a human doing a lot of underwriting and administration on a policy that's $2,000 or $5,000. So even if the accounts are profitable, the level of effort going into it is way too high.

"Of course there's relatively more value in the loss ratio. But really the analytics and the data are enabling a big expense improvement by allowing the underwriter to reduce manually underwriting the $5,000 account or the $1,000 account. Those can be mostly underwritten by algorithms. And then the underwriter of course, will review the portfolio, look for trends, monitor adequacy, and continuously contribute to recalibrating and updating the algorithms. But they're not actually sitting there and manually trying to assess and underwrite thousands of small accounts."

Chester does not see automation or artificial intelligence replacing the human underwriter any time soon, particularly in commercial lines. But he does see the underwriter's role shifting in several ways.

"There will be less administrative and manual work and more thinking," he said. "We like to compare it to a physician who has a nurse or a physician's assistant come in and check blood pressure, take your weight, capture your medical history. Doctors have become more focused on patient assessment and less on the prep. Underwriting is going to be similar to that."

Chester also anticipates primary insurance underwriting will look more like reinsurance underwriting.

"Reinsurance is based on portfolio-based underwriting. It's looking at accounts in the aggregate," Chester said. "Primary and individual risk insurance will become more like treaty reinsurance, where you're looking at every individual risk and underwriting it, but you're also looking, almost in real time and in an integrated way, across the portfolio. You're taking a dual approach to look at the risk and its place in the portfolio at the same time."

The day will come when underwriting will be fully automated and computers, through machine learning, will be able to notice trends and update algorithms in real time. But that is still far off.

"As data gets better and as the algorithms are tested, there will be a time when decisions can be mostly, or even exclusively, data driven," Chester said. "Whether it's a decade or two decades away, or more, it's certainly no sooner."

Chester said commercial underwriters, at this stage, shouldn't be overly reliant on new tools and models. The art of underwriting, he said, is still at least as important as the science.

"It's important to not have too much faith and too much hope in what the tools and data can provide," Chester said. "If there is a tool or model built that gives you an answer, some companies fall into the trap of giving that answer more credibility than it should have. They've taken the emotion and human judgment out of the equation. But the answer provided by the algorithm is not necessarily accurate. It may be that the human judgment and the imperfect, emotionally driven decision might in fact still be superior to what the algorithm can produce. The reason is, the output is only as good as the data, and the data quality is poor.

"Second, risks change and they change pretty frequently. Algorithms today do not have the sophistication to proactively learn and adapt until new loss experience is already apparent. Third, it's not like personal lines where there's a very high volume of mostly homogenous risks. Even in small commercial, you still have a lot of heterogeneous risk. So it's easier said than done to build these algorithms that can provide insight around a particular risk in a seamless way." BR

Learn More

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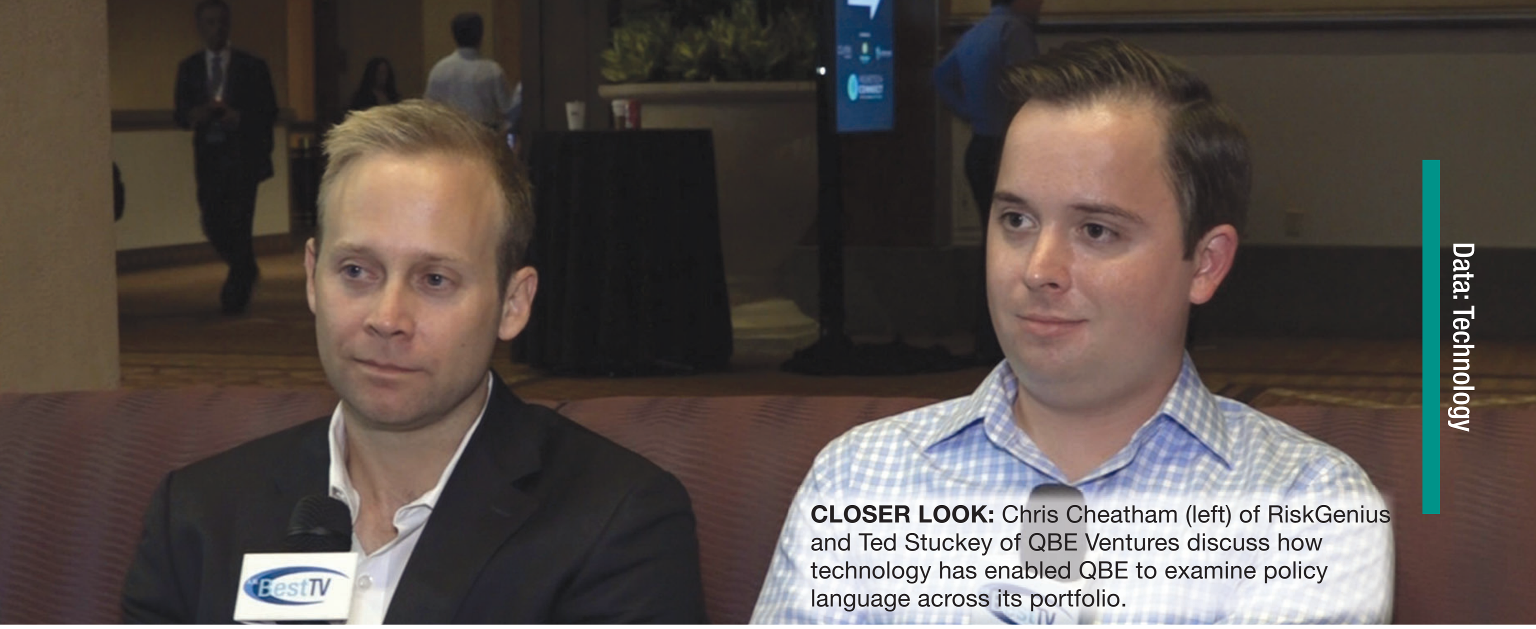

CLOSER LOOK: Chris Cheatham (left) of RiskGenius and Ted Stuckey of QBE Ventures discuss how technology has enabled QBE to examine policy language across its portfolio.

Words That Bind

Insurance policies have no shortage of clauses and endorsements. Insurers, however, often have little idea of the promises being made or the exposures they are covering.

by Kate Smith

When QBE Ventures launched in 2017, managing director Ted Stuckey was looking to invest in startups that could make a near-term impact on QBE.

His first partnership was with RiskGenius, a Kansas City-based technology company that uses machine learning to compare wording used in insurance policies.

RiskGenius' platform struck at the very core of insurance—policy language.

"I think it makes a lot of sense that RiskGenius was our first partnership, because it solves really a fundamental problem of the insurance industry: Understanding the promises that we make to our insureds through the words we have in our policy documents," Stuckey said. "What RiskGenius allows us to do is get a better understanding of: What are those promises? What are those words? What are the clauses that we're putting in there, and how can we better analyze them, get insights into them, and then make better decisions so that ultimately we can create better products?"

RiskGenius turns documents into data, then analyzes that data to compare and catalog the clauses and definitions used.

It didn't start out as an underwriting tool, however; it started as a claims solution created by two frustrated attorneys. Chris Cheatham was one of them.

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Cheatham developed a disdain for messy insurance documents while defending surety companies against bond claims. He and fellow attorney Doug Reiser set out to build a platform that would collect, organize and deliver claim documents to attorneys, consultants, accountants and claim handlers. They then pivoted into policy analysis.

In 2018, RiskGenius expanded into a new area—regulatory compliance. RiskGenius developed software to streamline the form-filing process, with the goal of expediting the turnaround time needed for examiners to review products and ensure they're compliant with all state regulations. It is working with 10 departments of insurance to pilot the web-based platform.

"We expanded into the regulatory compliance market because regulators asked us to," Cheatham said. "It started with the Iowa insurance commissioner suggesting to me that there was an application for RiskGenius within the System for Electronic Rates & Forms Filing [SERFF] system.

"After a year of discovery, we realized that RiskGenius can help with the filing process in a number of ways. First, carriers and states can review regulations and discussions next to relevant clauses in our software, something they could never do before. Second, carriers and states can research similar clauses that have been accepted or rejected in the past. We are excited to bring these innovations to the filing process and the 10 states we are piloting with."

AMBest TV spoke with Cheatham and Stuckey to discuss how RiskGenius converts insurance documents into data and tools for the industry.

Below is an edited transcript of the interview.

Chris, can you give us a glimpse of how RiskGenius works?

Cheatham: Just think about a document that has lots of clauses in it, and if it's an insurance policy, probably there are a lot of them. You have thousands of endorsements, because of how you have to attach policies. What our software does is, it takes that document with all those clauses. It identifies the clauses, and then it labels them—"exclusion-war" or "definition-asbestos," or lots of different variations. Then it stores this big clause index, where then the user can go in, grab a document, or multiple documents, click a button for definition of war and see it right away in that policy. Or they can compare their definition of war to other versions of definitions of war in their database. It's a lot of understanding of language at a very elemental level that hasn't really been done before.

Is there a lot of inconsistency in language within these policies?

Cheatham: Massive.

There was one example where one carrier we talked to had 100,000 forms. They didn't even know how many variations of the definition of environment they even had. A lot of times, you don't even know what you have.

For example, with the opioid crisis right now, what language do you have in your policy that could affect that? There's no great way to figure that out right now. If you're just storing your documents as individual documents, you have to go through each one, one by one. Whereas you can pinpoint a clause very quickly in our system and say, "All right, which of the policies have that exclusion for pharmaceuticals and which ones don't?" Then you can start picking up what you have in your policies, and understanding your risk.

Why is it important to be able to compare the policy language? What's at risk?

Cheatham: Number one, you may want to be creating new products. If you're in the property group, and you need to start including a cyber exclusion, you may ask: "What other cyber exclusions have been written within our organization before?" You can go in and find those very quickly.

Another example is looking backward (at bound policies) and figuring out, for example: What have we included in them for cyber, or are we silent on cyber? We can figure out if a judge rules in the future that we don't have a cyber exclusion and so we're responsible, how many of those policies are out there.

Stuckey: It's a quintessential enterprise risk management conversation. We're writing these policies.

We're making these promises to insureds. If we don't have a firm grasp on, "What are those exclusions? What are those definitions? How loose or restrictive are these policies?" then we could be on the hook for a pretty massive loss if we're not careful. As an organization, it's our responsibility to understand, both for our insureds, for the regulators, for the shareholders, what we're doing. What are we writing?

A product like RiskGenius allows us to get those analytics. For us, it's taking it a step above what Chris talked about, where you actually get the clauses themselves, and it's looking at the analytics. It's saying, "What percentage of the policies that we write have this master clause in them? What percentage of them allow for these types of losses, versus don't allow?" Then we can take a step back, look at ourselves, and look at the way that we're accumulating the risk, the way that we're writing risks, so that we're better positioned when we ultimately have to make a claim payment.

Is there some kind of a competitive edge or a competitive risk to not knowing that?

Stuckey: I think definitely, as an industry, we're better off if we're not hiding behind our language. We're better off if we're much more open about the policies that we write, and what's in them. From our perspective, certainly, it allows us to be more responsive in times of massive disasters or massive needs. If you think back to Sept. 11 and right after that, all the carriers started going through to understand which of their policies had war and terrorism exclusions, and what was the actual language of those, so that they understood what their exposure was to that.

If you actually take a step back and try to understand, "What is that effort that's required to do that?" it's literally a bunch of lawyers looking through page after page, word after word, and doing that analysis by hand. That's not sustainable as we continue to innovate with new products, as we continue to scale as carriers globally and from a product perspective. You need a platform like this to do that, otherwise it's not possible for some carriers. It's not really an option to not do it. You really do need to understand those promises that you're making.

Did you run some kind of a proof of concept with RiskGenius?

Stuckey: Absolutely. The minute we introduced RiskGenius to our business partners within our North American organization, there was an immediate connection that the problem they were solving was a very real problem.

Then certainly, the next question is, "How good is it? How quickly can we turn this around?" We ran, I would say, a relatively intensive proof of concept with RiskGenius—something like 8,000 documents, and probably close to a dozen users across the U.S. And we literally went in and manually understood, "What's the time difference between this task and that task with RiskGenius? How much more quickly can we answer those questions from the field? How much more accurately can we understand our exposure, or our units at risk?" Ultimately, it got to the point where we recognized this is the product that we want to move forward with and deploy more broadly across all of our business units in North America.

Can this be used in underwriting as well?

Stuckey: Yes, we see use cases across the board. Obviously, there's a massive lift for the product development team, but from an underwriting perspective, it arms you with so much more information at the point of sale. Whether you're talking to a broker about why your product is superior, you're giving more insights to a broker or an insurer around what's covered and what isn't. On the claims side, it's very efficient for them, then, to look back into that policy and understand what's excluded and what isn't at the point of first notice of loss. We see use cases all across the organization. Then also at a groupwide level, where you're doing more of those analytics around, "What's our cyber exposure? What's our war and terrorism exposure? What's our asbestos exposure?" Things like that, that we really can't get a fine level of detail or insight on without a massive amount of effort today.

Is it machine learning that is powering this?

Cheatham: Yes, the machine learning's really looking at those clauses and saying, "All this content in this particular clause, we think it means the same thing as this other clause that we've already looked at before. This other clause we've already looked at before, we called it a war exclusion, so we're going to call this one a war exclusion, too." It's using words, sentences, and the parameters around all those words to score them against everything else in the database.

Stuckey: It's crazy to think that you need machine learning to do this, until you actually understand what it's doing. If you look at an insurance policy, actually capturing what specific clauses are is not straightforward. You need some intelligence to break those clauses out, break those definitions out, start to draw a correlation between multiple clauses and things. That's where a lot of people don't fully appreciate the power behind this and the problem that it's trying to solve.

It's not just taking all the words and dumping them into a Word document. It's actually structuring out individual clauses, allowing for redlining to happen in between clauses where there's gaps and stuff. That's some pretty smart stuff. BR

AMBestTV

Go to *bestreview.com* to watch the interview with Ted Stuckey and Chris Cheatham.

Data: Life Insurance

A REVOLUTION IN UNDERWRITING

The race to develop accelerated products has driven life insurers to cautiously embrace the next generation of data.

by Jeff Roberts

The sweeping letter was a warning to the industry.

It spilled over six single-spaced pages and 2,000 words, putting life insurers on notice for the emerging use of unconventional data in their automated underwriting.

Data such as criminal and civil judgments. Credit information. Retail purchase history. Internet and mobile device usage. Geographic location tracking. Even social media and facial analytics, sources rarely used now but expected to be widely adopted in coming years.

After an 18-month investigation into insurers' underwriting practices, the New York State Department of Financial Services leveled a stern warning: Apply external data only if you can justify its actuarial validity and independently verify it does not discriminate or contain prohibited criteria.

But also tucked into that guidance was approval for using third-party data that has "the potential to result in more accurate underwriting," the January letter read.

And with that, the influential regulator became the first to establish specific guidelines just as the exploration and application of nontraditional data in algorithms soars.

"The gist of that letter was insurance companies couldn't outsource whether [the data] was discriminatory to the vendor. It was on them, so they better know what they're doing," said Tom Scales, head of life and health insurance at Celent.

The race to perfect fully underwritten, accelerated products using algorithms, predictive modeling and analytics as a substitute for paramedical exams and fluid tests has driven life insurers to increasingly embrace new forms of data.

Leveraging it enables carriers to provide a shorter, cheaper and more customer-friendly approval process amid rising consumer expectations in an Amazon world.

But that emerging data carries a host of privacy and regulatory concerns. It also presents accuracy and reliability issues that need to be addressed.

However, accelerated underwriting and external data remain "the No. 1 topic" in the industry, Scales said. "How can we change the way we underwrite? How can we do instant underwriting?"

Key Points

Hot Topic: Unconventional data driving accelerated underwriting is "the No. 1 topic" in the industry.

Emerging Data: Everything from credit information, retail purchase history and even social media and facial analytics could soon impact underwriting.

Accelerated Competition: In two years or less, every carrier in the industry will offer accelerated underwriting at a fully underwritten price, driven by competition.

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Using alternative data from new sources such as social media and other digital footprints is "the next big thing" in life underwriting, said Mike Vogt, executive director of data, analytics and machine learning for technology consulting firm SPR.

"We are at the beginning of the curve with how insurers are applying unconventional data," he said. "The biggest change and the biggest risk will be the information that we gather from social media and [artificial intelligence] will actually lead to more accurate risk predictions—at the expense of privacy."

About 25 U.S. insurers offer accelerated underwriting using nontraditional data streams, and several more are testing platforms.

The objective is to skip the invasive medical tests whenever possible without losing precise risk assessment and fraud detection.

"It's a game-changer. Unless there's a regulatory challenge, we're 24 months from everybody doing it at a fully-underwritten price, at least up to a certain age, because your competitor is going to do it," Scales said. "That's the heart of all this. It's not simplified issue.

"This is the same price as a regularly underwritten product. It's just underwritten differently. It's part of an ecosystem change."

Insurers are using data analytics tools such as LexisNexis Risk Solutions, TransUnion TrueRisk Life Score and MassMutual's LifeScore360 to cull data and supply a mortality score from a wealth of sources.

Think of those scores as the mortality version of credit scores in the mortgage loan process. They have developed over the past five years, and in the case of LexisNexis, include information from more than 20,000 databases.

Meanwhile, a new frontier of alternative data is emerging from social media, facial analytics, retail purchases, public filings and epigenetics—the study of how environment and lifestyle choices such as diet, exercise and substance use influence mortality at the molecular level—to further understand and price risks. One day, genetics could join them.

The products people buy, the services they use and even the magazines they read can be highly predictive of policyholder longevity, analysts say. And so can the things they say and the photos they post on social media.

Only a "small handful of carriers" are using such information, said Samantha Chow, senior life insurance and annuity analyst at research and advisory firm Aite Group. But many insurers are exploring them.

"You're talking about everything from scoring data to social data to data from selfies and DNA," she said. "Over the next couple of years, you'll see people utilizing more advanced scoring methodology using this type of data.

"How soon depends. How scary is it? It's not about changing how they underwrite. It's about being more accurate in their underwriting, pricing and improving the overall experience."

Rapid Progress

The embrace of alternative data is growing rapidly.

Five years ago, nearly all carriers told Scales they were either not ready for accelerated underwriting, "or they called me an idiot" just for asking about it, he said.

Just a year ago, many insurers were still debating whether they should offer a fully underwritten product using external data.

But the "life underwriting revolution," as Scales called it, has arrived in earnest.

"They're tightening up the experience to the point where they expect their take-in rate is going to go up because it's going to be easy," he said.

The old way is not. Forcing consumers to fill out applications that exceed 25 pages on average and undergo a medical exam has contributed to long-term declining sales trends.

"While these tests help ensure efficient underwriting, they add considerable time to the application process, and are undesirable and uncomfortable for insurance applicants," said Jeff Heaton, vice president and insurtech data scientist at Reinsurance Group of America, in a written response to questions. "The desire is to use new data sources that can be obtained simply by obtaining the permission of the applicant."

Such data streams can become effective underwriting tools, especially as a supplement to the four traditional sources: applications, Medical Information Bureau reports, prescription drug histories and motor vehicle records.

Unconventional data sources range from census information, public filings (homeownership records, bankruptcies, property deeds, tax filings and licensures), credit information and geographical data (community-level mortality, addiction and smoking data).

More alternative data such as digital footprints, social media and purchase histories—encompassing everything from consumers' grocery store receipts to the publications they subscribe to and services they use—may soon augment current rating factors.

Much of it is supplied by data brokers and insurtechs that collect and analyze information, then package it and sell it.

Just one out of 160 insurers operating in New York told the state's regulators it was using social media, retail purchases or internet activity in underwriting, *The Wall Street Journal* reported in January.

Then-New York DFS Superintendent Maria T. Vullo told the newspaper that the objective of the letter was to establish ground rules before the use of such information became mainstream. Many expect that to happen soon.

But algorithms and models are only as accurate and unbiased as the information that feeds them, as the letter from the regulator warned.

"The relationship between the vendors and the carriers is going to have to change, and there's going to have to be more transparency," Celent's Scales said. "But that was inevitable."

Privacy and regulatory concerns have given many insurers and vendors pause.

"Over the next couple of years, you'll see people utilizing more advanced scoring methodology using this type of data. How soon depends. How scary is it?"

Samantha Chow
Aite Group

Insurtech data analytics firm Carpe Data "definitely explored" solutions for life underwriting, said CEO Max Drucker. But it was dissuaded by the contentious privacy debate.

"There is a lot of controversy around social data to make life insurance decisions," Drucker said. "We focus on small commercial because no one is arguing about privacy or whether it's right or wrong."

Social Network

The digital lifestyles of the 21st century have given birth to new ways to evaluate risk.

Did a consumer post photos on Facebook showing him smoking or skydiving? Did an applicant post a video of herself on Instagram while at the gym or tweet about her love of kale?

"Posting a bunch of pics of drag racing, ice climbing, partying a lot … that indicates a pattern of risky behavior," Vogt said. "But posts of running half-marathons and healthy eating paints a very different picture."

But using social media in life underwriting has proven challenging.

The cost, time and complexity of monitoring such information at scale and converting it into a metric or score remain obstacles to wide utilization.

"They're not to the point where they can look at your social media posts and other kind of data that isn't scorable for underwriting," Scales said. "Some of this comes back to regulation. You've got to be able to actuarially prove the decision you're making is not only accurate, but is not discriminatory."

But they are testing it, according to John Lucker, a principal with Deloitte Risk & Financial Advisory and global advanced analytics market leader.

"I've talked to numerous life insurers and they are experimenting with it," he said.

The capability already exists to apply other alternative data in rating applicants.

In fact, some vendors and insurtechs have expressed frustration with insurers that have explored emerging opportunities, but have not put them into practice.

"These insurtechs have great solutions, and the carriers come out and invest in them," Aite Group's Chow said. "Then they put them in their basement so no one else can benefit from their tools and give them only a part of the data they need to do their proof of concept.

"I've seen this happen a couple of different times."

So startups have begun changing their business model seeking partnerships with carriers rather than complete funding.

Some of those insurtechs offer facial analytics, in which selfies are examined to glean health and lifestyle information by studying the lines and contours on a person's face.

Color variations in the whites of someone's eyes can show the presence of certain conditions. Lines around the mouth can indicate a smoker. Dark spots can offer information on how someone is aging and even their life expectancy.

About 20 insurers reportedly are testing Lapetus Solutions facial analytics technology. One of them, Gen Re, launched a prototype app in February that allows consumers to purchase insurance by uploading a selfie to calculate their estimated age, gender and body mass index.

Insurtechs have also embraced epigenetics and how environmental and lifestyle factors potentially can "turn on or off" positive or harmful genes.

"Epigenetics can tell you about basically everything," Chow said. "It's about as close as you can get to DNA testing. And it's not intrusive, especially for people afraid of needles" because tests use a saliva sample instead of drawing blood.

Wearables—which John Hancock applies with its Vitality program, now part of all of its life policies—are also "something that everybody's thinking about," she added.

They track heart rate, sleep patterns, exercise and other factors that anyone who owns an Apple Watch or Fitbit already records.

Insurers can build customer loyalty and engagement while gleaning information to improve mortality experience.

Eventually, life insurers will have enough data at their disposal to even preapprove some consumers, much like a credit card company does, Scales said.

At What Cost?

But will consumers trade their privacy for convenience?

The more capabilities presented by emerging data, the larger the privacy and regulatory issues loom for insurers. The Cambridge Analytica/Facebook scandal only exacerbated fears that Big Brother—and your insurance carrier—are watching.

Many consumers view the thought of their insurer scrolling through their Instagram posts and shopping histories as a violation of privacy. Others balk at reporting biometric data from their Apple Watch, even for a discount.

Lucker wonders if the value of social media will eventually be negligible, with a growing segment of privacy-conscious consumers locking their accounts or scrubbing them of certain behaviors.

But the industry and analysts say customers have long had to voluntarily surrender personal information—such as medical records—in order to gain coverage. Some ask if granting access to that data is not a preferable trade if it means skipping an invasive medical exam and fluid screens.

And in the meantime, younger generations grow ever more comfortable posting their entire lives on social media. They might not be so bothered by insurers, or anyone else, probing their accounts.

"Life insurance doesn't work without data," Scales said. "They're so fundamentally built on the fact that if you have triggers that are going to cause you to die early, they can't give you a cheap rate."

The industry needs data, but it also needs to know from where that data originates. And as the New York regulator warned, insurers need to be transparent in disclosing the reason for a rejection or other adverse action in accelerated underwriting.

That might not be easy considering the large volume of external data that goes into carriers' complex algorithms. It is one of the many sensitive issues involving next-generation information.

Those uncomfortable topics may be why some insurers have chosen not to address emerging data publicly. AIG declined an interview request through an outside public relations firm. Scor did not respond to an email. Swiss Re said no one was available for comment.

MassMutual released a statement.

"MassMutual's ongoing investments in data science—along with advancements in technology and data aggregation—have enabled us to improve on all of the traditional ways we've utilized data, while also providing consumers with quicker and easier access to the peace-of-mind and financial protection that life insurance provides," the company said. "Benefits include the opportunity for fewer and less invasive tests for the underwriting process and an enhanced ability to accurately assess risk. Additionally, and importantly, MassMutual is committed to the fair and responsible use of any external data in life insurance underwriting."

The New York DFS declined an interview request, citing a lack of available staff. It then declined to answer written questions about the guidance letter and the investigation that preceded it, saying it does not comment on specific details of an investigation.

While insurers explore more alternative data, they continue to venture further into information sources that can be easily and quickly obtained that won't pose regulatory issues. Electronic health records, including individual clinician records, and financial information purchased from third parties are increasingly a common source.

One day soon, consumers' Instagram accounts and retail purchases may join them.

"This is just applying technology and applying data to be the logical, next evolutionary step," Scales said. BR

Weighing In On Wearables

Consumer and medical wearable devices are opening up a new data portal for health insurers, but many are still grappling with how to use that information.

by Lori Chordas

When the Apple Watch debuted in 2015 users were excited about the ability to track their simple daily activities, such as steps and caffeine intake in a compact device that banded around their wrist.

Four years later, the Apple Watch's latest iteration includes more advanced functionality, such as the ability to take an electrocardiogram to screen for potentially life-threatening conditions like atrial fibrillation.

Features like that are evolving to provide a detailed glimpse into a person's medical history and health behaviors. That's also opening up a new portal of real-time digital data for health plans.

However, many insurers have struggled to fully take advantage of this mountain of new data they sit on now.

There are a number of challenges in using that data, and most carriers are still grappling with regulatory constraints, data privacy concerns and questions about the accuracy of information generated by wearable devices, said Nick Milinkovich, an associate partner in the insurance practice at McKinsey & Co.

Those gadgets, including wrist-worn fitness

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Key Points

Weighing in on Wearables: Wearables and fitness trackers have evolved from counting steps to helping detect and manage chronic diseases.

Digging into the Data: Health insurers are struggling to find ways to use that data to transform health care and improve their members' health outcomes.

Full of Potential: Data from wearables could help insurers better price policies for the needs of individual users and identify early-stage disease to drive down health care costs.

trackers, smartphone health apps and consumer and medical wearable devices, can now measure just about every health metric, including heart rate, blood pressure, respiratory rate and blood glucose level. They can also detect and monitor diseases such as chronic obstructive pulmonary disease, cystic fibrosis and diabetes.

Health insurers are now using that data to create fitness programs and deliver employee wellness benefits to cultivate a healthier workplace.

"But there are also other opportunities to use wearable data to more accurately price insurance and develop new products. Most insurers just haven't gotten to that point yet," Milinkovich said.

Untapped Data

Health insurers have historically relied on data gathered by health care practitioners during medical exams, results of invasive medical testing and information provided by customers on paper insurance applications to capture a snapshot of their members' health habits and medical histories. External vendors later developed health risk assessment tools that applied analytics to these sources and assisted in providing a more in-depth evaluation of an individual's health risks and quality of life.

When wearable devices burst onto the scene in the mid-2000s, the expectation was that new data from the devices would help insurers rapidly up the ante in assessing an individual's lifestyle, providing early warning signals of specific conditions and monitoring treatment efficacy.

While that has emerged in isolated areas, most health insurers continued to rely on traditional data sources to understand their customers' potential risk, Milinkovich said.

Today, about one in six Americans wear some type of consumer fitness tracker or smartwatch, according to the Pew Research Center.

There's also growing use of noninvasive, clinical wearable medical devices, often in the form of clothing, skin patches, contact lenses and more. Those devices monitor and control specific medical functions and vital signs, provide real-time access to health records and offer quicker diagnosis and treatment of conditions.

Health insurers use a blend of those devices, along with mobile health applications, to support wellness, chronic disease and health management programs, said Brian Kalis, managing director of digital health at Accenture.

"Those types of programs are commonly being used to bolster member loyalty and individual engagement and with the aim of curbing the progression or onset of costly chronic diseases by having at-risk members take a more active role in their health," he said.

However, data generated by those programs remains largely untapped.

"Right now health insurers are just trying to wrap their arms around the granular information to understand what the data is telling them to see if it's something they can act on," said Doug McElhaney, a partner in McKinsey & Co.'s insurance practice.

"For example, they're trying to figure out if they can construct profiles from the data to create a health persona, and then there's the question as to whether the data provides a signal as to what future outcomes might look like," he said.

Put to the Test

Health plans are hoping their incentivized wearable programs will help answer some of those questions.

Earlier this year Aetna partnered with Apple to launch a new program that allows Aetna members to use an Apple Watch to personalize health goals, track their daily activity levels and receive recommended healthy actions and rewards for those actions.

Aetna plans to use the data it gathers from its Attain program to create new program features and offer participants more personalized recommendations to provide greater context and decrease barriers to health care.

Aetna said it doesn't plan to use the data for underwriting, premium or coverage decisions.

Several years ago UnitedHealthcare created its national Motion walking program to enable participants to use their Apple Watch and other wearables to track daily walking steps and earn financial rewards when reaching those walking targets.

By meeting the program's three daily "FIT" walking goals (frequency, intensity and tenacity), program participants can earn more than $1,000 per year in financial incentives.

The wearable device walking program encourages participants to achieve an average of nearly 12,000 steps per day—more than double the number of the average American adult.

While other incentivized wearable programs provide a host of data about a person's health history and habits, there's also much to be said about leveraging just the very basics, said Paul Sterling, vice president of emerging benefits at UnitedHealthcare.

"Through our program we leverage information only about participants' daily step counts. But that's powerful data that can help our members establish a baseline, motivate and help them make walking a part of their daily routine," he said.

Cost Containment

Cost containment is often an indirect benefit of wearable programs, Accenture's Kalis said.

UnitedHealthcare's Motion wearable device walking program has cut member health care costs by $222 per member per year, Sterling said.

"That's significant. If people engage and meet daily objectives over the course of a year that manifests into dramatic savings, which is good for participants' overall health, their finances as well as the health care system as a whole," he said.

"For example, improving medication adherence in a clinical program may also indirectly eliminate costs associated with unnecessary emergency room visits. Or participants losing weight in a pre-diabetes program may circumvent costs associated with the onset of diabetes further down the road," Sterling said.

Wearable data can also save members from costly lab tests and medical exams. Gadgets such as the Apple Watch 4 can now perform tests such as electrocardiograms to identify conditions like atrial fibrillation and prevent disease before it strikes.

Today more than 2.7 million Americans have atrial fibrillation, a leading cause of stroke and hospitalization in the United States. That number could rise to as high as 12 million Americans by 2020, according to the Centers for Disease Control and Prevention.

"Today, everyone is getting savvier about trying to connect the dots as much as possible. But ultimately you still need different data sets merged together to get a full picture of what's happening within your member populations."

Heidi Guetzkow
Lockton

Data Accuracy

As health plans begin to embrace the exchange of data from wearable devices, they need to securely transfer private health information in a seamless, easy manner to ensure compliance, security and regulatory requirements are met, said Heidi Guetzkow, health risk solutions program manager at Lockton.

The Health Insurance Portability and Accountability Act of 1996 requires covered entities to implement safeguards to protect the confidentiality and availability of personal health information.

Members enrolling in Aetna's Attain initiative must opt into the program and select what data and health history information they want to share with Apple.

Aetna gathers the data, encrypts it on an Apple Watch device and on Aetna and Apple's servers, and then stores the information in a secure environment using HIPAA-compliant practices.

Consumers are more willing than ever to exchange wearable device data.

Last year, 72% of respondents in Accenture's *Digital Health Consumer* survey said they were willing to share that information with their insurer, up from 63% in 2016.

But just how accurate is the data?

In 2017, researchers at Stanford University School of Medicine examined the accuracy of seven types of wrist-based fitness trackers that measure heart rate and energy expenditure. They found six of the seven devices measured heart rate within 5%, none measured energy expenditure accurately. In fact, the most accurate device was off by 27% and the least accurate was off by 93%, according to the study.

But much has changed in the last two years.

In March, Stanford researchers presented preliminary results of an Apple Heart Study of more than 400,000 participants. The researchers reported that wearable technology can safely identify heart rate irregularities that were later confirmed to be atrial fibrillation.

Lockton's Guetzkow is also fairly confident in the accuracy of data coming from wearable devices. "Biometric readings like heart rate and blood glucose levels seem to be quite accurate and well-tested; step counts, however, may be less precise. Wearable information alone doesn't tell the full story," she said.

"Today, everyone is getting savvier about trying to connect the dots as much as possible. But ultimately you still need different data sets merged together to get a full picture of what's happening within your member populations," Guetzkow said.

More to Come

By 2020, more than 189 million wearable gadgets will be sold across the globe, according to market intelligence and advisory services provider IDC research. Capabilities inside those gadgets and devices themselves will also evolve.

For instance, researchers are now developing a tiny wearable patch device that will lie under the skin to monitor calcium levels to detect early prostate, lung, colon and breast cancer signs.

Also, a team at MIT is designing a jaw-mounted intelligence-augmentation device that will be able to read neuromuscular signals and internal brain

Health insurers use a blend of [wearable medical devices], along with mobile health applications, to support wellness, chronic disease and health management programs.

Brian Kalis
Accenture

patterns through built-in electrodes.

As devices become more sophisticated, so too will the quality of data generated by those devices, said Lockton's Guetzkow.

"The ability of real-time interactions will also improve. However, data integrity and security always have to be at the forefront as new technologies emerge," she said.

Behavior change is a critical part of the mix.

"It takes customers changing their day-to-day behaviors in order for this data to enable better health outcomes, and we know that behavior change is not a data issue," McKinsey's Milinkovich said.

"Designing a product that incentivizes people in the right way to change their behavior is a very complicated exercise that needs to balance short- and long-term incentives. Using this new data to create value for the end customer is a complex issue too, and it's taking insurers longer than expected to come to market with something game-changing," he said.

Data and new uses of that information will remain a top-of-mind issue for health plans.

Cigna President and CEO David M. Cordani said in the company's 2018 fourth-quarter earnings call that one of the top goals of Cigna's recent acquisition and integration of pharmacy benefits management provider Express Scripts is to harness its combined data to better predict and identify conditions or behaviors to connect providers and customers.

Wearable data has the power to help make those types of connections.

More than half of the respondents to Accenture's 2019 *Digital Health Consumer* survey now use a wearable device or app to manage their lifestyle and health care conditions. That's twice as many as in its 2016 survey.

"Today, most consumers are willing to share data from those devices with their doctor (90%) or other health care professional (88%). This appetite for digital services will continue to share the advancement of programs and evolve the range of future medical uses," Accenture's Kalis said.

However, insurers are still grappling with the notion of a data universe that has ballooned exponentially over the last five years and just being able to use all that data, McKinsey's McElhaney said.

"At the same time more information comes online, carriers are starting to build out their analytics capabilities. They're still a bit behind other industries and can't yet take full advantage of all of the data. So there is still a mild disconnect between the capabilities they have and the new avalanche of data coming into the door," he said.

McElhaney expects that over the next several years insurers will begin to discover how to ingest that data, along with information coming from new and evolving devices.

"However, this increase in data may create a sustainability challenge because if you build something today, such as an advanced heart rate monitor wearable device, over the next five years connected clothing may offer even more health information. Then the product has to change to make sense of all that new data," he said.

The biggest change going forward will be the emergence of ecosystems, including the data ecosystem, Milinkovich said. "How do you create standards so that the information coming in is the same and is able to be read by multiple carriers across multiple devices?

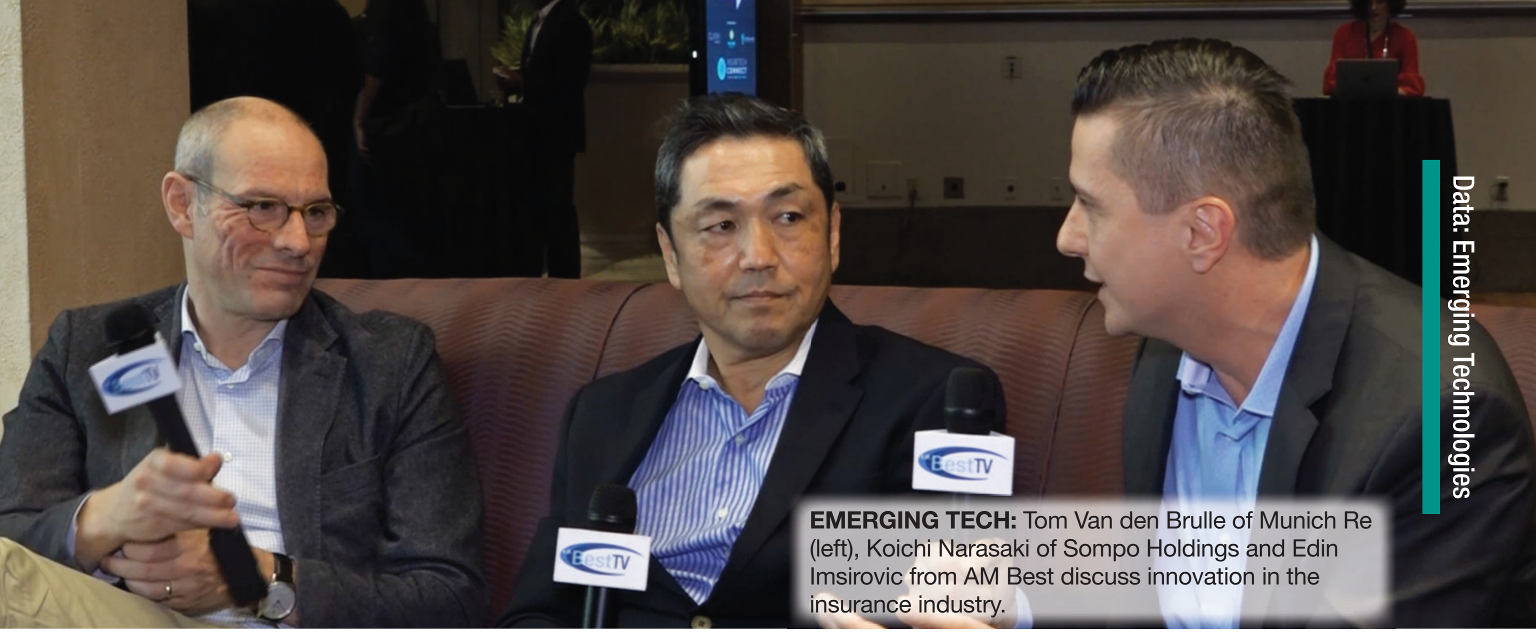
"So for health insurers to do something with wearables, it's not just about the device data but the products they're going to have to create for different customers. That will involve a connected ecosystem of carriers, diagnosticians, providers, startups, benefits providers and others becoming more linked to provide customers with a differentiated experience," he said. BR

Learn More

Aetna Inc. Group (AM Best #058700)

UnitedHealth Group (AM Best # 069973)

For ratings and other financial strength information visit *www.ambest.com.*



EMERGING TECH: Tom Van den Brulle of Munich Re (left), Koichi Narasaki of Sompo Holdings and Edin Imsirovic from AM Best discuss innovation in the insurance industry.

Technology and Transformation

Insurance panel: Genomics, blockchain are likely to be "big transformable technology" for the insurance industry.

by Kate Smith

More than 80% of insurers say innovation is moderately critical to extremely critical to their organizations, according to an AM Best survey. But while innovation may be the buzzword du jour, defining its meaning is not necessarily a top priority for executives in charge of it.

"We don't really define it," Tom Van den Brulle, global head of innovation for Munich Re, said. "We're not interested that much in the definition of innovation, because it takes your time and focus. What we're interested in is finding new business models. That is the focus of what we're doing.

"We're trying to understand what are going to be the business models that are going to make a difference in the future. That is probably, at the end of the day, our definition of innovation."

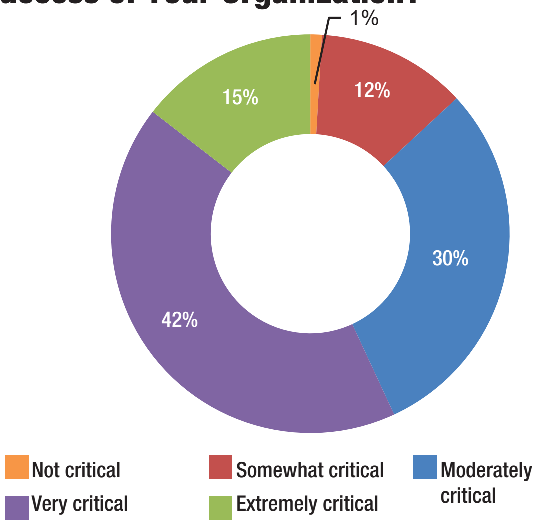
Koichi Narasaki, group chief digital officer for Sompo Holdings, said innovation is about self-transformation.

"Your definition of innovation itself doesn't really say anything," Narasaki said. "What we're trying to do is more leaning toward a disruptive innovation, which means a redefinition of ourselves, our business, our processes, our customer experiences."

AMBestTV sat down with Van den Brulle, Narasaki and AM Best Senior Analyst Edin Imsirovic to discuss which emerging technologies could transform the industry. Below is an edited transcript of the conversation.

Kate Smith is a senior associate editor. She can be reached at *kate.smith@ambest.com*.

How Critical Is Innovation to the Success of Your Organization?



Source: AM Best data and research

What are some of the technologies that could shape the future of insurance?

Imsirovic: To me, it's not about specific technology. It's about a whole host of different technologies coming together and creating value within a value chain or transforming the value chain. It's not necessarily about the disruption. It's about the transformation of the insurance industry.

We're increasingly seeing digitalization of the physical world driven by the explosion of data, explosion of IoT devices, and AI analytics. That's really allowing us to analyze and automate the world at an unprecedented level of detail.

The implications of this for the insurance industry are really interesting.

Van den Brulle: I do agree. At the same time, there are a couple of technologies out there that might be interesting as technologies to the insurance industry.

When you're looking at genomics, for example, what it can do to life insurance and personal insurance, and how you can evaluate risk only through analyzing their genetic information. That has a huge impact on how life insurance, probably also health insurance, is going to be assessed and sold in the future. That is a clear technology issue.

In terms of changing the way insurance works, which technologies have the most promise?

Van den Brulle: Blockchain technology has a very clear implication on the business model and how insurance, as a business model, is going to be put together.

I'm not saying they're going to be necessarily successful. What RiskBlock is doing, what B3i is doing, what different initiatives are doing in terms of putting together a digital marketplace on the blockchain technology—that has a big implication technology-wise only.

For AI and machine learning, I'm completely with you. That it's more about, OK, how do you use it? How do you implement it into the, let's say, classic value chain if you like? For genomics and blockchain, for example, it can be different.

Narasaki: I could not agree more. If I am to pick out the big transformable technology or technology as a catalyst for our industry, blockchain and genomics. By the way, we're digging into both of them very seriously because we are probably betting our firms on these two things to completely transform or better our industry.

The blockchain is not just simply a distributed ledger; it is a marketplace. Also, it's a network of trust. You can't cheat somebody. You can't con somebody. It's completely democratic and distributed. In that way, nobody can mess with this.

Imsirovic: I absolutely agree on the blockchain. The exciting part about blockchain, to me, it removes friction from the economy. It removes the centralized trust managers or third parties from the equation and emulates them through algorithms and cryptography.

Three years ago, I felt like everybody was talking about blockchain. Why isn't it widely used yet?

Van den Brulle: The insurance industry has not yet thought through the opportunities of blockchain because we were so obsessed with cryptocurrencies in the first place. Cryptocurrencies are just one application of blockchain. There can be many more.

The second thing is that the human brain has difficulties to understand and to project this distributive way of sharing information or sharing information and processes. It's much easier to project it in a central manner.

The third thing is that the first-use cases are just out there. Give it some time to really understand what they can come up with. The first products on flight delay and weather-related insurance products have been tried out. A lot of learnings have been gathered, but I'm sure there's more disruptive stuff to come.

What are some of the emerging technologies that you find personally really exciting?

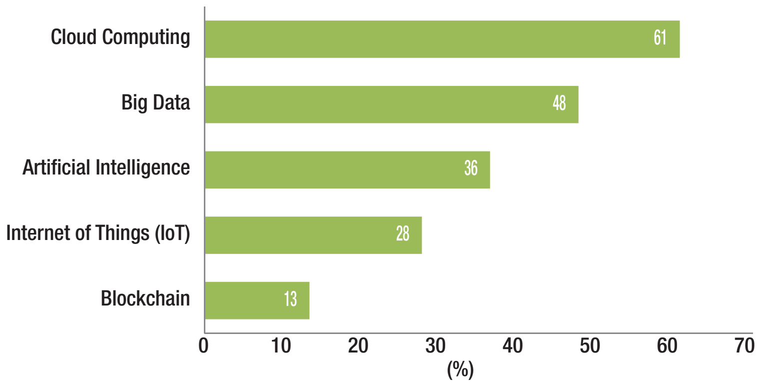
Imsirovic: Quantum computing. I just find it exciting. We're reaching the limits of Moore's law, at the moment. We're at the 10 Nanometer process. We are getting subatomic interference in the processes and so it's a whole new paradigm of computing.

I feel it's a type of technology that can advance AI. AI in current uses is very narrow and we need to expand it. I think quantum computing may allow us to do so.

Narasaki: Yes, quantum computing. Currently, Moore's law is in a way hitting the wall. From this point on, to overcome let's say the wall, firewall, or Chinese wall, we have to have something disruptive.

Van den Brulle: I'm more of a simple guy, but I am already very excited by the application of AI technologies and machine learning

Has Your Company Invested, or Is It Planning To Invest, in Any of the Following?



Source: AM Best data and research

“We’ve learned that hierarchies don’t make that difference. We have to listen to people who know, rather than to people who have a certain role and a certain responsibility in the company.”

Tom Van den Brulle
Munich Re

to what we’re doing today. I find that breathtaking, honestly. I couldn’t have imagined it two years ago.

Technology is one aspect of innovation. What are some of the other big pieces of it? Talent?

Van den Brulle: I’m glad you say that. I’d been saying this just the other day in a meeting: It’s about mindset and people. How creative they are. How they blow you away with new ideas and with sheer energy and willingness to understand things and to develop things. That’s much more powerful than every technology that I have seen so far.

Has your view of the role of technology in innovation changed? Did it used to be about the technologies, and now you’ve broadened the view and say it’s at least as much about the people?

Van den Brulle: That’s a good question. The only thing I have learned is that we don’t know enough, so we’re constantly learning. It’s not only in terms of how to manage things but also technology-wise. You need to constantly learn and understand how things work in order to put them together to the benefit of our clients and our investors. What can be new in business models, products, services? How can you use this?

The second thing is, we’ve learned that hierarchies don’t make that difference. We have to listen to people who know, rather than to people who have a certain role and a certain responsibility in the company. That gives a different flavor to how you’re doing things and how you’re working together.

Narasaki: The same thing is applicable to us in that, in the current state of industry, the best management is agile management and listens to the knowledge and the insight of others. Otherwise, if you stick to your own legacy kingdom, you’ll be doomed.

If we are sitting here five years from now talking about innovation or technology, what do you think the content of the conversation would be?

Van den Brulle: I think there’s going to be a question, in five years, around one of the big noninsurance companies having entered the insurance space and what role they’ll play. The Amazons, the Facebooks, the Alibabas, Baidu, or whoever you want to choose. What their role will be and how they have entered that space.

Do you see that as inevitable, those big technology companies moving in?

Van den Brulle: I see it as a threat, as they have a lot of access to clients, they have a lot of relevant data, they have capital, and they have the intellectual ability to take things further.

We thought a couple of years ago that insurtechs were going to disrupt the industry. We probably slightly nuanced our opinion now versus those companies who really have superior data access.

Do you combat that threat?

Van den Brulle: We’re trying to be creative and ambitious, as well. ...We want to go more into the preventive space, using that data and knowing when we have to do something in order to avoid business interruption. That is a completely different business model. That is not insurance. That is not a financial product anymore. That is a Software as a Service model with a prevention model. I think we as insurers should sometimes be a little more ambitious in where we can manage risks and where we can offer protection to the economy. BR

AMBestTV

Go to *www.bestreview.com* to watch the video of this interview.

Emerging Leaders Conference

Own Your Career

Stanley Galanski, president and CEO of Navigators: To build a successful company, focus on communication, results, authenticity and people.

by *Best's Review* staff

Stanley Galanski, president and CEO of Navigators told attendees at the Emerging Leaders Conference in Miami that one of his defining moments in leadership was the realization that you learn more from dealing with adversity than you do from good times.

"I've learned more from working for bad bosses than you ever will from working for a good boss," Galanski said. "People say, [complainingly] 'My boss...'. I'm thinking that's a great opportunity. Find out whatever their flaws are and just exploit it. Take advantage of it."

Galanski, who has been CEO of Navigators for 15 years, said he has developed management guidelines that focus on four key concepts: communication, results, authenticity and people, or "CRAP" management.

Following are some excerpts of Galanski's address.

Communication

What do most people say if you talk to your employees or you survey them? What do they want? Information. "We don't know where the company is going. We don't understand the strategy. Nobody talks to us."

It's really a matter of being like a mushroom. They keep us in the dark, and every once in a while they throw some manure over on us.

What are you going to do about that? Well, it's actually a little worse than that because so many times what people really think about communication is like information is currency.

It's this hierarchical thing. That leads to controlling information.

Back in the late '90s when I was running a little microcap company in Chicago called Intercargo Corporation, I'd have weekly staff meetings with my direct reports. I'd share stuff with them and hear from them. You'd hope they'd go back and talk to their teams about it.

What I realized is, some did, some didn't.

The only way I could really deal with it in a company with 150 people, largely in Chicago but [also] in London and Hong Kong, was to do a monthly, all-hands-on-deck team meeting. We're all going to talk about it.

That way, at least I knew they would hear what I thought they needed to hear in a no-nonsense type of way, unfiltered, no political currency involved, just straight at it.

If you can take that attitude of communication into your unit, your department, your company, your team, whatever it is you're running, I think it'll make your team much more effective and cause people to become engaged and have a greater sense of belonging.

> You've got to surround yourself with the best team of people and bring them along with you every step of the way. Maybe the second is more important than the first because we all know that C teams can perform like A teams if they've got the right support around them and you're working hard with them to help them succeed.

Same thing happened in communication. Nobody wants to sit in unproductive meetings. We used to do a quarterly, all-employee telephone call before the era of video conference. At one point in time, my management team of maybe 10 years ago said, "Nobody really likes those meetings. They're torturous. Get rid of them."

OK, so I did. Immediately, all the emails started coming in, "Where was the meeting this quarter?" So, we've done it by video.

Listening to my own managers, they're out of touch with their own people. The bottom line is, the front line wanted to know. They wanted to hear it from my mouth. They want to hear it from your mouth. You can tell the story, and people get it. You're investing in them. You're giving them the time. I strongly think that's important.

Results Orientation

Why is Winston Churchill great? Because he didn't lose World War II. At the end of the day, that's the only reason he's great.

He gave great speeches. If you watch these Churchill movies, they are inspiring and make you feel good, but if he lost, it didn't matter.

If you've read about Churchill, it didn't come easy. There was a lot of resistance to entering the war here in the U.S. Churchill's ability to get FDR and get the U.S. in, ultimately, was the one thing that mattered.

He didn't lose. He was able to win.

When you think about the speeches that were great speeches—London's being bombed, France is falling—it's hard, it's awful. Those speeches were pretty inspirational, but at the end of the day, he wouldn't be a great leader if he lost.

He was a great leader because he won and ultimately, got bounced out.

...

What are those defining moments in leadership that, again, are results-focused? I thought I'd just share a couple with you.

I joined our company in 2001. For those of you who don't know much about us, we were formed in 1974 as a family business, as an MGA [managing general agency]. We created an insurance company in '83, took it public in '86.

The founder ran the company from '74 through 2001, hired me as his successor. I come in as kind of not the CEO and was named CEO Jan. 1, 2003. Two leaders in a 45-year period of time is pretty interesting.

In 2004, we had no analyst calls, even though we had been public since '86. We had no real investor relations effort. I decided to do our first analyst call. On Jan. 21st, 2004, I discovered we had an asbestos problem. We're a small company. At that time, our market capital was probably, I don't know, $200 million. We had a $78 million asbestos problem.

At the end of the day, it was a wonderful opportunity for me as the new CEO, relatively new, still only one year in the job, the way we handled and managed the thing. We identified it. We researched it. We contained it, announced it, all in about four-and-a-half weeks.

It gave the board great confidence in the executive team to see the way we reacted to it. What was possibly the most difficult thing that we could have faced actually was a great moment for me in my career because it gave that board confidence. "Boy, we've got the right person in the job."

…

Willingness to shut down nonperforming businesses, I think, is part of the results orientation. We've had a pretty good track record of entering businesses, excess casualty, directors and officers liability, have a ton of businesses over the years.

When we see things don't hit our KPIs [key performance indicators] we're not shy about shutting down quickly. As one of our retired directors said to me, "You guys shut things down more quickly than anybody I've ever seen." Most companies, they'll debate it. They'll think about it.

If we see the KPIs aren't there—and more importantly, don't have confidence in the team that they're going to be able to execute it—we cut loose. That's just the way it is. I think it's one of the things that really helps us as leaders in focusing on the results.

Authenticity

We've known each other now for about 12 minutes. I think you see that what you see, is what you get, with me. I've always believed that the front line can smell a phony a mile away.

I can remember in the late '90s, living in Chicago. United Airlines couldn't seem to do anything right at the time. I remember being in their red carpet club one day. It was just another flight being delayed by an hour and a half, or canceled.

I said to the person working at the desk at the airline's club, "God, what's wrong with you guys?" She says, "I don't know. They tell us all these things and explanations to give to you, but we just have a really bad management team in this company."

The front line doesn't lie, you know? They could smell a phony a mile away.

The CEO of one of the largest brokerage firms in the U.S.—well, in the world actually—and I were having dinner a couple of months ago. He said, "Stan, there is no way that Navigators should have the share of our market, of our business, that you do.

"You get there because you guys just simply refuse to not have your share. It's the hustle. It's the service."

It's that whole approach. I think those kind of things in their culture, brand, strategy, communication are very, very powerful when you bring them to the market because they're such differentiating factors.

People

I'm leaving you all to head to London tonight. I know it's going to be a great experience. I don't know how many times you guys have flown Virgin Atlantic to London. It's always a great experience because Richard Branson has built one heck of an airline.

We believe we're in a people business. All companies say, "People are our greatest assets," and then they treat them the way Charles Dickens would describe employees in the novel, "Hard Times"—as hands. It's just awful.

We believe in our business, we compete on the basis of the caliber of our intellectual capital. It's the only way we went. If you want to do that, you've got to treat people well, have a strong bond. Treat them as adults. Give them the authority to do their jobs.

Have, obviously, safeguards and the ability to oversee what they're doing, but stay the heck out of the way and let them do their jobs. We believe that's an effective way to work. I think technology enables things.

As productivity pressures continue—by the way, our industry expense ratio is not better today with all the productivity gains we have than it was 10 years ago, or 20 years ago—we're going to continue to face those pressures.

You're going to have to do more with less. You're not going to be able to spend time managing people. You've got to hire people you can trust to do their jobs.

We have some real core values about people in our company. Obviously, I've talked about that. We compete on that basis. We really believe that people do business with people they know, like and trust.

We may not always do what you want, but we're going to listen to your story. Really emphasizing the people side of the business.

We really believe there is no such thing as B-to-B, there is only P-to-P, because even if you're trading on a B-to-B basis, maybe that risk manager ... had a particularly bad day, maybe his boss is a real jerk. You don't know. Maybe he's got a spouse with cancer, or just lost a parent or something. People have a lot of things impacting their lives.

If you can really focus on making that transaction, that customer experience with you, humane, interactive and caring—it's a heck of a competitive advantage. Of course, one of our core values is integrity, professionalism and pride. Always conducting business that way.

Believe in Yourself

First, I'd say, if you don't believe in yourself, you're beat before you start. Our now 79-year-old founder, Terry Deeks, taught me that. I believe, in our company, we've been able to achieve things.

This is not podium talk, this is just true. Whether it's terms we got on a reinsurance deal, or relationships that we've got with brokers or policyholders, or whatever, that really defy logic. The conventional wisdom would say you're not going to get it done. We've always believed in ourselves, and we felt that the team hustled.

We were willing to work harder. It all starts with the mental attitude of not accepting losing, not accepting being second-class as an option. That's true for your team, it's true for your company, it's true for you as an individual.

Somebody said on a prior panel, not to contradict anybody, but this is an industry that you don't get promoted quickly and there is no such thing as a 28-year-old VP. I hope you guys, and the other generation coming on behind you, prove that to be just dead wrong.

I spent my first 14 1/2 years in the underwriting business at Chubb, and at age 36, AIG gave me the chance to be the president of a $500 million insurance company. At age 38, the Intercargo Corporation board of directors gave me the chance to be public company CEO.

Was I ready for either of those jobs? I can assure you, I was not, but I didn't fail.

It starts with that point, number one. Seize the moment when that opportunity presents itself for you.

Keys to Success

You've got to surround yourself with the best team of people and bring them along with you every step of the way. Maybe the second is more important than the first because we all know that C teams can perform like A teams if they've got the right support around them and you're working hard with them to help them succeed. There is a lot of lessons in there.

You need to avoid being consumed with internal problems. Again, I've been very fortunate because running a smaller, entrepreneurial company, we only have about 850 employees worldwide. It's embarrassing because I used to know everybody's name. Now, I walk into London, I'm looking at the receptionist thinking, "Carol? Carly? Who is that?"

The fact is, we're small enough that we communicate and we don't get focused on the internal stuff. We try to stay focused on external realities.

...

Never stop contemplating future sources of growth, future sources of revenue, future sources of earnings. I had a CFO who didn't understand that one time back, I don't know, 12, 13 years ago.

"Oh, look. We've got all these growth businesses. Look how great our construction business is."

Then with the financial crisis, California construction hit a dead stop. Had we not been investing in other things, I don't know where we would have been. There is just never enough good sources of revenue. Things will turn south.

There is a real value to always incubating future sources of growth and revenue. BR

AMBestTV

Go to *bestreview.com* to watch Stanley Galanski's speech.

Expecting to Grow

A study shows more than 600 insurance companies were using exchange-traded funds in their investment portfolios in 2017.

by Meg Green

Exchange-traded funds have grown to over $5 trillion in assets under management since the first U.S. product launched in 1993.

Global investors recognize that ETFs offer cost-efficient investment exposures along with transparency and liquidity. In the webinar "What Insurers Should Know About Four Trends Transforming Asset Management," a panel of experts from iShares and Greenwich Associates discussed four trends that will fuel future ETF growth and how these might transform insurance general accounting portfolios.

Taking part in the webinar were Joshua Penzner, managing director, head of iShares' Fixed Income and Insurance and Andrew McCollum, managing director, Investment Management Greenwich Associates.

Meg Green is a senior associate editor with AMBestTV. She can be reached at *meg.green@ambest.com*.

Following is an excerpt from the webinar.

Could you give us an overview of those four trends that are transforming asset management?

Penzner: I think what's really exciting about the ETF industry, is it's not simply what it means for insurance companies. It's what it's done to investing overall, across institutions, asset owners, asset managers in the wealth space, too.

When I look back, it was only in 2000 that there was $100 billion in ETFs globally. There's now over $5 trillion. That's a pretty powerful generational-defining investment trend. Why is that? Why do we think it could get even up to $12 trillion within the next four to five years?

Really, there are four themes that are defining investing with regard to ETFs and accelerating. The first is that all investment decisions are active. This idea of active versus passive is old news. Any time an investor decides the vehicle, the asset, the asset class, the security that they want to buy or not buy is an active decision.

The second is that the cost of investing is declining. As we think about how do investors build portfolios, they're trying to find the most efficient way to express that view. ETFs are an important part of this trend.

By the way, ETFs can often get a bad rap in terms of the race to zero in fees. That's not what it's about. Fees are declining across the board whether it's for active, index or factor investing. Again, we think that's going to be an important push to ETF adoption.

Joshua Penzner

The third is that the bond ecosystem is changing and evolving. The way bonds are traded ... over-the-counter, voice-to-voice, bond-by-bond is really declining, certainly transforming. It's not simply a matter of brokers, dealers having balance sheets of individual bonds.

It's actually also about the rise of electronic trading platforms, the rise of different ways to trade bond risk through things like an ETF. Finally, the way financial advice is given is being transformed, as well. We heard, for a number of years, about the fiduciary role. In Europe, there's this concept of MiFID II [a revised version of the Markets in Financial Instruments Directive].

Really, the idea is that commission-based advisory investment advice is shifting to fee-based advisory, which makes the investment advice really more about, "How am I building portfolios? Am I building them efficiently? Am I building them at scale?"

ETFs are a very important piece of that. Again, this idea of investing is an active decision. That costs are declining, that the bond market is changing, and that the way advice is given is evolving, is really pushing ETF adoption, not just for insurance companies but across the investing landscape.

What do these macro trends mean for institutional investors? Can you tell us about the Greenwich study?

McCollum: These changes are effectively changing the way that institutions are constructing their portfolios. We're seeing shifts in asset allocations. We're seeing changes in the products that are being used. Certainly, we're talking about ETFs, we're seeing changes in the vehicles that institutions are using.

In an effort to track some of these trends and get a better understanding of them, Greenwich conducted a broad-scale global study. We conducted interviews with over 450 institutional investors. They were pension funds, they were corporate and public pensions, they were endowments, foundations in Europe.

This was a global study. We spoke with some discretionary wealth advisers. Here in the U.S., we spoke with IRAs and with quite a few insurance providers as well. These were very large institutions. About 40% of them had more than $10 billion in total assets under management.

The goal of all of these interviews was to understand the trends in ETF use and how they were thinking about using ETFs in their portfolios. That's the study that we conducted.

What are the biggest drivers of growth for ETFs in the institutional arena?

McCollum: Building on some of the things that Josh was talking about, in our research, there were two main drivers of growth in ETF utilization this year. The first driver, I would describe as environmental turbulence. If you think back to 2018, there were a lot of macro issues that were impacting investment decisions and investment thinking.

We had three Fed rate increases. That caused a lot of uncertainty about how quickly the Fed would tighten rates, which lead to some thinking around, "Is this the end of the business cycle?" We're arguably in the longest bull market in the history of the markets or, at least, recently.

People are a little concerned about are we coming to the end, especially in the fourth quarter in December when there was a lot of volatility. There were some volatility spikes particularly in December of last year. Then there were some other macro issues related to trade—the China-U.S. trade issues, NAFTA.

Then, of course, if you look across the pond, there were concerns about what was happening in the EU with fragmentation and Brexit. All of those issues caused investors to think closely about risk management. As they were readjusting their portfolios to address the risks that they saw, they were oftentimes applying ETFs to address those issues.

Andrew McCollum

That was the first driver of ETF adoption this year, the market turbulence, if you will.

The second big driver was, what I call the index revolution. This is not new news. It's been going on for almost a decade now. We've seen a lot of institutional investors shifting from active products that are underperforming, toward passive or index products. That's not new news.

What was happening this year, however, was that because it was a volatile environment, an environment where active investing is supposed to outperform benchmarks, there was some disappointment in the performance of those products.

In our research, what we noticed was that the vast majority, I believe it was 78% of investors, consider ETFs to be the preferred index wrapper. As products move from active to indexing, it was a big boon for ETF growth this past year. Those were the two big drivers of growth that we found in our research.

Penzner: What's particularly interesting about both the study itself and the results that you described is one, these are large institutions that are describing their focus on and interest in use of ETFs. In the insurance space, the first movers, interestingly enough, had been more small and midsize insurance.

What this tells me and the way I hear you talk about the result is that the room for growth is pretty impressive. If we're hearing this now from the larger institutions—asset managers, asset owners, pensions, foundations, endowment, insurance companies—the momentum is shifting. The buyer is shifting, evolving or growing.

When you talk about these two trends, we talk about global macro issues every year, as we're talking about it in the beginning, this is a defining investment trend. Those are not slowing down.

McCollum: If you compare the allocations of insurers to some of the other channels that we interviewed as part of this research, you will see that there's just a ton of opportunity from a growth standpoint for insurers. They are still well below the allocations that you see in pension funds, or certainly, asset managers.

Looking back over the last three to five years, have you seen the adoption change?

McCollum: This is actually the ninth time that Greenwich has conducted this study. We have quite a bit of trend, and it's been really interesting to watch the adoption of ETFs in the institutional market.

When we started nine years ago, and we asked institutions whether or how they were using ETFs in their portfolio, they would typically give us what I would describe as a tactical use case. They would talk about holding ETFs maybe to get short-term exposure, maybe during a manager transition.

The holding period was typically quite short, but as institutions—and we've really seen this over the past three to five years—have started to get experienced with ETFs in their portfolios, they come to realize that they're actually quite versatile tools and can be used for more than these short-term tactical portfolio functions.

They can be used for much more strategic functions in their portfolios, maybe to get international exposure, even as a core holding in your equity or your fixed income portfolios. As a result, we see the holding periods expanding, we see the use and the allocations increasing.

That's really where a lot of the growth has come, not only new users coming online as they see their peers doing it but also current users broadening their use and using ETFs for a much broader set of portfolio functions.

Penzner: It's also [that] the reasons for usage, and the reasons for not using, are declining, too.

If you were to look years ago, it's "I don't have them in guidelines," or "I haven't gotten them approved by my investment committee," or "They haven't gone through the risk process." Even those numbers have come down.

McCollum: You don't hear that much anymore. When we started maybe 30%, 40% of people would say things like this. These days it's few and far between.

Penzner: It's interesting, and you said that holding period of being greater than a year is a pretty dramatic statement from years past where people say, "I would never consider an index product or an EFT product for my portfolio, and I certainly wouldn't earn it for a long time."

McCollum: Very different now.

Turning to the insurance industry, what are the biggest drivers of growth in that space?

Penzner: This is what gets me real excited, the opportunity, and Andrew talked about it, the runway for growth. It's great for the industry overall, the insurance industry, the opportunity is significant. If you looked at the data, we're still waiting for the 2018 year-end information to come in, but the three-year compound annual growth rate for ETF and option insureds was 25%.

That's an incredible number. When you break it apart, 16% in equity, which is a pretty impressive adoption rate and, frankly, growth rate for any product in the asset management industry. It was dwarfed by the fixed income adoption rate, which was roughly 72%. Again, this is 2017 year-end data.

We have no reason to suspect that adoption is declining for sure in 2018. I think that we can hope for 72% growth in fixed income over the long term. That would be fantastic. I think, though, we have to acknowledge that things may slow a little bit. That said, you often get a lot of skepticism. Are insurers really embracing ETFs? Let's set aside the growth rates. Let's look at the sheer numbers of insurance companies using it. Over 600 insurance companies, as reported at the end of 2017 were using ETFs.

That's a pretty amazing number, particularly for an industry that tends to be slower-moving and more conservative and thoughtful and has a lot of constituents and stakeholders that they have to make sure are on board before they adopt a new product for their portfolio-management process. I think that the story of ETF growth for insurance companies is still to be written.

We're still early in that. Why are they using it? Andrew alluded to this. It's not about the ticker. It's not about the actual ETF. It's, what role can it play in the portfolio? What's the use case? Andrew talked about tactical asset allocation.

That's such an important use case for insurance companies to be able to move into and out of a market on opportunity whether it's after a market shock or a market surprise like Brexit or a presidential election. Whether it's a way to get exposure over time because you think that we want to build up a core allocation and more niche asset class.

Then there's this concept of liquidity, which is to say that I get so much cash as an insurance company. Sometimes it comes predictably. Sometimes it's unpredictable.

Usually the outflows are unpredictable. Having to navigate that cash and that liquidity, ETFs can play a role for that. Finally, I think about, from a strategic perspective.

This is where the industry has so much opportunity. Looking ahead is that the ability to use an ETF to build a core position, whether it's equity or fixed income, to be operationally efficient, is pretty unique.

I think we'll start to see more and more of that. You're starting to see that in the results from the survey.

Again, this idea of thinking about it. It's not about the ticker. It's not about the product. It's about the use case that is really resonating with insurance. BR

AMBestTV

Go to *www.bestreview.com* to watch the webinar.

What AM Best Says

Looking Beyond Technology

AM Best's Gillard discusses AM Best's new innovation criteria.

by Kate Smith

James Gillard, senior managing director, criteria, research and analytics, sat down with AMBest TV to discuss AM Best's criteria document, "Scoring and Assessing Innovation." The criteria, which has been released for public comment, examines the elements that go into an insurer's innovation process, measures innovation output, and looks at the impact of innovation efforts on the organization.

Following is an edited transcript of the interview.

AM Best has released a new criteria titled, "Scoring and Assessing Innovation." Can you walk us through the new criteria?

We released our new criteria, "Scoring and Assessing Innovation," for public comment. The criteria is out [until May 13] for public comment, where we invite industry participants to comment and give us their feedback on their views on our criteria. I would just say, innovation is currently implicitly included in our criteria. However, given the rapid pace of innovation in the industry, we thought it important to come out with a more

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AMBestTV

Go to *www.bestreview.com* to watch the interview with James Gillard.

formal, explicit assessment of innovation and how we view the innovativeness of companies. Any time you talk about innovation it's important to start with a definition. We're very clear that we don't think innovation just equals high-tech. Technology plays an important role. However, we certainly view innovation as a process that transforms ideas into new processes, products and business models. Innovation, while it includes technology, is certainly not limited to just technology.

The criteria takes an input-output approach. We really want to evaluate a company's innovation process. That creates an input score. Then, look at the results of their innovation efforts. That creates the output score.

The process is evaluated, looking at four subcomponents. We look at the leadership of the company. How does it drive innovativeness? The culture. We hear about corporate culture playing a huge role in a company's innovativeness. If you don't have the right culture to accept new ideas, you're going to very much struggle being innovative.

Third, we look at their ability to strategically allocate resources toward innovation. That doesn't mean you need to have a chief innovation officer or dedicated resources solely focused on being innovative, coming up with the next big thing. It does mean you need to have people working and thinking about, "What's next? What do we do going forward?"

Last, we look at organizational process and your structure around innovation.

On the output side, what we're looking for is more concrete. We want companies to be able to measure their innovation. We want to see the tangible results that innovation efforts have led to.

Lastly, we're also looking at the level of transformation. How far has innovation taken you to move your company forward? That walks through the criteria, in general.

Why is AM Best releasing a criteria now?

The pace of innovation in the industry has really increased. We expect that trend to continue. We see significant demographic changes, climate-related trends, and technological advancements, things like internet of things, machine learning, blockchain. These things all have the potential to be transformative for the industry. We think now is a good time to get out and start assessing the innovation in the industry because companies that don't embrace this change, adjust to it, ultimately will be disadvantaged, which will lead to an erosion in their financial strength, which is, obviously, what we care about most.

Today, while that impact on their profile and the company's financial strength may be small, we expect the weight that innovation will carry to increase over time. That's why we want to start now with a formalized assessment. It creates a starting point for us. Then, we can continue to improve our assessment of innovation over time.

In addition, it really does highlight the importance of innovation for the industry. AM Best's take is that this trend is going to continue and that companies that don't really get there are going to be left behind.

Companies have to understand, the whole industry has to understand, where innovation can, and probably will, take the industry in the coming years.

Do you expect this to have a big impact on ratings once it's live?

We don't expect this criteria to have an impact on ratings once it's released live as an active criteria. As I mentioned, right now, it's out for comment, but even when it's released live, we don't expect there to be a significant change.

Innovation is already included. Our management meetings include innovation on the agenda. We talk through companies, what they're doing, what changes they're doing. How are they adjusting to market conditions?

However, now we're coming out with a creation of a formal assessment. We do not think the creation of this formal assessment changes the weight of innovation in the criteria. It will still play a similar role to what it plays now. However, our expectation is that this weight will rise over time.

As the industry changes, as this becomes more transformative, the weight that innovation will play in your financial strength assessment will increase.

Innovation is a leading indicator of financial strength. It starts with, if you fail to innovate, you're going to start lagging behind your market position. Market position is an important factor in the business profile component of our methodology. You start to see a deterioration in your business profile.

As your business profile deteriorates, your performance is going to start to lag. You're not going to get the best business. You're not going to be on the cutting edge. You're not going to be where you need to be. You're going to start to see deterioration in your operating performance.

Ultimately, your operating performance lags. You're going to see it in your balance sheet strength. You're going to lose capital. That ultimately will impact your financial strength over time. BR

The complete draft criteria procedure is available at ***www.ambest.com/ratings/methodology.asp***.

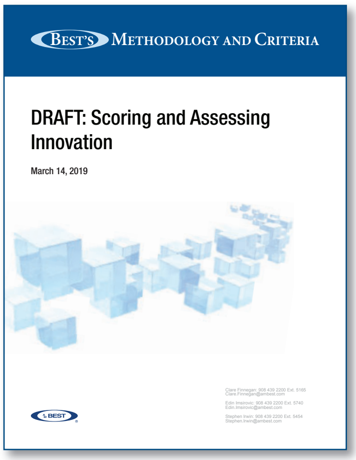
AM Best Assesses Innovation in Draft Criteria

Methodology and Criteria (Excerpt): Scoring and Assessing Innovation

AM Best is requesting comments from market participants in the insurance industry and other interested parties on the draft of a new criteria procedure, "Scoring and Assessing Innovation."

AM Best defines innovation as a multistage process whereby an organization transforms ideas into new or significantly improved products, processes, services or business models that have a measurable positive impact over time and enable the organization to remain relevant and successful. These products, processes, services or business models can be created organically or adopted from external sources.

Historically, AM Best has captured innovation indirectly through the various building blocks of its rating process. AM Best's evaluation of a company's innovation level, outlined in the draft criteria procedure, will be based on two elements: (1) innovation input—the components of a company's innovation process, and (2) innovation outputs—the impact of the company's innovation efforts. The resulting innovation score is the sum of these two evaluations. Within its business profile building block, AM Best explicitly will consider whether a company's innovation efforts, or lack thereof, have had a demonstrable positive or negative impact on its long-term financial strength. AM Best expects that all rated companies eventually will be scored and assigned a published innovation assessment.


BEST'S METHODOLOGY AND CRITERIA

DRAFT: Scoring and Assessing Innovation

March 14, 2019

Innovation always has been important for the success of an insurance company, but with the increased pace of change in society, climate and technology, it is becoming increasingly critical to the long-term success of all insurers. While AM Best believes that the pace of innovation in the insurance industry is accelerating and that an insurer's ability to innovate is becoming an increasingly important indicator of a company's long-term financial strength, AM Best does not expect any changes to ratings as a result of the release of this criteria procedure.

This draft criteria procedure is available at *www.ambest.com/ratings/methodology.asp*.

Written comments should be submitted by email to *methodology.commentary@ambest.com* no later than May 13, 2019. When submitting comments to the methodology in-box, commenters have the option of requesting anonymity, but not confidentiality. All comments received through the methodology in-box that do not request anonymous treatment generally will be published in their entirety, with attribution to the author/sender at the time of implementation of the criteria procedure.

The following criteria procedure should be read in conjunction with Best's Credit Rating Methodology (BCRM) and all other related BCRM-associated criteria procedures. The BCRM provides a comprehensive explanation of AM Best Rating Services' rating process.

The Importance of Innovation

Innovation is becoming increasingly critical to the long-term success of all insurers. With innovation, companies can develop sustainable competitive advantages and better respond to external challenges such as evolving consumer preferences, growing business complexity, shifting market dynamics, and ever-expanding technological advancements. Companies need innovation to outpace competitors, fend off potential external disruptors, and promote organizational longevity.

Insurers agree with AM Best that innovation is critical to their future success and that they must innovate to attract and retain customers. By improving efficiencies through innovation, insurers can gain a competitive advantage. Technological developments—such as advancements driven by machine learning, the internet of things (IoT), and blockchain—tend to be the innovations that receive the most fanfare. However, while technology plays a non-trivial role in providing tools for innovation, innovation is not all about technology. Many insurers have historically found nimble ways to adapt to an ever-changing market environment without having to become sophisticated technology players. To keep up with current innovation developments, insurance innovators rely on diverse sources, including employees, customers, and consultants and, when faced with challenges requiring innovations outside of their core competencies, are willing to make investments and form partnerships to get up to speed.

In the insurance industry, the importance of innovation is not segment-specific. Given the accelerating pace of innovation and magnitude of change, insurance companies that fail to innovate may find it difficult to sustain long-term success/profitability and may ultimately be subject to anti-selection and loss of relevance. Those insurers that successfully incorporate innovation will likely strengthen their organizations, increase their customer base, and improve efficiency, which will support their financial strength.

Historically, AM Best has captured innovation indirectly through the various building blocks of its rating process. AM Best now believes that the pace of innovation in the insurance industry is accelerating and that an insurer's ability to innovate is becoming increasingly critical to its long-term financial strength. From a rating perspective AM Best's innovation initiative is two-pronged: (1) all rated companies will be scored and then assigned a published innovation assessment; and (2) within its business profile building block AM Best will explicitly consider whether a company's innovation efforts, or lack thereof, have had a demonstrable impact (positive or negative) on its long-term financial strength.

Defining Innovation

AM Best defines innovation as a multistage process whereby an organization transforms ideas into new or significantly improved products, processes, services, or business models that have a measurable positive impact over time and enable the organization to remain relevant and successful. These products, processes, services, or business models can be created organically or adopted from external sources.

There are several key aspects to AM Best's definition of innovation. First, innovation can take many forms—it is not limited to a particular type of innovation or technological development. The definition also allows for flexibility regarding the source of innovation; for some organizations, innovation through adoption may prove to be the most appropriate path, as there may be inherent barriers to innovation within the organization.

Second, AM Best expects the output of the innovation process—those new or significantly improved products, process, services, or business models—to have a measurable impact. Some level of failure is an expected part of any innovation program, but companies receiving the highest innovation scores will have a demonstrable success in innovating. Without productive results, the resources consumed by the innovation process will be a financial drain rather than an aid. BR

The complete draft criteria procedure is available at *www.ambest.com/ratings/methodology.asp.*

Best's Rankings

U.S. Property/Casualty – 2018 Financial Results

Top 25 Writers

Ranked by net premiums written as of Dec. 31, 2018.
($ Thousands)

Company or Group Name	Net Premiums Written	Admitted Assets	Policyholder Surplus	% CHANGE DPW	% CHANGE NPW	% CHANGE ADMT ASTS	% CHANGE PHS	DPW/ PHS	GPW/ PHS	NPW/ PHS	LIA/ PHS	NET LEV	NET INC/ NPE	COMB A/DIV 12 MOS 2018	COMB A/DIV 12 MOS 2017
State Farm Group	$65,457,192	$191,522,769	$100,778,280	1.5	1.3	-0.4	3.9	0.7	0.7	0.6	0.9	1.5	12.3	97.3	109.9
Berkshire Hathaway Ins	50,249,255	320,224,297	161,777,529	13.0	8.3	-2.6	-6.2	0.3	0.6	0.3	1.0	1.3	31.9	95.8	102.2
Progressive Ins Group	32,611,691	42,499,672	11,703,184	21.1	20.2	19.6	21.4	2.9	5.8	2.8	2.6	5.4	9.9	90.3	93.2
Allstate Ins Group	32,289,792	52,265,907	17,710,051	5.6	5.7	1.8	-3.3	1.9	3.4	1.8	2.0	3.8	9.2	94.1	94.9
Liberty Mutual Ins Cos	31,830,969	83,054,702	20,129,818	2.3	11.2	6.1	12.0	1.7	4.3	1.6	3.1	4.7	13.7	99.4	109.7
Travelers Group	25,790,403	79,900,973	20,207,201	5.5	5.4	2.8	1.5	1.3	3.4	1.3	3.0	4.3	14.6	96.2	97.2
USAA Group	21,491,132	48,723,617	27,606,110	9.1	9.6	5.5	4.1	0.8	1.3	0.8	0.8	1.6	3.3	103.3	104.9
Chubb INA Group	19,461,855	71,630,815	18,581,035	3.8	78.1	12.0	5.3	1.2	3.5	1.0	2.9	3.9	30.6	85.5	94.7
Nationwide Group	18,133,400	51,361,659	14,478,180	-4.0	-3.9	-2.9	-1.8	1.3	2.9	1.3	2.5	3.8	-0.6	108.4	113.3
Amer Intl Group	14,593,407	72,202,815	17,815,953	-1.2	1.3	-11.9	-19.0	0.8	2.4	0.8	3.1	3.9	-7.8	123.2	126.6
Farmers Ins Group	14,031,427	30,425,996	5,696,358	2.3	-1.6	4.1	2.3	3.6	9.4	2.5	4.3	6.8	3.3	101.2	103.5
Hartford Ins Group	10,411,340	39,667,059	10,248,101	-0.7	-1.0	-2.3	-10.6	1.1	2.6	1.0	2.9	3.9	19.0	100.9	102.9
Amer Family/Main Street America Grp	10,290,013	20,986,902	6,946,230	6.4	7.5	-0.3	-9.9	1.4	2.4	1.5	2.0	3.5	4.6	106.9	107.5
Auto-Owners Ins Group	7,610,193	21,348,767	11,342,791	10.7	10.9	5.2	3.7	0.7	0.7	0.7	0.9	1.6	10.0	95.2	93.3
Swiss Reins Group	7,281,820	20,606,245	5,017,260	8.8	225.3	1.4	3.6	0.4	1.5	1.5	3.1	4.6	-8.1	102.1	107.9
Erie Ins Group	7,091,499	18,275,898	8,602,605	7.0	7.0	2.4	-2.3	0.8	1.1	0.8	1.1	1.9	5.8	103.1	96.2
Fairfax Financial (USA) Group	6,951,053	22,507,831	6,670,070	11.1	27.1	3.3	-3.9	0.9	2.0	1.0	2.4	3.4	6.1	97.7	101.7
Munich-Amer Hldg Corp Cos	6,807,450	22,080,630	4,988,835	2.2	24.3	-1.2	-4.9	0.5	1.9	1.4	3.4	4.8	-5.4	108.0	111.6
Tokio Marine US PC Group	6,651,883	27,070,742	8,309,979	7.7	2.2	6.3	6.9	0.9	1.1	0.8	2.3	3.1	15.8	97.4	97.4
CNA Ins Cos	6,568,262	43,598,147	10,411,342	2.3	2.8	-1.7	-4.2	1.0	1.4	0.6	3.2	3.8	25.7	110.2	109.7
W. R. Berkley Ins Group	5,722,538	20,179,951	5,590,135	3.3	2.3	2.0	2.0	1.1	2.2	1.0	2.6	3.6	20.5	93.6	93.9
Everest Re US Group	5,052,259	12,639,726	3,650,594	6.5	190.2	22.7	7.6	0.5	2.3	1.4	2.5	3.9	-26.2	128.2	146.4
Cincinnati Ins Cos	5,033,904	13,656,146	4,919,104	3.4	3.9	2.1	-3.4	1.0	1.2	1.0	1.8	2.8	14.5	96.0	97.2
The Hanover Ins Grp Prop & Cas Cos	4,395,814	9,022,804	2,172,516	6.3	6.9	4.6	4.6	2.2	3.7	2.0	3.2	5.2	9.1	96.2	98.5
Great Amer P & C Ins Grp	4,346,751	12,596,035	2,867,988	1.4	2.8	4.9	5.1	2.1	3.3	1.5	3.4	4.9	13.3	91.8	93.0
Top 25 Writers	**$420,155,304**	**$1,348,050,105**	**$508,221,251**	**5.5**	**10.5**	**0.9**	**-1.3**	**0.8**	**1.7**	**0.8**	**1.7**	**2.5**	**12.2**	**98.8**	**103.8**
Top 100 Writers	**$549,563,977**	**$1,768,227,300**	**$653,050,264**	**5.5**	**11.2**	**1.6**	**-1.2**	**0.9**	**1.7**	**0.8**	**1.7**	**2.5**	**11.3**	**99.2**	**103.7**
Total U.S. PC Industry	**$611,014,521**	**$2,008,511,771**	**$759,844,329**	**5.6**	**10.9**	**1.5**	**-0.8**	**0.9**	**1.6**	**0.8**	**1.6**	**2.4**	**11.1**	**99.2**	**104.0**

Source: AM Best

U.S. Life/Health – 2018 Financial Results

Top 25 U.S. Life/Health Groups

Ranked by admitted assets as of Dec. 31, 2018.
($ Thousands)

Company or Group Name	Admitted Assets	12-Month % Chg	Separate Account Assets	Net Premiums Written	12-Month % Chg	After-Tax Net Oper Gain	Realized Gains/ Losses	C&S + AVR	12-Month % Chg	Adj C&S/ Adj Liab (%)
Prudential of America Group	$577,911,428	-3.0	$389,519,118	$42,707,423	18.8	$1,519,833	-$723,319	$20,052,385	-3.7	11.9
Metropolitan Life & Affiliated Cos	409,620,949	-0.9	129,545,235	35,111,215	76.1	6,139,228	-308,161	20,500,654	-8.2	7.9
New York Life Group	324,732,098	1.3	48,919,207	29,333,258	3.3	1,004,793	-82,559	24,814,008	2.5	9.9
TIAA Group*	316,052,536	2.9	43,305,036	15,723,018	-2.5	2,094,208	-655,787	43,438,317	4.0	18.9
AIG Life & Retirement Group	283,717,128	-2.2	86,686,077	-8,484,588	-99.9	1,036,330	-365,286	11,964,903	-17.6	6.5
Northwestern Mutual Group	272,266,151	2.7	29,716,711	17,822,949	0.7	762,233	23,589	26,731,083	6.1	12.4
Lincoln Finl Group	256,546,059	-6.4	136,310,906	12,068,138	-44.5	803,106	327,564	9,509,022	-10.5	8.6
Massachusetts Mutual Life Group	254,871,959	1.2	70,430,668	23,237,240	30.9	327,513	-1,043,531	19,023,168	0.0	11.5
John Hancock Life Insurance Group	247,572,469	-9.0	139,978,297	7,557,422	-62.3	1,115,746	338,007	11,204,236	6.1	11.6
Jackson Natl Group	236,988,672	-1.9	163,301,375	23,159,956	20.7	947,619	991,723	5,581,045	29.7	8.2
Aegon USA Group	201,197,728	-7.5	121,149,400	20,582,503	396.3	132,791	-817,347	10,326,518	-5.9	14.8
AXA Equitable Group	194,728,959	-2.4	128,101,795	13,289,624	-1.0	2,774,048	244,345	8,261,381	-8.8	14.1
Principal Finl Group Inc.	185,009,820	-2.3	108,163,457	9,702,903	16.3	1,082,161	-68,100	6,374,555	6.5	9.0
Brighthouse Ins Group	179,295,297	-7.5	108,674,850	6,722,665	-43.0	967,754	-1,922,740	7,349,193	11.0	11.4
Nationwide Mutual Life Group	170,430,331	-0.5	100,120,294	17,353,667	1.1	1,095,672	-143,243	7,423,629	14.8	11.8
Allianz Life Ins Group	145,153,116	2.7	25,512,608	12,226,928	19.3	1,299,798	-482,330	7,343,497	9.0	6.5
Voya Finl Group	138,557,098	-2.3	71,959,192	15,095,636	7.3	447,057	-9,850	5,116,731	7.1	8.3
Pacific Life Group	135,579,228	0.3	53,708,584	12,799,083	30.8	947,163	-59,248	10,656,451	7.4	15.0
Talcott Resolution Group	117,913,970	-18.5	99,086,231	-6,961,928	-99.9	300,845	-245,928	3,949,846	1.6	26.5
Ameriprise Finl Group	104,154,839	-8.4	73,545,792	5,609,354	2.8	1,682,010	-70,968	3,381,537	37.9	12.4
Sammons Enterprises Group	99,242,227	2.7	6,783,495	7,048,152	-3.3	735,344	-100,690	6,441,034	3.9	7.5
Thrivent Finl for Lutherans Group	94,070,577	-0.6	29,850,298	5,116,806	-0.7	1,063,454	146,468	10,516,833	10.6	19.6
Athene Life Group	83,776,997	16.2	5,041,684	5,839,746	261.6	183,328	-90,727	2,450,963	12.2	3.2
State Farm Life Group	78,026,036	2.7	1,271,815	5,363,972	2.0	670,627	35,607	13,302,857	3.9	21.0
Guardian Life Group	75,541,505	-1.4	9,027,343	10,674,545	22.8	652,684	-198,514	8,112,348	6.9	13.9
Top 25	**$5,182,957,179**	**-2.1**	**$2,179,709,467**	**$338,699,687**	**0.6**	**$29,785,344**	**-$5,281,026**	**$303,826,196**	**1.8**	**11.2**
Top 100	**$6,828,117,866**	**-2.5**	**$2,488,981,819**	**$579,016,941**	**0.6**	**$42,831,388**	**-$4,671,555**	**$450,622,229**	**1.1**	**11.6**
Total U.S. Life/Health Industry	**$6,959,110,772**	**-2.4**	**$2,491,652,736**	**$606,150,700**	**1.0**	**$43,892,493**	**-$4,656,185**	**$471,587,852**	**1.0**	**11.8**

* TIAA's assets are significantly understated. Most of its separate account assets are in its affiliate, CREF.
Source: AM Best

Best's Credit Rating Actions

This edition lists all Credit Rating actions that occurred between March 1 and March 31, 2019. For the Credit Rating of any company rated by AM Best and basic company information, visit the AM Best website at *www.ambest.com/ratings/access.html* or download the ratings app at *www.ambest.com/sales/ambmobileapp*.

Operating Companies

Rating Action	Business Type	Company Name/ *Ultimate Parent*	AMB#	Current FSR ICR	Current Outlook/ Implications	Previous FSR ICR	Previous Outlook/ Implications	Domicile
U.S., CANADA AND BERMUDA LIFE/HEALTH								
–	L	Atlanta Life Insurance Company *Alonzo F. & Norris B. Herndon Foundation*	006130	C+ b-	Negative Negative	C++ b+	Stable Negative	Georgia
⊕	H	Chesapeake Life Insurance Company *HealthMarkets, Inc.*	006215	A- a-	Stable Stable	B++ bbb+	Stable Stable	Oklahoma
⇅	L	Crown Global Insurance Company of Amer *Crown Global Ins Group LLC*	061740	B++ bbb+	Positive Positive	B++ bbb+	Stable Stable	Delaware
⇅	L	Crown Global Life Ins (Bermuda) Limited *Crown Global Ins Group LLC*	073497	B++ bbb+	Positive Positive	B++ bbb+	Stable Stable	Bermuda
⇅	L	Crown Global Life Insurance Limited *Crown Global Ins Group LLC*	072100	B++ bbb+	Positive Positive	B++ bbb+	Stable Stable	Bermuda
⚑	H	Dental Care Plus, Inc. *DCP Holding Company*	064698	B+ u bbb- u	Developing Developing	B+ bbb-	Positive Positive	Ohio
⇥	L	Employers Reassurance Corporation *General Electric Company*	006976	NR nr		B+ bbb-	Stable Stable	Kansas
⇅	H	Memorial Hermann Health Insurance Co *Memorial Hermann Health System*	060368	B+ bbb-	Positive Positive	B+ bbb-	Stable Stable	Texas
⇅	H	Memorial Hermann Health Plan, Inc. *Memorial Hermann Health System*	061814	B+ bbb-	Positive Positive	B+ bbb-	Stable Stable	Texas
⇥	L	Union Fidelity Life Insurance Company *General Electric Company*	006297	NR nr		B+ bbb-	Stable Stable	Kansas
U.S., CANADA AND BERMUDA PROPERTY/CASUALTY								
⇥	P	American Country Insurance Company *Atlas Financial Holdings, Inc.*	002735	NR nr		C ccc	Negative Negative	Illinois
⇥	P	American Service Insurance Company, Inc. *Atlas Financial Holdings, Inc.*	001777	NR nr		C ccc	Negative Negative	Illinois
New	P	AmFed Advantage Insurance Company *AmFed Holding Company LLC*	023415	A- a-	Stable Stable			Mississippi
☑	P	Aspen American Insurance Company *Highlands Holdings, Ltd.*	014149	A a	Stable Stable	A u a u	Developing Developing	Texas
☑	P	Aspen Bermuda Limited *Highlands Holdings, Ltd.*	083210	A a	Stable Stable	A u a u	Developing Developing	Bermuda
☑	P	Aspen Specialty Insurance Company *Highlands Holdings, Ltd.*	012630	A a	Stable Stable	A u a u	Developing Developing	North Dakota
⊕	P	Atlantic Specialty Insurance Company *Intact Financial Corporation*	012666	A+ aa-	Stable Stable	A a+	Stable Stable	New York
⇅	P	Atlantic States Insurance Company *Donegal Mutual Insurance Company*	002223	A a	Negative Negative	A a	Stable Stable	Pennsylvania
⚑	P	Canopius US Insurance, Inc. *Fidentia Fortuna Holdings, Ltd.*	013830	A- u a- u	Negative Negative	A- a-	Stable Stable	Delaware
⊕	P	Castle Key Indemnity Company *The Allstate Corporation*	012128	B+ bbb-	Stable Stable	B- bb-	Stable Stable	Illinois
⊕	P	Castle Key Insurance Company *The Allstate Corporation*	010648	B+ bbb-	Stable Stable	B- bb-	Stable Stable	Illinois
⇅	P	Countryway Insurance Company *Virginia Farm Bureau Mutual Insurance Co*	003206	A- a-	Positive Positive	A- a-	Stable Stable	New York
☑	P	DaVinci Reinsurance Ltd *RenaissanceRe Holdings Ltd*	084749	A a+	Stable Stable	A u a+ u	Developing Developing	Bermuda
⇅	P	Donegal Mutual Insurance Company *Donegal Mutual Insurance Company*	000318	A a	Negative Negative	A a	Stable Stable	Pennsylvania
⊕	P	Encompass Floridian Indemnity Company *The Allstate Corporation*	012711	B+ bbb-	Stable Stable	B- bb-	Stable Stable	Illinois
⊕	P	Encompass Floridian Insurance Company *The Allstate Corporation*	012710	B+ bbb-	Stable Stable	B- bb-	Stable Stable	Illinois
⇥	P	Falls Lake General Insurance Company *James River Group Holdings, Ltd.*	014312	NR nr		A a	Stable Stable	Ohio
–	P	Farm Bureau Mutual Insurance Co of ID *Farm Bureau Mutual Insurance Co of ID*	000355	A- a-	Negative Negative	A a	Negative Negative	Idaho

Rating Action: (⊕) Upgrade; (–) Downgrade; (New) Initial Rating; (⚑) Under Review; (⇅) Change in Outlook; (⇥) Rating Withdrawal; (☑) Rating Affirmation.
Outlook: Positive, Negative, Stable. **Implications:** Positive, Negative, Developing. **Business Type:** **P** = Property/Casualty (Non-Life); **L** = Life; **H** = Health; **T** = Title; **C** = Composite.

Rating Action	Business Type	Company Name/ *Ultimate Parent*	AMB#	Current FSR ICR	Current Outlook/ Implications	Previous FSR ICR	Previous Outlook/ Implications	Domicile
U.S., CANADA AND BERMUDA PROPERTY/CASUALTY (CONTINUED)								
⇥	P	Farmland Mutual Insurance Company	000366	NR nr		A+ aa-	Negative Negative	Iowa
⇥	P	Gateway Insurance Company *Atlas Financial Holdings, Inc.*	010621	NR nr		C ccc	Negative Negative	Missouri
⇅	P	Germantown Insurance Company *Phila Contributionship Mutual Holding Co*	000413	A a	Negative Negative	A a	Stable Stable	Pennsylvania
⇥	P	Global Liberty Insurance Co of NY* *Atlas Financial Holdings, Inc.*	012498	NR nr		C+ b-	Negative Negative	New York
⊕	P	Homeland Insurance Company of Delaware *Intact Financial Corporation*	014398	A+ aa-	Stable Stable	A a+	Stable Stable	Delaware
⊕	P	Homeland Insurance Company of New York *Intact Financial Corporation*	010604	A+ aa-	Stable Stable	A a+	Stable Stable	New York
⇅	P	Le Mars Insurance Company *Donegal Mutual Insurance Company*	000556	A a	Negative Negative	A a	Stable Stable	Iowa
⊕	P	Louisiana Farm Bureau Mutual Ins Co	000561	A a	Stable Stable	A- a-	Positive Positive	Louisiana
⇅	P	Michigan Insurance Company *Donegal Mutual Insurance Company*	012137	A a	Negative Negative	A a	Stable Stable	Michigan
New	P	Midwest Insurance Company *Midwest Financial Holdings, LLC*	012262	A- a-	Stable Stable	NR nr		Illinois
⇅	P	Mountain States Commercial Insurance Co *Donegal Mutual Insurance Company*	022367	A a	Negative Negative	A a	Stable Stable	New Mexico
⇅	P	Mountain States Indemnity Company *Donegal Mutual Insurance Company*	011694	A a	Negative Negative	A a	Stable Stable	New Mexico
⊕	P	OBI America Insurance Company *Intact Financial Corporation*	022388	A+ aa-	Stable Stable	A a+	Stable Stable	Pennsylvania
⊕	P	OBI National Insurance Company *Intact Financial Corporation*	014397	A+ aa-	Stable Stable	A a+	Stable Stable	Pennsylvania
⇅	P	Peninsula Indemnity Company *Donegal Mutual Insurance Company*	011039	A a	Negative Negative	A a	Stable Stable	Maryland
⇅	P	Peninsula Insurance Company *Donegal Mutual Insurance Company*	004205	A a	Negative Negative	A a	Stable Stable	Maryland
⇅	P	Philadelphia Contributionship *Phila Contributionship Mutual Holding Co*	003112	A a	Negative Negative	A a	Stable Stable	Pennsylvania
⇅	P	Philadelphia Contributionship Ins Co *Phila Contributionship Mutual Holding Co*	003111	A a	Negative Negative	A a	Stable Stable	Pennsylvania
⊕	P	Queen City Assurance Inc *Kroger Co*	075149	A a+	Stable Stable	A a	Stable Stable	Vermont
☑	P	Renaissance Reinsurance Ltd *RenaissanceRe Holdings Ltd*	086357	A+ aa-	Stable Stable	A+ u aa- u	Developing Developing	Bermuda
☑	P	Renaissance Reinsurance U.S. Inc. *RenaissanceRe Holdings Ltd*	011795	A+ aa-	Stable Stable	A+ u aa- u	Developing Developing	Maryland
☑	P	RenaissanceRe Specialty U.S. Ltd. *RenaissanceRe Holdings Ltd*	018057	A+ aa-	Stable Stable	A+ u aa- u	Developing Developing	Bermuda
—	P	Saucon Insurance Company *Saucon Holding Company*	003235	B++ bbb+	Stable Stable	A- a-	Stable Stable	Pennsylvania
⇅	P	Sheboygan Falls Insurance Company *Donegal Mutual Insurance Company*	000831	A a	Negative Negative	A a	Stable Stable	Wisconsin
⇅	P	Southern Insurance Company of Virginia *Donegal Mutual Insurance Company*	004200	A a	Negative Negative	A a	Stable Stable	Virginia
⇅	P	Southern Mutual Insurance Company *Donegal Mutual Insurance Company*	000850	A a	Negative Negative	A a	Stable Stable	Georgia
⊕	P	Split Rock Insurance, Ltd. *Intact Financial Corporation*	093460	A+ aa-	Stable Stable	A a+	Stable Stable	Bermuda
⇥	P	Titan Indemnity Company	000548	NR nr		A+ aa-	Negative Negative	Texas
⇥	P	Victoria Automobile Insurance Company	011688	NR nr		A+ aa-	Negative Negative	Ohio
⇥	P	Victoria Specialty Insurance Company	012058	NR nr		A+ aa-	Negative Negative	Ohio
⊕	P	Vine Court Assurance Incorporated *Kroger Co*	056604	A a+	Stable Stable	A a	Stable Stable	Vermont
⇅	P	Virginia Farm Bureau Mutual Insurance Co *Virginia Farm Bureau Mutual Insurance Co*	002549	A- a-	Positive Positive	A- a-	Stable Stable	Virginia
⇅	P	Virginia FB F & C Ins Co *Virginia Farm Bureau Mutual Insurance Co*	002548	A- a-	Positive Positive	A- a-	Stable Stable	Virginia

*Ratings were downgraded from b/C++ to b-/C+ on March 20, 2019. Ratings were withdrawn on March 20, 2019.

Rating Action: (⊕) Upgrade; (—) Downgrade; (New) Initial Rating; (⚑) Under Review; (⇅) Change in Outlook; (⇥) Rating Withdrawal; (☑) Rating Affirmation.
Outlook: Positive, Negative, Stable. **Implications:** Positive, Negative, Developing. **Business Type: P** = Property/Casualty (Non-Life); **L** = Life; **H** = Health; **T** = Title; **C** = Composite.

Rating Action	Business Type	Company Name/ *Ultimate Parent*	AMB#	Current FSR ICR	Current Outlook/ Implications	Previous FSR ICR	Previous Outlook/ Implications	Domicile
U.S., CANADA AND BERMUDA PROPERTY/CASUALTY (CONTINUED)								
⇅	P	Virginia FB Town and Country Ins Co *Virginia Farm Bureau Mutual Insurance Co*	011667	A- a-	Positive Positive	A- a-	Stable Stable	Virginia
New	P	West River Insurance Company *Midwest Financial Holdings, LLC*	013804	A- a-	Stable Stable	NR nr		South Dakota
—	P	Western Community Insurance Company *Farm Bureau Mutual Insurance Co of ID*	002679	A- a-	Negative Negative	A a	Negative Negative	Idaho
⇥	P	Western Heritage Insurance Company	000601	NR nr		A+ aa-	Negative Negative	Arizona
EUROPE, MIDDLE EAST AND AFRICA								
⇥	C	Arab Insurance Group (B.S.C.)** *Arab Insurance Group (B.S.C.)*	085013	NR nr		B++ bbb	Negative Negative	Bahrain
☑	P	Aspen Insurance UK Limited *Highlands Holdings, Ltd.*	084806	A a	Stable Stable	A u a u	Developing Developing	United Kingdom
⚑	P	Canopius Reinsurance AG *Fidentia Fortuna Holdings, Ltd.*	078185	A- u a- u	Negative Negative	A- a-	Stable Stable	Switzerland
☑	L	Halyk-Life, Life Insurance Subsidiary Co *Holding Group Almex JSC*	091331	B+ bbb-	Stable Stable	B+ u bbb- u	Developing Developing	Kazakhstan
⚑	P	Ironshore Europe DAC *Liberty Mutual Holding Company Inc.*	091318	A u a u	Negative Negative	A a	Stable Stable	Ireland
⇥	P	MAPFRE GLOBAL RISKS, Cía Int de Seg y Re *Fundación MAPFRE*	086801	NR nr		A a+	Stable Stable	Spain
⇅	C	Oman Insurance Company P.S.C. *Mashreqbank psc*	078177	A a	Negative Negative	A a	Stable Stable	United Arab Emirates
☑	P	Renaissance Reinsurance Eur Unlimited Co *RenaissanceRe Holdings Ltd*	087847	A+ aa-	Stable Stable	A+ u aa- u	Developing Developing	Ireland
New	P	Rosgosstrakh Insurance Company, OJSC *Central Bank of the Russian Federation*	078879	B- bb-	Stable Stable	NR nr		Russia
☑	P	Tokio Millennium Re AG *RenaissanceRe Holdings Ltd*	073848	A+ aa-	Stable Stable	A+ u aa- u	Developing Developing	Switzerland
ASIA PACIFIC								
—	P	Capital General Insurance Company Ltd *Capital Insurance Group Limited*	092953	C+ u b- u	Negative Negative	C++ b+	Stable Stable	Papua New Guinea
⊕	L	Partners Life Limited *Partners Group Holdings Limited*	091252	A- a-	Stable Stable	B++ bbb+	Positive Positive	New Zealand
⇅	P	PT Asuransi Jasa Indonesia (Persero) *PT Asuransi Jasa Indonesia (Persero)*	078591	B++ bbb+	Stable Negative	B++ bbb+	Stable Stable	Indonesia
—	C	Royal Insurance Corp of Bhutan Ltd	093021	B- u bb- u	Negative Negative	B+ bbb-	Stable Stable	Bhutan
CARIBBEAN AND LATIN AMERICA								
—	P	INTEGRAND Assurance Company *Victor J Salgado & Associates Inc*	003534	C++ u b u	Negative Negative	B++ u bbb+ u	Negative Negative	Puerto Rico
New	C	Reunion Re Cia de Reas SA	093637	B++ bbb	Stable Stable	NR nr		Argentina

Holding Companies

Rating Action	Company Name	AMB#	Current ICR	Current Outlook/ Implications	Previous ICR	Previous Outlook/ Implications	Domicile
☑	Aspen Insurance Holdings Limited	051148	bbb	Stable	bbb u	Developing	Bermuda
⇥	Atlas Financial Holdings, Inc.	052818	nr		c	Negative	Cayman Islands
New	Crown Global Ins Group LLC	025000	bb+	Positive			Delaware
☑	DaVinciRe Holdings Ltd.	051630	bbb+	Stable	bbb+ u	Developing	Bermuda
⇅	Donegal Group Inc	058355	bbb	Negative	bbb	Stable	Delaware
⇥	HealthMarkets, Inc.	058107	nr		bb+	Stable	Delaware
⇥	OneBeacon Insurance Group Holdings, Ltd.	055108	nr		bbb+	Stable	Delaware
☑	RenaissanceRe Holdings Ltd	058458	a-	Stable	a- u	Developing	Bermuda

**Rating was downgraded from bbb+ to bbb on March 28, 2019. Ratings were withdrawn on March 28, 2019.

Rating Action: (⊕) Upgrade; (—) Downgrade; (New) Initial Rating; (⚑) Under Review; (⇅) Change in Outlook; (⇥) Rating Withdrawal; (☑) Rating Affirmation.
Outlook: Positive, Negative, Stable. **Implications:** Positive, Negative, Developing. **Business Type: P** = Property/Casualty (Non-Life); **L** = Life; **H** = Health; **T** = Title; **C** = Composite.

BEST'S FINANCIAL STRENGTH RATING GUIDE – (FSR)

A Best's Financial Strength Rating (FSR) is an independent opinion of an insurer's financial strength and ability to meet its ongoing insurance policy and contract obligations. An FSR is not assigned to specific insurance policies or contracts and does not address any other risk, including, but not limited to, an insurer's claims-payment policies or procedures; the ability of the insurer to dispute or deny claims payment on grounds of misrepresentation or fraud; or any specific liability contractually borne by the policy or contract holder. An FSR is not a recommendation to purchase, hold or terminate any insurance policy, contract or any other financial obligation issued by an insurer, nor does it address the suitability of any particular policy or contract for a specific purpose or purchaser. In addition, an FSR may be displayed with a rating identifier, modifier or affiliation code that denotes a unique aspect of the opinion.

Best's Financial Strength Rating (FSR) Scale

Rating Categories	Rating Symbols	Rating Notches*	Category Definitions
Superior	A+	A++	Assigned to insurance companies that have, in our opinion, a superior ability to meet their ongoing insurance obligations.
Excellent	A	A-	Assigned to insurance companies that have, in our opinion, an excellent ability to meet their ongoing insurance obligations.
Good	B+	B++	Assigned to insurance companies that have, in our opinion, a good ability to meet their ongoing insurance obligations.
Fair	B	B-	Assigned to insurance companies that have, in our opinion, a fair ability to meet their ongoing insurance obligations. Financial strength is vulnerable to adverse changes in underwriting and economic conditions.
Marginal	C+	C++	Assigned to insurance companies that have, in our opinion, a marginal ability to meet their ongoing insurance obligations. Financial strength is vulnerable to adverse changes in underwriting and economic conditions.
Weak	C	C-	Assigned to insurance companies that have, in our opinion, a weak ability to meet their ongoing insurance obligations. Financial strength is very vulnerable to adverse changes in underwriting and economic conditions.
Poor	D	-	Assigned to insurance companies that have, in our opinion, a poor ability to meet their ongoing insurance obligations. Financial strength is extremely vulnerable to adverse changes in underwriting and economic conditions.

* Each Best's Financial Strength Rating Category from "A+" to "C" includes a Rating Notch to reflect a gradation of financial strength within the category. A Rating Notch is expressed with either a second plus "+" or a minus "-".

Financial Strength Non-Rating Designations

Designation Symbols	Designation Definitions
E	Status assigned to insurers that are publicly placed, via court order into conservation or rehabilitation, or the international equivalent, or in the absence of a court order, clear regulatory action has been taken to delay or otherwise limit policyholder payments.
F	Status assigned to insurers that are publicly placed via court order into liquidation after a finding of insolvency, or the international equivalent.
S	Status assigned to rated insurance companies to suspend the outstanding FSR when sudden and significant events impact operations and rating implications cannot be evaluated due to a lack of timely or adequate information; or in cases where continued maintenance of the previously published rating opinion is in violation of evolving regulatory requirements.
NR	Status assigned to insurance companies that are not rated; may include previously rated insurance companies or insurance companies that have never been rated by AM Best.

Rating Disclosure – Use and Limitations

A Best's Credit Rating (BCR) is a forward-looking independent and objective opinion regarding an insurer's, issuer's or financial obligation's relative creditworthiness. The opinion represents a comprehensive analysis consisting of a quantitative and qualitative evaluation of balance sheet strength, operating performance, business profile and enterprise risk management or, where appropriate, the specific nature and details of a security. Because a BCR is a forward-looking opinion as of the date it is released, it cannot be considered as a fact or guarantee of future credit quality and therefore cannot be described as accurate or inaccurate. A BCR is a relative measure of risk that implies credit quality and is assigned using a scale with a defined population of categories and notches. Entities or obligations assigned the same BCR symbol developed using the same scale, should not be viewed as completely identical in terms of credit quality. Alternatively, they are alike in category (or notches within a category), but given there is a prescribed progression of categories (and notches) used in assigning the ratings of a much larger population of entities or obligations, the categories (notches) cannot mirror the precise subtleties of risk that are inherent within similarly rated entities or obligations. While a BCR reflects the opinion of A.M. Best Rating Services, Inc. (AM Best) of relative creditworthiness, it is not an indicator or predictor of defined impairment or default probability with respect to any specific insurer, issuer or financial obligation. A BCR is not investment advice, nor should it be construed as a consulting or advisory service, as such; it is not intended to be utilized as a recommendation to purchase, hold or terminate any insurance policy, contract, security or any other financial obligation, nor does it address the suitability of any particular policy or contract for a specific purpose or purchaser. Users of a BCR should not rely on it in making any investment decision; however, if used, the BCR must be considered as only one factor. Users must make their own evaluation of each investment decision. A BCR opinion is provided on an "as is" basis without any expressed or implied warranty. In addition, a BCR may be changed, suspended or withdrawn at any time for any reason at the sole discretion of AM Best.

Financial Size Category

To enhance the usefulness of ratings, AM Best assigns each rated (A++ through D) insurance company a Financial Size Category (FSC). The FSC is based on adjusted policyholders' surplus (PHS) in U.S. dollars and may be impacted by foreign currency fluctuations. The FSC is designed to provide a convenient indicator of the size of a company in terms of its statutory surplus and related accounts.

Many insurance buyers only want to consider buying insurance coverage from companies that they believe have sufficient financial capacity to provide the necessary policy limits to insure their risks. Although companies utilize reinsurance to reduce their net retention on the policy limits they underwrite, many buyers still feel more comfortable buying from companies perceived to have greater financial capacity.

Class	Adj. PHS ($ Millions)	Class	Adj. PHS ($ Millions)
I	Less than 1	IX	250 to 500
II	1 to 2	X	500 to 750
III	2 to 5	XI	750 to 1,000
IV	5 to 10	XII	1,000 to 1,250
V	10 to 25	XIII	1,250 to 1,500
VI	25 to 50	XIV	1,500 to 2,000
VII	50 to 100	XV	2,000 or greater
VIII	100 to 250		

BCRs are distributed via the AM Best website at *www.ambest.com*. For additional information regarding the development of a BCR and other rating-related information and definitions, including outlooks, modifiers, identifiers and affiliation codes, please refer to the report titled "Understanding Best's Credit Ratings" available at no charge on the AM Best website. BCRs are proprietary and may not be reproduced without permission.

BEST'S ISSUER CREDIT RATING GUIDE – (ICR)

A Best's Issuer Credit Rating (ICR) is an independent opinion of an entity's ability to meet its ongoing financial obligations and can be issued on either a long- or short-term basis. A long-term ICR is an opinion of an entity's ability to meet its ongoing senior financial obligations, while a short-term ICR is an opinion of an entity's ability to meet its ongoing financial obligations with original maturities generally less than one year. An ICR is an opinion regarding the relative future credit risk of an entity. Credit risk is the risk that an entity may not meet its contractual financial obligations as they come due. An ICR does not address any other risk. In addition, an ICR is not a recommendation to buy, sell or hold any securities, contracts or any other financial obligations, nor does it address the suitability of any particular financial obligation for a specific purpose or purchaser. An ICR may be displayed with a rating identifier or modifier that denotes a unique aspect of the opinion.

Best's Long-Term Issuer Credit Rating (ICR) Scale

Rating Categories	Rating Symbols	Rating Notches*	Category Definitions
Exceptional	aaa	-	Assigned to entities that have, in our opinion, an exceptional ability to meet their ongoing senior financial obligations.
Superior	aa	aa+ / aa-	Assigned to entities that have, in our opinion, a superior ability to meet their ongoing senior financial obligations.
Excellent	a	a+ / a-	Assigned to entities that have, in our opinion, an excellent ability to meet their ongoing senior financial obligations.
Good	bbb	bbb+ / bbb-	Assigned to entities that have, in our opinion, a good ability to meet their ongoing senior financial obligations.
Fair	bb	bb+ / bb-	Assigned to entities that have, in our opinion, a fair ability to meet their ongoing senior financial obligations. Credit quality is vulnerable to adverse changes in industry and economic conditions.
Marginal	b	b+ / b-	Assigned to entities that have, in our opinion, a marginal ability to meet their ongoing senior financial obligations. Credit quality is vulnerable to adverse changes in industry and economic conditions.
Weak	ccc	ccc+ / ccc-	Assigned to entities that have, in our opinion, a weak ability to meet their ongoing senior financial obligations. Credit quality is vulnerable to adverse changes in industry and economic conditions.
Very Weak	cc	-	Assigned to entities that have, in our opinion, a very weak ability to meet their ongoing senior financial obligations. Credit quality is very vulnerable to adverse changes in industry and economic conditions.
Poor	c	-	Assigned to entities that have, in our opinion, a poor ability to meet their ongoing senior financial obligations. Credit quality is extremely vulnerable to adverse changes in industry and economic conditions.

** Best's Long-Term Issuer Credit Rating Categories from "aa" to "ccc" include Rating Notches to reflect a gradation within the category to indicate whether credit quality is near the top or bottom of a particular Rating Category. Rating Notches are expressed with a "+" (plus) or "-" (minus).*

Best's Short-Term Issuer Credit Rating (ICR) Scale

Rating Categories	Rating Symbols	Category Definitions
Strongest	AMB-1+	Assigned to entities that have, in our opinion, the strongest ability to repay their short-term financial obligations.
Outstanding	AMB-1	Assigned to entities that have, in our opinion, an outstanding ability to repay their short-term financial obligations.
Satisfactory	AMB-2	Assigned to entities that have, in our opinion, a satisfactory ability to repay their short-term financial obligations.
Adequate	AMB-3	Assigned to entities that have, in our opinion, an adequate ability to repay their short-term financial obligations; however, adverse industry or economic conditions likely will reduce their capacity to meet their financial commitments.
Questionable	AMB-4	Assigned to entities that have, in our opinion, questionable credit quality and are vulnerable to adverse economic or other external changes, which could have a marked impact on their ability to meet their financial commitments.

Long- and Short-Term Issuer Credit Non-Rating Designations

Designation Symbols	Designation Definitions
d	Status assigned to entities (excluding insurers) that are in default or when a bankruptcy petition or similar action has been filed and made public.
e	Status assigned to insurers that are publicly placed, via court order into conservation or rehabilitation, or the international equivalent, or in the absence of a court order, clear regulatory action has been taken to delay or otherwise limit policyholder payments.
f	Status assigned to insurers that are publicly placed via court order into liquidation after a finding of insolvency, or the international equivalent.
s	Status assigned to rated entities to suspend the outstanding ICR when sudden and significant events impact operations and rating implications cannot be evaluated due to a lack of timely or adequate information; or in cases where continued maintenance of the previously published rating opinion is in violation of evolving regulatory requirements.
nr	Status assigned to entities that are not rated; may include previously rated entities or entities that have never been rated by AM Best.

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Open for Business

Regulators: Private flood Insurance needs tweaking to take off in the United States.

The property/casualty insurers are ready to go to market, the reinsurance industry is on board, but Congress needs to provide some tweaks if it wants private insurers to fill the wide-open flood insurance marketplace.

Some attendees of the National Association of Insurance Commissioners' Spring meeting in Orlando, Florida, said private insurers are ready to fill more of the marketplace that so far has been dominated by the federal National Flood Insurance Program.

Jim Donelon

But the anticipated reauthorization of the NFIP needs to allow for what Louisiana Insurance Commissioner Jim Donelon calls a "bounceback" provision, also known as continuous coverage, for a private market to flourish. A recently adopted rule that clarifies the Biggert-Waters Flood Insurance Reform Act of 2012 does not address continuous coverage, said Brooke Stringer, senior financial policy and legislative adviser for the NAIC.

Regulators hope there is language in the reauthorization of the NFIP that will include continuous coverage, she said.

According to Donelon, various drafts of the reauthorized NFIP, which has been extended to May 31, include continuous coverage, which would allow policyholders to switch back and forth between the federal and private programs, as long as they had no lapse in coverage.

Without that provision, consumers won't enter the private market if they understand their insurer could leave the marketplace and leave them without options, he said at a meeting of the Surplus Lines (C) Task Force.

"Without that, we really will be very limited in the take-up of private flood, because the continuous coverage is necessary for protection of those grandfathered with lower rates in higher-risk areas," he said.

In addition, producers will be at risk for errors and omissions exposure in the event that one of their customers loses insurance and is left without options, he said.

According to Stringer, a reauthorization proposal by House Financial Services Chairwoman Maxine Waters, D-Calif., could feature continuous coverage, but it's unclear what a bill in the Senate would look like. Waters' willingness to collaborate combined with strong support from coastal lawmakers in the Senate may create an opportunity for bipartisan action on a long-term reauthorization, she said.

The reauthorization of NFIP came just as the federal government was entering a partial shutdown.

The initial results of a survey of data by the NAIC show a growing appetite for flood insurance. According to data NAIC released at the meeting:

- More than 120 insurers wrote private flood insurance in 2018, up from around 90 insurers in 2017 and 50 in 2016.
- The total direct premium written in states and territories was about $644 million in 2018, compared with $589 million in 2017.
- States saw a 71% growth in private flood insurance written premiums from 2016 to 2018, with 15 states experiencing over 100% growth.
- Direct earned premium reported was $606 million in 2018; direct earned premium reported in 2017 was $551 million. For perspective, NAIC said, the NFIP had approximately $3.3 billion in earned premiums in 2017.

—Timothy Darragh

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The Last Word

Into the Wild

A U.K. specialty insurer is trying to alleviate the concerns of sheep farmers who are concerned about a push to reintroduce the extinct lynx in England and Scotland.

by Lori Chordas

More than 1,300 years ago, deforestation and poaching led the Eurasian lynx into extinction. But soon the forest-dwelling wild cat may once again be roaming U.K. forests thanks to a push by a British conservation organization.

U.K. sheep farmers, however, are concerned about that effort, fearing the lynx will prey on their flocks.

Ark Specialty Programs in London is hoping to alleviate those concerns with the creation of a unique insurance-based compensation scheme for losses to sheep injured or killed during a lynx attack.

Later this year, Lynx UK Trust, which was founded in 2014 by a group of conservationists and scientists, will file its second license application with Natural England, the public body responsible for the country's wildlife licensing, to conduct a scientific trial to rewild the lynx.

Lynx UK Trust submitted its initial license proposal in 2015. It was the first-ever application made in the U.K. for the species to be reintroduced, said Dr. Paul O'Donoghue, Lynx UK Trust's chief scientific adviser. Last year, U.K. environmental secretary Michael Gove rejected the proposal, raising concerns about stakeholder support and exit strategies.

Lynx UK Trust is hoping to reintroduce the lynx in England and Scotland to help trim the overpopulation of deer in the nations and restore a natural balance in the British countryside.

As part of its trial program, the conservationist group plans to reintroduce six lynx—two males and four females—into three privately owned, unfenced estates in Kielder Forest in Northumberland.

Eurasian lynx, the largest of the four lynx species, pose little threat to humans. However, they prey on rabbits, red foxes and other small to fairly large-size mammals and birds. That's sending up a red flag to the National Sheep Association and its members who are concerned about the potential threat to their livestock.

O'Donoghue casts aside those fears. "Lynx have a negligible impact on sheep populations. In fact, based on research, it's expected that each of the six lynx in the trial could take up to only 0.4 sheep each year," he said.

Lynx UK Trust is partnering with Ark Specialty to offer sheep farmers insurance that will compensate for those losses. Ark Specialty is a division of Ark Syndicate 4020 operating within Lloyd's. Last year, Ark's Re Wilding Program policy provided cover for the release of 24 lions in Mozambique. The policy offered compensation for injury or death to indigenous people, said Richard Bryant, a senior underwriter at Ark Syndicate.

Its newest policy to U.K. sheep farmers provides above-market value for sheep that are injured or killed by a lynx during the trial period. The insurance also extends to attacks on pets and humans. Claims will be investigated to determine the method of killing and time of death, aided by state-of-the-art GPS collars "that our lynx will wear so we'll know exactly where they are at all times," O'Donoghue said.

"The next step in our effort is to hopefully get the license approved and then we can bring in the first lynx. We'll then present the data we collect from the trial, including the effects of the animals on U.K.'s social, economic and natural environments, to the government for full range adoption," he said. BR

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