



Arch Capital Group Ltd. Sustainability Accounting Standards Board Disclosure Report 2021

For the year ended December 31, 2021



Prepared in accordance with SASB

All data in this Sustainability Accounting Standards Board (SASB) disclosure is as of, or for the year ended December 31, 2021 unless otherwise noted.

SUSTAINABILITY ACCOUNTING STANDARDS BOARD DISCLOSURE

Arch Capital Group Ltd. (together with its subsidiaries, "Arch" or "the Company"), a Bermuda public limited liability company, provides insurance, reinsurance and mortgage insurance on a worldwide basis through its wholly owned subsidiaries. While we are positioned to provide a full range of property, casualty and mortgage insurance and reinsurance lines, we focus on writing specialty lines of insurance and reinsurance. In addition to providing comprehensive disclosure on our website regarding our approach to value creation, which integrates environmental, social and governance ("ESG") topics, we provide the following disclosures, which are aligned with the Sustainability Accounting Standards Board ("SASB") framework for the insurance industry. The inclusion of information contained in this report should not be construed as a characterization regarding the materiality or financial impact of that information. For a discussion of information that is material to Arch, please see our 2021 Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on February 25, 2022 ("2021 Annual Report"). This report may include forward-looking statements, which reflect our current views with respect to future events, risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. For a complete description of the risks and factors that could cause actual results to differ from our current expectations [see Item IA, pages 49-69 of our 2021 Annual Report, and our quarterly reports on Form 10-Q filed with the SEC.](#)

I. SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS

SASB TOPIC	SASB CODE	ACCOUNTING METRIC	PAGE
Transparent Information & Fair Advice for Customers	FN-IN-270a.1	Total amount of monetary losses as a result of legal proceedings associated with marketing and communication of insurance product-related information to new and returning customers	3
	FN-IN-270a.2	Complaints-to-claims ratio	3
	FN-IN-270a.3	Customer retention rate	4
	FN-IN-270a.4	Description of approach to informing customers about products	4
Incorporation of Environmental, Social & Governance Factors in Investment Management	FN-IN-410a.1	Total invested assets, by industry and asset class	5
	FN-IN-410a.2	Description of approach to incorporation of environmental, social and governance factors in investment management processes and strategies	6
Policies Designed to Incentivize Responsible Behavior	FN-IN-410b.1	Net premiums written related to energy efficiency and low carbon technology	7
	FN-IN-410b.2	Discussion of products and/or product features that incentivize health, safety and/or environmentally responsible actions and/or behaviors	7
Environmental Risk Exposure	FN-IN-450a.1	Probable maximum loss of insured products from weather-related natural catastrophes	10
	FN-IN-450a.2	Total amount of monetary losses attributable to insurance payouts from (1) modeled natural catastrophes and (2) non-modeled natural catastrophes, by type of event and geographic segment (net and gross of reinsurance)	11
	FN-IN-450a.3	Description of approach to incorporation of environmental risks into (1) the underwriting process for individual contracts and (2) the management of firm-level risks and capital adequacy	11
Systemic Risk Management	FN-IN-550a.1	Exposure to derivative instruments by category: (1) total potential exposure to non-centrally cleared derivatives, (2) total fair value of acceptable collateral posted with the Central Clearinghouse and (3) total potential exposure to centrally cleared derivatives	12
	FN-IN-550a.2	Total fair value of securities lending collateral assets	13
	FN-IN-550a.3	Description of approach to managing capital- and liquidity-related risks associated with systemic non-insurance activities	13
II. ACTIVITY METRIC			
	FN-IN-000.A	Number of policies in force, by segment	14

Transparent Information & Fair Advice for Customers

FN-IN-270a.1

Total amount of monetary losses as a result of legal proceedings associated with marketing and communication of insurance product-related information to new and returning customers

In accordance with Securities and Exchange Commission ("SEC") requirements, Arch discloses all material legal proceedings, other than ordinary routine litigation incidental to the business, in its annual reports on Form 10-K and quarterly reports on Form 10-Q. In 2021, legal proceedings and/or losses, if any, associated with marketing and communication of insurance and financial product-related information to new and returning customers were immaterial. [See Item 3, page 70 of our 2021 Annual Report.](#)

FN-IN-270a.2

Complaints-to-claims ratio

We are dedicated to providing our insureds with a consistent, exceptional level of service. In all interactions, whether for a coverage question or a claim, we strive to respond as quickly and effectively as possible. Our experienced claims handlers assist with the process, responding to customer coverage questions, complaints and/or claims.

Throughout 2021, our insurance operations executed a global strategic initiative: "The Arch Experience." The initiative sets standards for behaviors and expectations for how all colleagues interact with customers, each other and partners, across multiple areas including customer coverage issues, complaints and claims. One behavior, "Be Passionate about the Voice of the Customer," was a key priority for our claims organization leadership. We actively obtained feedback from inside and outside our organization to identify and implement initiatives to better serve our claimants. [See also FN-IN-270a.4](#), "Description of Approach to Informing Customers about Products," for additional details regarding this strategic initiative.

We provide a wide range of commercial property and casualty insurance products primarily through our U.S.-based insurance subsidiaries. Our U.S.-based insurance subsidiaries are subject to insurance regulation in the various states and jurisdictions where they transact business. Most state insurance departments provide consumer complaint data to the National Association of Insurance Commissioners ("NAIC") Consumer Information Search ("CIS"), and the NAIC produces several reports combining this data. Neither the NAIC nor Arch, however, calculates a complaints-to-claims ratio. We do not believe a

complaints-to-claims ratio is a meaningful metric for assessing a company's claim handling process. For example, companies may track open and closed claims differently, which could result in a comparison that is not meaningful. Additionally, a complaint may be received years after a claim is closed, which could overstate a company's ratio for that reporting period. A complaints-to-claims ratio also would not account for variations in an underwriting company's concentration of lines of business or market share, which further diminishes the metric's usefulness.

Based on information from the state insurance departments, the NAIC does provide a summary listing of all closed complaints by line of business for each U.S.-domiciled underwriting company. The NAIC then develops a "closed-complaint index," which considers this information as well as market share and premium by line of business. We believe this closed-complaint index is a more meaningful metric because it factors in market concentration by line of business, providing a more comparable measure. Accordingly, we provide the closed-complaint indices for our U.S. insurance underwriting companies that report financial information to the NAIC.

The NAIC defines "closed complaints" as complaints where the state has upheld the consumer's position and calculates a "closed-complaint index" by comparing a company's closed complaints to the company's market share of premiums for the respective line of business. As part of the closed-complaint ratio calculation, the NAIC uses an algorithm that compares each underwriting company's ratio to an industry-wide national median score of 1.0. The national median score attempts to normalize the ratio for each underwriting company based upon the total number of complaints, market share and other factors included in the algorithm. For each policy type, 50% of companies have ratios greater than the median score of 1.0, and 50% have ratios below the median score of 1.0. However, it is important to note that because the NAIC ratio uses written premium for the denominator, its methodology may skew the ratio for an underwriting company with little or no written premium, such as a company with run-off business. For example, for an underwriting company with little or no written premium, the ratio may appear to be abnormally high even when the company received a minimal number of complaints.

As disclosed on the NAIC website, CIS data is voluntarily supplied by state insurance departments and compiled and coded by the NAIC. Not all states provide complaint data to the CIS.

For Arch Insurance Company, the closed complaint index reported by the NAIC for 2021 was 0.027 (based on 10 complaints). For Arch Indemnity Insurance Company, the closed complaint index reported by the NAIC for 2021 was 0.013 (based on 5 complaints). For Arch Specialty Insurance Company, the closed complaint index reported by the NAIC

for 2021 was 0.005 (based on 2 complaints). For Arch Property Casualty Insurance Company, the closed complaint index reported by the NAIC for 2021 was 0 (based on 0 complaints). The above information is as of March 14, 2022 and may also be obtained through the Consumer page on the NAIC site: https://www.naic.org/cis_refined_results.htm.

For our **U.S. mortgage insurance** ("MI") subsidiaries, we rarely deal directly with consumers and, therefore, do not receive many consumer complaints filed with state insurance departments. Due to the structure of MI products, the minimal number of complaints received is not a meaningful metric for assessing our claims handling process. Therefore, our U.S. MI subsidiaries do not measure claims performance based upon complaint volume.

For our **U.S. reinsurance subsidiaries**, we do not deal directly with consumers and, therefore, do not receive consumer complaints filed with state insurance departments. In addition, our reinsurance subsidiaries do not typically receive formal complaints from their ceding company clients other than in respect to infrequent claims disputes. Therefore, our reinsurance subsidiaries do not track or measure claims performance based upon complaint volume.

FN-IN-270a.3

Customer retention rate

Global Insurance Operations. For our insurance subsidiaries, we routinely monitor our customer retention rates for all measurable lines of business, excluding products that are nonrecurring (e.g., surety products, travel products, transactional risk products and political risk coverages). We include this measure as part of our internal management reporting, ensuring we account for and address any unexpected changes within a business unit. We look at customer retention on both a premium-weighted and policy-count-weighted basis. We feel each diagnostic is informative, and we analyze customer retention at lower segmented levels where useful. Our methodology does not adjust the calculation for involuntarily terminated customers as is provided in the SASB standards.

Due to the wide diversification of business written by our insurance subsidiaries, the expected customer retention ratio varies significantly across our business units. Most of our business units achieve retention ratios between 75% and close to 100%, which remain relatively consistent over time.

U.S. Mortgage Insurance Operations. We do not track customer retention rates for our U.S. MI subsidiaries since we do not have direct contact with consumers. Instead, for our MI business, the customer is a lending institution. Based on this structure, a more meaningful metric is the retention rate of new insurance written ("NIW"), a common term in

mortgage insurance that refers to the aggregate dollar amount of newly insured mortgage loans quarterly. In 2020 and 2021, on average, over 90% of the lender home offices that submitted at least one loan (or unit count) that became NIW submitted at least one loan (or unit count) that became NIW the following quarter.

U.S. Reinsurance Operations. We do not track customer retention at a group level for our U.S.-based reinsurance business because we do not find it a useful metric given that our customers are insurance companies and our strategic focus is on adjusting capacity in different markets based on pricing. While the metric is not relevant at a group level, some individual departments do track retention rates when it makes sense for their part of the business.

FN-IN-270a.4

Description of approach to informing customers about products

Throughout 2021, our global primary insurance operations executed a global strategic initiative called "The Arch Experience" to deliver a superior customer experience. Through this intensive program for all employees in our worldwide insurance segment, led by executive leaders and peer promoters, we focused on a series of behaviors and standards to drive solutions-oriented communications with our customers. For example, one of the focused behaviors was "Be Passionate about the Voice of the Customer." As part of this training, topics such as, "Listen intently and actively to understand our customer's evolving needs" were actively discussed. Through this focus on encouraging curiosity and engagement with our customers, we can better anticipate opportunities and act proactively to provide the best solutions to our clients. Our global insurance organization is now aligned with these behavioral standards.

For our insurance and mortgage products, customer interactions are generally handled through a limited number of specialized intermediaries, including professionally licensed brokers, agents, wholesalers, administrators and mortgage originators, as applicable, who are instrumental in providing information and advisory assistance to existing and potential customers. These intermediaries are also generally involved in reviewing the policies and their terms and managing the insurance relationship following the policy's purchase. Policyholders are also encouraged to review the content wording carefully and to seek clarification as needed.

Our underwriters and sales employees have regular contact with the intermediaries to confirm that their understanding of our products is clear and comprehensive. The applicable underwriting business unit, communications group and legal department are all involved in preparing and reviewing communications distributed to current or prospective customers. Our communications are tailored to meet the

customer's specific needs and vary based on the underlying product type and segment. The information we provide may include, among other things, the specific product and policy scope (including limits and deductibles as applicable), underwriting terms and conditions, pricing information, industry and exposure-related materials, risk management support and other general information about the company issuing the underlying policy, our brand and/or our financial strength as well as information regarding how to make a claim and claims procedures, as applicable.

In our mortgage business, we work closely with lenders and industry associations to identify areas of opportunity to educate the public on our solutions and address common misconceptions about down payment requirements and the home buying process. We understand that owning a home can be financially challenging, so we see immense value in participating in inclusive opportunities for the public to engage with experts at Arch and across the industry.

On an ongoing basis, we provide educative materials on the role this part of our business plays in society. We support the efforts of the U.S. Department of Housing and Urban Development ("HUD") to identify approved housing counseling agencies across states on its website. These programs advise people on the home buying process, default prevention and credit management. By providing this consumer education, we facilitate consumer awareness of products and services and provide them with the knowledge and skills to improve their ability to manage risk.

We help borrowers prepare for the challenges and responsibilities of homeownership through our Government Sponsored Enterprise-approved homebuyer education courses at <https://www.archmi.com/hbe>. We believe that prospective homebuyers can also benefit from homebuyer education programs sponsored by community, nonprofit and governmental agencies. We are proud to partner with BALANCE®, a nonprofit financial counseling organization that makes homebuyer education accessible to a broader audience. In 2021, more than 5,600 potential homebuyers completed the homebuyer education course, a nearly 20% increase since 2020.

In the unfortunate cases where our policyholders experience a covered loss, we are committed to providing timely client service when paying claims. We offer a customer-focused approach to claims management and endeavor to deliver a quick and efficient resolution of claimant needs. Our policies are clear about the scope of coverage and the claims process. We communicate with our customers through various channels, including through our intermediaries, website, email, advertising, promotional materials, social media and at events and conferences.

Our reinsurance group generally markets its reinsurance products through professionally licensed intermediaries, except for our property facultative reinsurance group, which

generally deals directly with the ceding companies. Per the applicable reinsurance contracts, all communications with ceding companies are directed through these intermediaries, including claims communications. The reinsurance group does not market to, contract with or communicate directly with individual insureds.

[Please refer to Item 1, page 3 of our 2021 Annual Report for certain responsive information.](#)

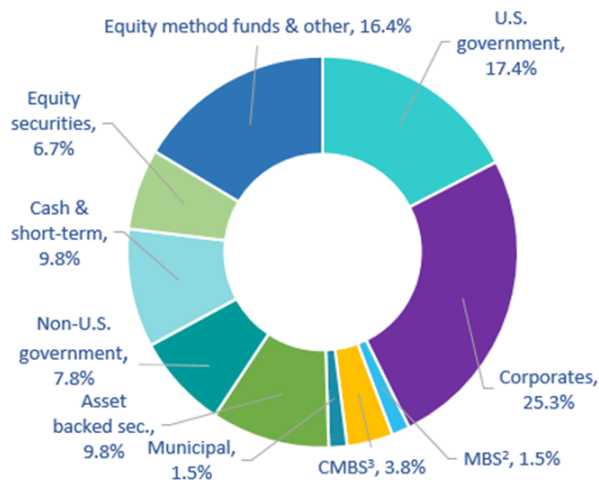
Incorporation of Environmental, Social & Governance Factors in Investment Management

FN-IN-410a.1

Total invested assets, by industry and asset class

Our investment approach seeks to enhance Arch's return on equity while avoiding undue risk. As careful stewards of the capital entrusted to us, we manage the portfolio conservatively, ensuring an ongoing ability to pay claims when due. As a long-term asset manager and owner, we actively integrate ESG factors into investment analysis and decision-making. We believe this integration contributes to improved investment returns and reduced risk over the long term and aligns with our policyholders', shareholders' and other stakeholders' best interests. For a discussion of our investment portfolio, [see Item 7, pages 73-105, "Management's Discussion and Analysis of Financial Condition and Results of Operations - Financial Condition - Investable Assets, Liquidity, and Capital Resources" in our 2021 Annual Report.](#) As of December 31, 2021, approximately 76.9% of our total investable assets were invested in fixed maturity, short-term investments and cash. The portfolio is diversified across sectors, with U.S. government securities and investment-grade corporates representing the two largest sectors. The portfolio's average S&P/Moody's credit rating was AA-/Aa3.

INVESTMENTS BY TYPE¹



¹ Excludes the results of Somers Holdings Ltd.

² MBS = Mortgage-backed securities.

³ CMBS = Commercial mortgage-backed securities.

⁴ Includes U.S. government-sponsored agency MBS and agency CMBS.

FN-IN-410a.2

Description of approach to incorporation of environmental, social and governance factors in investment management processes and strategies

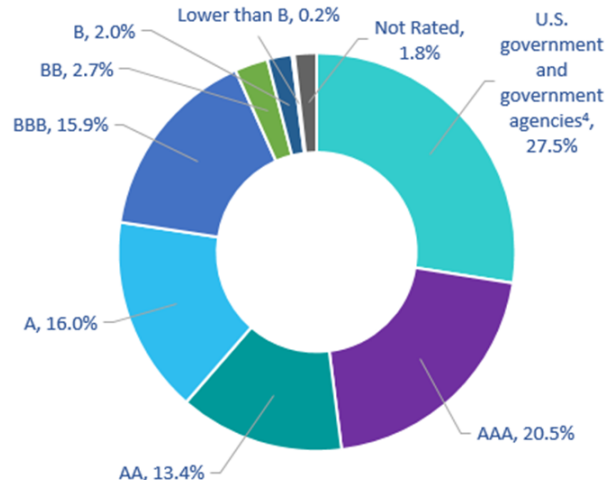
Insurance companies are subject to significant regulatory investment requirements that limit our investment flexibility in terms of the types of investments we may hold and the concentrations of credit and equity risk we may amass. These requirements are designed to ensure that insurers have sufficient liquidity to pay claims as they are presented.

As disclosed in our 2021 Annual Report, a significant majority of our funds available for investment are deployed in a widely diversified portfolio of U.S. government, corporate and other high-quality, liquid assets. The majority of our portfolio comprises securities issued by the U.S. government and government agencies and AAA, AA and A-rated securities.

As a long-term asset manager and owner, we believe that integrating ESG factors into investment analysis and decision-making processes contributes to improved investment returns and reduced risk over the long term and is consistent with our policyholders', shareholders' and other stakeholders' best interests. We believe analyzing these factors across all asset classes leads to a complete evaluation of an investment's sustainability and risk profile.

To deepen the integration of ESG factors into our investment process, we expanded our ESG Aware Policy into a formal Responsible Investing Policy ("RI Policy"). This Policy outlines our responsible investing governance framework and strategy and our approach to engagement, reporting,

FIXED MATURITIES BY RATING¹



training and communications regarding our responsible investing practices. [See pages 17-18 of our 2021 Sustainability Report for details regarding our RI Policy.](#)

We actively work to incorporate ESG factors into our investment policies. Our internal investment professionals employ qualitative and quantitative analysis to identify company or manager-specific risks and opportunities. Our RI strategy is supported by our engagement strategy; we engage regularly with investee company management to encourage high standards of corporate governance and sound management of environmental and social risks.

We liaise with our General Partners and asset managers to facilitate healthy discussion about ESG and sustainability and encourage the adoption of strong, responsible investment practices.

Our ESG risk management process involves robust pre-investment due diligence – managed by our investment teams and approved by our Investment Committee – for externally managed assets. The Investment Committee comprises senior members of our investment team, our Chief Executive Officer and Chief Financial Officer. Active engagement with external managers, post-investment, is another central tenet of our approach. For internally managed assets, ESG themes guide investment selection, resulting in the reduction of ESG risk in the portfolio. Where possible, we seek to reduce exposure to coal, tobacco and firearms, sourcing similar performing assets with stronger sustainability impacts elsewhere. We systematically seek to reduce exposure to companies with poor ESG scores and opportunistically seek to add renewables or positive-ESG assets to the portfolio through all asset classes.

Policies Designed to Incentivize Responsible Behavior

FN-IN-410b.1

Net premiums written related to energy efficiency and low carbon technology

At Arch, we capture premium data based on the line of business and by state (as applicable) rather than data related to energy and low carbon technology. This is in line with statutory insurance regulations and generally does not lend itself to summarizing the net premiums written related to such exposures. In addition, the premium data reporting requirement by state insurance regulators does not lend itself to summarizing the net premiums written related to such exposures.

We believe Arch is positioned to benefit from the increased economic activity related to energy and resource efficiency. Through our U.S. casualty insurance business, we have introduced products that support solar energy, wind, methane recovery, biofuel production and Leadership in Energy and Environmental Design (LEED)-certified buildings. Through our international energy division, we target expansion in the renewable sector by supporting new ventures in offshore wind farm fields and the solar sector.

FN-IN-410b.2

Discussion of products and/or product features that incentivize health, safety and/or environmentally responsible actions and/or behaviors

Through our U.S. casualty insurance business units such as construction, national accounts, casualty, retail energy, alternative markets, defense base act, foreign casualty for overseas military/governmental bases and high excess workers' compensation, we offer primary and excess casualty coverages to middle market and large accounts in a variety of industry segments. Our large account underwriting segments specialize in loss-sensitive insurance programs, including large deductible, self-insured retention and retrospectively rated programs. These programs involve individual account ratings and pricing, which allows the insured to better manage their premium costs because they are more closely tied to their own loss experience. With this type of program structure, the risk is shared between the insurer and the insured. The insured is incentivized to implement and adhere to strong risk management, safety and loss prevention programs because their individual loss experience will have the most positive impact on their ultimate premium cost.

Health & Safety

1. Our Risk Control Services Platform. Through our risk and loss control service platform, Arch Risk Control, we offer health and safety support for our U.S.-based casualty insurance customers, including construction, national accounts, retail energy, high excess workers' compensation, alternative markets, property/casualty programs and excess and surplus casualty. We provide businesses with access to comprehensive services that include dedicated training, technical information and consulting solutions to help our customers safeguard their employees.

Our risk control staff has helped our customers better understand and manage their health, safety and environmental risks and exposures to loss. In 2021, we expanded our risk control staff by more than 40% by hiring professionals with diverse skill sets to broaden our capabilities and increase our interactions with policyholders. We engage directly with our customers on an ongoing basis to provide best practices and support. We assess prospective and currently bound accounts to identify gaps in existing programs and opportunities to improve results. These assessments help establish service action plans to improve safety and overall risk management practices. This support includes:

- *COVID-19 Resource Communication.* Since the pandemic began in early 2020, we have provided our customers with COVID-19 resource communications, including overviews of available government resources, sample pandemic preparedness and response plans, various checklists and tools to manage remote workers, facility sanitation procedures and suggested approaches for employee reentry.
- *Consulting on Work Site Safety and Employee Onboarding Programs.* We understand that a new employee's first few months on the job involve the greatest potential for injury. This is a critical time for employers to properly train and orient employees to be aware of hazards and how to control them. Through our consulting services, we help our customers develop and implement consistent workplace safety orientation and training programs and encourage them to hold their supervisors accountable for these critical activities. Examples of critical work site employee safety training topics include effective daily briefings and task hazard analysis, fall protection, electrical safety, struck-by, confined space entry, excavations, lockout/tagout, driver safety and heavy equipment operations. Beyond the new employee focus, our consulting efforts emphasize client management systems and processes to encourage employee safety practices to be carried

out and consistently maintained and audited throughout the employment life cycle.

- *Consulting to Protect the Public.* Many of our policyholders interact with, or are exposed to, the public through the communities and customers they serve. Some of their scopes of work may create potential injury exposure to the public. Arch Risk Control focuses on these public exposures and helps our clients develop plans and best practices to eliminate or minimize exposure to injuries. This includes (i) driver improvement to prevent policyholder at-fault accidents impacting the traveling public, (ii) assistance with slip/fall exposures in retail environments and (iii) improved safety and management of temporary highway work zones to facilitate safe passage for public vehicles and pedestrians.
- *Safe Driving.* Driving creates a significant risk to our customers' employees and the public. Our risk control staff works with our customers to help them properly screen and manage employee drivers of all types of vehicles to improve their on-the-road safety performance. We also promote safe driving and provide our customers with access to driver training and management resources through a third-party alliance. These resources are designed to combat distracted driving and reinforce defensive driving skills. We now offer our customers, through a third-party vendor, access to continuous employee driver record monitoring so that our customers can better assess their drivers' risk profiles in real time.
- *New for 2022.* In 2021, we pursued various business alliances to provide additional resources for our policyholders. These alliances focus on preferential pricing and Arch contributory funding arrangements for targeted safety and loss prevention tools, such as:
 - Crisis counseling and mental health consulting, including post-traumatic event counseling through R3 Continuum (i.e., supporting companies in building resilient workplaces in the face of disaster, disruption and everyday behavioral health challenges).
 - Mobile device blocking apps to address distracted driving.
 - Vehicle camera and telematics systems for driver monitoring and improvement.
 - Cloud-based safety management system software.
 - Online safety and health training.

2. Safety Training for First Responders. In addition, through our programs for emergency responders and firefighters, we offer a suite of safety and training aids to help promote safety and reduce the potential of on-the-job error or injury. Our services educate and inform these first responders on industry safety and compliance best practices. These services are offered to thousands of ambulance and emergency workers and volunteers. In addition, we offer an e-learning and training management system with currently over 530 courses available. While e-learning is not meant to replace quality face-to-face and hands-on training, we realize that tremendous time requirements are placed on individuals in today's fast-paced environment, making it difficult for everyone to attend scheduled training. Our e-learning courses allow first responders to supplement scheduled hands-on training and are available 24/7.

Our webinars are designed to help our insureds stay safe and supported while serving their communities during times of crisis. We extend participation in these webinars to non-clients too. Through our webinar series, we reached more than 17,000 unique viewers from more than 1,700 organizations in 46 states and three countries. The following are some of the topics covered during the training:

- *Emergency Vehicle Driver Training.* We offer comprehensive driver education covering the skills and knowledge required to operate emergency vehicles. These classroom and hands-on courses are offered to better prepare drivers to cope with the extra demands when working in emergencies.
- *Operation SafeEMS.* This training program is designed to assist in safe patient handling. The program covers both the health and safety of the EMS provider and the comfort and safety of the patient.
- *Violence Prevention for Emergency Responders.* Over half of all emergency responders report having been involved in a violent situation at least once in their career. To address this problem, we offer training meant to increase the awareness level of the emergency responder. With this awareness, participants carry knowledge to the emergency scene to help prevent violence from occurring.
- *Intersection Accident Prevention Course.* Intersection accidents are the most frequent type of accident faced by emergency responders and are often expensive and deadly. Our course teaches emergency responders how to navigate intersections more safely, decreasing the frequency and severity of these accidents.
- *Safe Handling of Fire Gear.* We provide education on safely cleaning and storing protective fire gear that often contains by-products of combustion.

Because some firefighters, especially volunteer firefighters, frequently take their gear home with them, we provide education about the secondary exposure risks to their families and how to prevent them.

Environmentally Responsible

One of our core commitments is identifying business opportunities associated with more environmentally friendly practices. We develop products and product features that address our customers' evolving needs and incentivize responsible environmental behavior, while being priced to meet our long-term financial objectives.

- **Renewable Energy Practice.** Through our proprietary general liability practice, our products extend coverage to power generation and renewable energy customers active in solar and wind technology. Our products, services and expertise help these industries keep their employees safe and protect their physical assets, balance sheet and, ultimately, their long term success. Our coverage provides insurance solutions for all aspects of a renewable energy business, from research and development to operations. As U.S. domestic and international renewable energy industries continue to expand, our renewable energy practice analyzes industry trends, market data and loss trends to design and develop insurance products tailored to the specific needs of renewable energy businesses.
- **Surety Bonds for Solar Energy.** Through our Surety business we support the climate transition by focusing on the renewable energy sector. The demands for renewable energy, including solar energy, are increasing, leading to more solar development projects. In early 2021, our Surety team formally created "Project Flywheel," a dedicated team of surety underwriters specializing in the renewable energy industry. The team focuses on solar, wind, battery/energy storage, biomass and hydro opportunities for financial assurance requirements. Arch Surety provides a myriad of bonds to the renewable energy sector, including performance bonds guaranteeing the construction of solar plants (both light commercial and grid scale), interconnection bonds guaranteeing that renewable energy sources are designed and constructed to tie into the grid correctly, and performance bonds that guarantee grid-scale battery storage systems are built and installed to specifications.
- **Green Building Coverages.** Traditional property policies are designed to provide coverage to rebuild a structure as it existed before to a loss, with materials of like kind and quality. If an insured, further to a covered peril, elects to replace its damaged traditional building with a sustainable one, our "Arch Gateway" policy form covers

the additional costs to achieve at least the minimum requirements, including the cost of sustainable materials, certified professionals, the certification application and transporting debris to recycling facilities.

- **Premium Credits Offered in Connection with Commercial Property Coverage.** Arch encourages environmentally responsible behaviors by offering premium credits. Through our risk selection process, insureds can qualify if they:
 - **Have or install early fire detection and suppression systems.** Such systems are designed to reduce the frequency and severity of fires resulting in reduced carbon emissions.
 - **Meet "substantial" building construction standards.** Commercial properties built to withstand wind or earthquake may, in the event of a loss, have reduced debris disposal at landfills.
 - **Adhere to proper property and equipment maintenance.** The benefits include avoiding fires, floods, mechanical breakdowns or water intrusion leading to mold or contamination as well as reduced debris from obsolete equipment.
- **Onshore Energy Business Unit.**
 - **Climate Transition Pathways.** In November 2021, our insurance operations in the United Kingdom joined the Willis Towers Watson "Climate Transition Pathways" ("CTP") initiative which helps high carbon industries get access to insurance while they take steps to transition to lower carbon solutions. Industry-agnostic customers leverage CTP to find insurance capacity when their transition plans are aligned with the Paris Agreement¹ and are accredited by an external third party. We are proud to support this innovative solution that supports environmentally conscious behaviors.
 - Recognizing opportunities in renewable energy, our onshore energy group is focused on growing our portfolio in energy efficient and low carbon technology markets including renewable power generation, nuclear power generation, hydro, biofuel or geothermal power generation and biofuel production.
- **Retail Energy Business Unit.** Our proprietary general liability and umbrella policy forms extend coverage to oil and gas businesses. We have begun updating our products for certain midstream oil and gas accounts and for certain oil and gas contractor accounts. These product updates provide additional coverage for pollution-related losses, including certain losses resulting

¹ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104

from certain carbon dioxide sequestration operations and saline substances, and reduce or exclude coverage for power generation using coal, or for the mining, processing, handling, storage or transportation of coal. In this ever-changing industry, we offer expertise and products to address our clients' unique risks. Our underwriting and risk control professionals are focused on our customers in this space and seek to provide the products, services and expertise needed to manage risk, avoid accidents and offer the support and resources to help customers recover in the event of a loss. In addition, our Retail Energy unit has placed additional emphasis on understanding and encouraging the ESG efforts of our new and renewal accounts.

- **Pollution Spills.** It's critical for the oil and gas industries to keep wells operational and be responsible stewards of the environment. We offer our oil and gas customers protection against oil-site spills including pollution cleanup costs and pollution-related bodily injury and property damage. Recognizing the potential for environmental impact as a result of seepage or a spill, we have written specific coverage enhancements for pollution events into our Cornerstone CGL policy to allow our customers to more rapidly address and clean up a spill before it migrates or worsens.
- **Well Control Events.** To address these potentially significant impacts to our customers, their employees and the environment, we have partnered with Wild Well Control, Inc. to offer our customers best practice oil and gas well control training, emergency response plans and incident response. We also provide certain customers access to a telephone hotline that connects them with a well control professional as a situation develops who can provide steps to manage well pressure to avoid a well blowout.

- **Environmentally Focused Risk Control Services.** Our Arch Risk Control platform also provides support and training to our insureds, including hot work (i.e., welding, flame cutting) and fire impairment protocols and best practices. In addition we plan to provide support for emergency response planning, flood emergency response plan development, hurricane preparedness and safe solar panel installation.

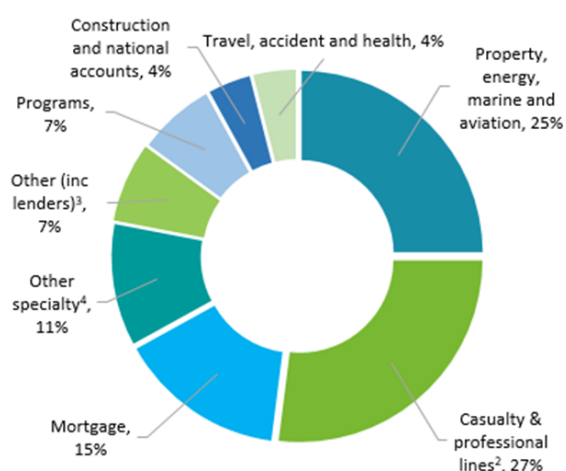
Environmental Risk Exposure

FN-IN-450a.1

Probable maximum loss of insured products from weather-related natural catastrophes

We operate leading specialty property and casualty and mortgage insurance businesses across a wide range of geographies and products providing meaningful diversification and earnings stability. 85% of our total net premiums written in 2021 were from our property and casualty business, while 15% originated from our mortgage insurance business. The graph below shows a detailed allocation of our net written premiums.

LINE OF BUSINESS¹



1. Based on net premiums written, excluding amounts attributable to the "other" segment (i.e., Somers).
2. Includes casualty, professional liability, executive assurance, healthcare, contract binding and excess motor.
3. Includes insurance for lenders products, alternative markets and other insurance and reinsurance.
4. Includes reinsurance for proportional motor, trade credit, surety, workers' compensation catastrophe and other.

We have large aggregate exposures to natural catastrophic events, including floods, tsunamis, windstorms, earthquakes, hailstorms, tornadoes, severe winter weather, fires, droughts and other natural disasters. We monitor our exposure to catastrophic events and periodically reevaluate the estimated probable maximum loss for such exposures. We use natural catastrophe modeling techniques to estimate loss from catastrophic events. Our approach to evaluating underwriting risk from natural catastrophes employs both proprietary and vendor-based models to inform risk assumption and reinsurance purchasing decisions designed to manage our exposure to catastrophic events. We actively monitor and evaluate the impact of changes in the vendor-based systems and adjust our risk evaluation as necessary. As new information and techniques emerge, we

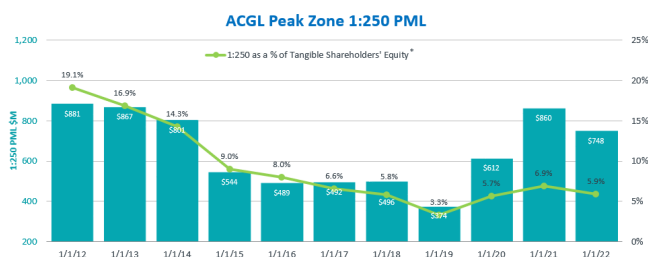
update our proprietary models, which are an integral part of our enterprise risk management process and support our long-term financial strategies and objectives.

For our natural catastrophe-exposed business, we seek to limit the amount of exposure we will assume from any single insured or reinsured and the amount of the exposure to catastrophe losses from a single event in any geographic zone. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of tangible shareholders' equity available to Arch (total shareholders' equity available to Arch less goodwill and intangible assets). We reserve the right to change this threshold at any time.

Based on in-force exposure estimated as of January 1, 2022, our modeled peak zone catastrophe exposure is a windstorm affecting the Northeast U.S., with a net probable maximum pre-tax loss of \$748 million, followed by windstorms affecting the Florida Tri-County area and the Gulf of Mexico with net probable maximum pre-tax losses of \$727 million and \$649 million, respectively. As of January 1, 2022, our modeled peak zone earthquake exposure (San Francisco, California area earthquake) represented approximately 78% of our peak zone catastrophe exposure, and our modeled peak zone international exposure (U.K. windstorm) was substantially less than our peak zone windstorm and earthquake exposures. Refer to the chart below of our peak zone probable maximum loss for additional context regarding our estimates of changing exposure to natural catastrophes in our portfolio over time.

Net probable maximum loss estimates are net of expected reinsurance recoveries before income tax and before excess reinsurance reinstatement premiums. Catastrophe loss estimates reflect the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our catastrophe loss estimates include clash estimates from other zones.

ACGL Peak Zone 1:250 PML



* Total shareholders' equity available to Arch less Goodwill and intangible assets.

FN-IN-450a.2

Total amount of monetary losses attributable to insurance payouts from (1) modeled natural catastrophes and (2) non-modeled natural catastrophes, by type of event and geographic segment (net and gross of reinsurance)

The table below displays the estimated net losses incurred from current accident year natural catastrophe events for our insurance and reinsurance segments for the last three years, after considering ceded reinsurance and reinstatement premiums. Note these are estimates as of December 31 of each year for events occurring in that year, as reported in our Financial Supplements, which are available on the Investors page of our [website](#). See also the chart in [Section FN-IN-450a.1](#) of our peak zone probable maximum loss for additional context regarding our estimates of changing exposure to natural catastrophes in our portfolio over time.

Segment	Accident Year		
	2021	2020	2019
Insurance	\$ 204,463	\$ 154,803	\$ 34,235
Reinsurance	437,228	258,480	79,192
Total	\$ 641,691	\$ 413,283	\$ 113,427

Arch does not currently distinguish between modeled/non-modeled losses and does not find that to be a meaningful distinction.

FN-IN-450a.3

Description of approach to incorporation of environmental risks into (1) the underwriting process for individual contracts and (2) the management of firm-level risks and capital adequacy

The Nominating and Governance Committee of our Board of Directors ("Board") provides oversight for ESG matters. Executive Management and our ESG team are responsible for the management and coordination of Arch's ESG efforts, including the integration of climate change in our corporate strategy. Climate-related risks are evaluated and monitored regularly in our underwriting and risk management processes. [See also page 7 our 2021 Sustainability Report for more information on our risk oversight.](#)

We consider climate risk (physical, liability and transition risk) alongside all other relevant risks (e.g., underwriting, investment and operational) and perils in our evaluation process. We look at the impact of climate factors in the near and long terms. Risks tied to climate change are articulated and addressed in our [Task Force for Climate-related Financial Disclosures Report](#), our entity-wide risk register

and in our annual Own Risk and Solvency Assessment ("ORSA").

Climate change could impact the frequency or severity of weather events such as hurricanes, tornado activity, windstorms, floods and wildfires. Any increase in the frequency or severity of natural disasters may adversely affect our financial condition and results. We use various modeling methods, some proprietary and some using third-party computer models, to inform our underwriting and reinsurance decisions and manage our aggregate exposure to climate risk and catastrophic events. The exposures include those from natural catastrophes such as hurricanes, earthquakes, typhoons and wildfires. The output of our modeling keeps our management informed of peak high-risk zones and insurance policies with exposure to a risk for a substantial loss from a catastrophic event.

The underwriting process is tailored by its nature to reflect the unique characteristics of the underlying risk. In addition to natural catastrophe exposures, we may factor other related environmental risk characteristics into our underwriting process. As underlying drivers of risk change, such as those from environmental causes, we reflect the changed riskiness in both our pricing and our overall risk appetite. We may limit risk through contract endorsements and/or exclusions in certain circumstances.

One key risk metric we incorporate in our underwriting decisions is a target return on capital. Riskier contracts will require a higher return on capital and consequently higher prices. This enables us to manage risk across our portfolio to an acceptable level and allocate capital efficiently. Our target returns on capital are based on an overall view of the group's required risk capital and capital adequacy. We monitor capital adequacy against required capital on an ongoing basis and report the results quarterly to our Board quarterly. In addition, we perform an annual ORSA process focused specifically on risk governance, firm-wide risks and capital adequacy. The resulting ORSA report is provided to our Board and regulators.

Systemic Risk Management

FN-IN-550a.1

Exposure to derivative instruments by category: (1) total potential exposure to non-centrally cleared derivatives, (2) total fair value of acceptable collateral posted with the Central Clearinghouse and (3) total potential exposure to centrally cleared derivatives

On December 31, 2021, the total investable assets held by Arch were \$27.4 billion. Our current investment guidelines and our investment approach stress preservation of capital, market liquidity and diversification of risk. The portfolio

consists primarily of high-quality fixed-income securities, with fixed maturities, short-term investments and cash representing 76.9%, average effective duration of 2.70 years and average S&P/Moody's credit rating of AA-/Aa3. Additional details about the investment portfolio can be found in the ["Investable Assets Held by Arch" section of "Financial Condition" in Item 7, pages 91-101 in our 2021 Annual Report.](#)

The Company's investment strategy allows for the use of derivative instruments, which are recorded on consolidated balance sheets at fair value. Arch uses various derivative instruments such as futures contracts to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under our investment guidelines if implemented in other ways.

Certain of the Company's investments are managed in portfolios that incorporate the use of foreign currency forward contracts, which are intended to provide an economic hedge against foreign currency movements. The Company also purchases to-be-announced mortgage-backed securities ("TBAs") as part of its investment strategy. TBAs represent commitments to purchase a future issuance of agency mortgage-backed securities. For the period between the purchase of a TBA and issuance of the underlying security, the Company's position is accounted for as a derivative. The Company purchases TBAs in both long and short positions to enhance investment performance and its overall investment strategy.

The estimated fair value and notional values of the Company's derivative instruments at December 31, 2021 are summarized below:

	Estimated Fair Value		
	Asset Derivatives	Liability Derivatives	Notional Value ¹
Futures contracts ²	\$ 34,999	\$ (9,808)	\$ 2,826,564
Foreign currency forward contracts ²	7,734	(11,390)	915,962
TBAs	11,227	—	11,227
Other ²	73,161	(33,026)	3,736,773
Total	\$ 127,121	\$ (54,224)	

1 Represents the absolute notional value of all outstanding contracts, consisting of long and short positions.

2 The fair value of asset derivatives is included in 'other assets' and the fair value of liability derivatives is included in 'other liabilities.'

[See note 11, "Derivative Instruments," to our consolidated financial statements in Item 8, page 160-161, of our 2021 Annual Report, for additional disclosures concerning derivatives.](#)

FN-IN-550a.2

Total fair value of securities lending collateral assets

In 2021, the Company terminated its securities lending program and no longer enters into securities lending agreements with financial institutions to enhance investment income. Before the program's termination, the Company loaned certain securities to third parties, primarily major brokerage firms, for short periods through a lending agent. The Company maintained legal control over the securities it lent (shown as 'Securities pledged under securities lending, at fair value' on the Company's balance sheet), retained the earnings and cash flows associated with the loaned securities and received a fee from the borrower for the temporary use of the securities. An indemnification agreement with the lending agent protected the Company if a borrower became insolvent or failed to return any of the securities on loan from the Company.

The Company receives collateral (shown as 'Collateral received under securities lending, at fair value' on the Company's balance sheet) in the form of cash or U.S. government and government agency securities. At December 31, 2021, the Company had no cash collateral or security collateral due to the program's termination. On December 31, 2020, the fair value of the cash collateral received on securities lending was nil, and the fair value of security collateral received was \$301.1 million.

The carrying value of collateral held under the Company's securities lending transactions by significant investment category and remaining contractual maturity of the underlying agreements was as follows at December 31, 2020 (no balances at December 31, 2021 due to the program's termination):

(\$000's)	Remaining Contractual Maturity of the Agreements				
	Overnight and Continuous	Less than 30 Days	30-90 Days	90 Days or More	Total
<i>December 31, 2020</i>					
U.S. government and government agencies	\$ 142,317	\$ —	\$ 139,290	\$ —	\$ 281,607
Corporate bonds	3,021	—	—	—	3,021
Equity securities	16,461	—	—	—	16,461
Total	\$ 161,799	\$ —	\$ 139,290	\$ —	\$ 301,089

FN-IN-550a.3

Description of approach to managing capital- and liquidity-related risks associated with systemic non-insurance activities

Arch's Enterprise Risk Management ("ERM") framework encompasses all entities across the group. We have a number of non-insurance company entities performing various functions and/or services, primarily for our underwriting units. They are not considered material sources of risk to the enterprise and are covered by our group risk policy. Included in these non-insurance entities are: (i) the ultimate parent holding company and the intermediate holding companies, (ii) the servicing companies for the group's operational activities, (iii) providers of insurance-related services, (iv) managing general agents for certain of our insurance entities and (v) investment holding companies. Additionally, there is an entity that purchases residential mortgage loans for sale or securitization.

As a large property and casualty and mortgage insurance enterprise, we are exposed to risks from many sources. There are certain risks that we seek for return, while other risks we accept as a by-product of being in business. Since certain risks can be correlated with other risks, the impact of

an event or a series of events can aggregate across multiple areas simultaneously and have a material effect on our operations, financial position and/or liquidity. These exposures require an enterprise wide view of risk with respect to the potential impact on all aspects of our operations. We manage our risk taking to be within our stated risk appetites to create and preserve value for all stakeholders.

ERM activities involve identifying and assessing a broad range of risks, monitoring those risks and executing strategies to manage those risks. Effective ERM also includes determining our capital requirements to support the risks from economic, financial and regulatory perspectives.

Our Board oversees and monitors enterprise risk in support of our long-term financial strategies and objectives. Executive management has day-to-day responsibility for the risk management of our operations. Our Chief Risk Officer is responsible for risk management in support of executive management. Our risk management framework is reviewed and approved at least annually to align with our risk profile.

Activity Metric

FN-IN-000.A

Number of policies in force, by segment

Insurance and Reinsurance. The number of policies in force is not an activity metric we use for the insurance or reinsurance coverages we sell to businesses. This measure is not a meaningful metric for coverages that are sold and managed on an account or customer relationship basis.

U.S. Mortgage Insurance. We report policies-in-force data quarterly for our U.S. primary mortgage insurance operations. Information regarding our policies in force for 2020 and 2021 is disclosed in the table below:

Mortgage Insurance	1Q 2020	2Q 2020	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021
Ending number of policies in force *	1,293,799	1,259,328	1,245,408	1,245,771	1,214,245	1,199,918	1,188,768	1,171,835
Change from prior year quarter (%)	0.5 %	(2.5)%	(4.5)%	(4.7)%	(6.1)%	(4.7)%	(4.5)%	(5.9)%
Change from prior quarter (%)	(1.1)%	(2.7)%	(1.1)%	0.0 %	(2.5)%	(1.2)%	(0.9)%	(1.4)%

* Includes first-lien primary and pool policies.