

SELECTIVE INSURANCE TCFD REPORT

INTRODUCTION

As a property and casualty (“P&C”) insurance company, Selective provides coverage for thousands of individuals and businesses against the financial impact of insured losses, including those caused by catastrophic events.

Climate change increases the unpredictability of weather-related loss frequency and severity, posing a long-term risk to our customers’ lives and livelihoods and our business. As an insurance company, we believe it is our corporate responsibility to help mitigate climate change impacts for our stakeholders. By embedding sustainable initiatives into key aspects of our business, we have delivered significant value over time for our shareholders by serving our internal and external stakeholders.

Climate change also allows Selective and our industry to take a leadership role in developing products and services that increase customer resiliency and respond to evolving customer needs. Over the medium- to long-term, we believe that the economic transition to a low-carbon future creates new business opportunities in emerging industries, such as those associated with renewable energy and related construction projects.

Selective has embraced the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) that focus on four core elements of an organization’s climate approach: (i) Governance, (ii) Strategy, (iii) Risk Management, and (iv) Metrics & Targets. This report outlines our initiatives and progress in each of these four areas.

Company Background

Selective Insurance Group, Inc. (“the Company”) is a New Jersey insurance holding company incorporated in 1977 that owns ten property and casualty insurance subsidiaries (“Insurance Subsidiaries”). The Insurance Subsidiaries sell products and services only in the United States (“U.S.”) exclusively through independent insurance agents and wholesale brokers. We have four reportable segments.

Standard Commercial Lines: This segment’s underwriting risk appetite is focused on small-to-medium sized accounts, with risks generally characterized as low-to-medium hazard. Standard Commercial Lines provides insurance products and services to commercial enterprises, typically businesses, non-profit organizations, and local government agencies. This business represented 77% of consolidated revenues in 2022.

Standard Personal Lines: This segment provides insurance products and services to individuals (primarily auto and homeowners insurance) acquiring coverage in the standard marketplace. This business represented 9% of consolidated revenues in 2022. Our Personal Lines segment also includes flood insurance coverage sold through the Write Your Own ("WYO") program of the National Flood Insurance Program ("NFIP"). Based on 2022 direct premiums written, we are the fourth-largest writer of this coverage through the NFIP.

Excess and Surplus Lines ("E&S"): This segment comprises commercial property and casualty insurance products and services provided to customers unable to obtain coverage in the standard marketplace, generally because of unusual or higher-risk exposures. This business represented 9% of consolidated revenues in 2022.

Investments: The segment represents 5% (including net realized and unrealized gains and losses) of consolidated revenues and invests the (i) premiums collected by our insurance operations and (ii) amounts generated through our capital management strategies, which include the issuance of debt and equity securities. We maintain a conservative investment portfolio principally invested in high-quality, liquid-fixed income and short-term investments, with a modest allocation to risk assets.

Governance

Board Oversight: Our board's oversight of climate-related risks and opportunities.

Our Board of Directors oversees our Enterprise Risk Management ("ERM") process, which includes identifying, assessing, and managing risks related to climate change. The Board has overall risk oversight and responsibility for individual risks monitored by dedicated Board-level committees, including risks posed by climate change. Our Board's Audit Committee meets at least quarterly and is responsible for assisting the Board in overseeing and monitoring our ERM function, including climate change-related risks.

All Board committees oversee risks specific to their areas of supervision and report their activities and findings to the entire Board. For example, the Finance Committee oversees our reinsurance program, a key element of our climate risk management strategy; and the Corporate Governance and Nominating Committee ("CGNC") is responsible for overseeing how management addresses sustainability trends.

The Board also oversees our overall strategy setting, which includes monitoring of risks and opportunities related to climate.

Management: Management's role in assessing and managing climate-related risks and opportunities.

Our senior leadership team is responsible for implementing our strategy, including assessing and pursuing climate change-related business opportunities. The Executive Risk Committee ("ERC"), chaired by our Chief Risk Officer ("CRO"), is responsible for operational oversight of climate-related risks. The ERM unit is responsible for assessing and managing the financial risks from climate change. We describe the roles of the ERC and ERM unit below.

Executive Risk Committee:

Our ERC, which includes our Chief Executive Officer ("CEO") and his direct reports, CRO, as well as other key functional leaders, provides management oversight of the ERM function. The ERC is responsible for the holistic evaluation and supervision of our risk profile and determines future risk management actions supporting our overall risk appetite. Several other management committees are responsible for the detailed analysis and management of various individual risks, many of which are climate change-related. At least quarterly, the ERC reviews all major risks, including those climate change presents.

For example, the ERM unit reports our modeled results for hurricane losses (our peak catastrophe risk peril at the tail of the probability loss distribution), gross and net of reinsurance in our quarterly Reinsurance Risk Scorecard provided to the ERC and Board of Directors.

ERM Unit:

The ERM unit, led by the CRO, is responsible for identifying, measuring, monitoring, and reporting the key and aggregated enterprise risks to the ERC and the Boards of Directors. The ERM unit also works with other functional areas to develop appropriate responses to identified risks and support the successful execution of our business strategy. The CRO chairs the Emerging Risk Committee and Market Security Committee ("MSC") and is a member of the Management Investment Committee ("MIC"), Sustainability Committee, Underwriting Committee, and the Large Claims Committee. These committees are responsible for monitoring various risks, including risks related to climate change, described further in this report's Risk Management section.

The ERM unit is involved actively in climate-related issues, such as catastrophe exposure coverages and pricing. The ERM unit also manages our economic capital model and integrates catastrophe exposure into our holistic view of enterprise risk and capital management.

The Graph below illustrates three levels of corporate governance and lists designated Board of Directors and Selective Management and Operating Committees, including: Executive Committee, Audit Committee, Finance Committee, Salary & Employee Benefits Committee, Corporate Governance & Nominating Committee, Management Investment Committee, Underwriting Committee, Emerging Risk Committee, Enterprise Project Management Office Committee, Large Claims Committee, Disclosures Committee, Sustainability Committee, Executive Risk Committee, and Reserve Committee.



STRATEGY

Identified Climate-related Risks and Opportunities: The climate-related risks and opportunities the organization has identified over the short, medium, and long term.

The following table includes examples of climate-related risks and opportunities Selective has identified for each time horizon.

Time Horizon	Climate Risks	Climate Opportunities
Short-term: 1 – 5 years	<ul style="list-style-type: none">• Increased model uncertainty around severe weather events resulting from potentially higher catastrophe loss activity	<ul style="list-style-type: none">• Developing renewable energy production• Enhancing customer resiliency• Providing product incentives to lower carbon footprint for customers
Medium-term: 5 – 10 years	<ul style="list-style-type: none">• Potential investment losses from climate-risk-related impacts• Insurance market transition risk• Regulatory risk	<ul style="list-style-type: none">• Developing new insurance products tailored to emerging industries
Long-term: 10 – 30 years	<ul style="list-style-type: none">• Climate change impact on frequency and severity of weather events	<ul style="list-style-type: none">• New investment opportunities

Climate Risks

1. Increased model uncertainty around severe weather events resulting from potentially higher catastrophe loss activity (short-term)

The insurance industry has used traditional catastrophe risk models for decades to inform underwriting strategy. A significant component of climate change risk is that the frequency and severity of extreme weather events may evolve differently than historical levels – leading to increased model uncertainty. For example, there has been an increase in the frequency of land-falling hurricanes and tropical storms in the United States in recent years, which partly could be attributed to climate change. Our third-party modeling providers are starting to develop models incorporating forward-looking climate variables. A later section of this report discusses how we mitigate this uncertainty in the short-term.

2. Potential investment losses from climate-related impacts (medium-term)

Our investment portfolio is exposed to climate change risk through (i) direct physical loss to assets and infrastructure from catastrophic loss activity and (ii) transition risk related to technology and energy production advances that could lead to stranded assets in certain carbon-intensive sectors.

Physical investment risks: Climate-related catastrophic losses can cause business disruption, destroy capital, increase costs to recover from disasters, reduce revenue, and cause population displacement and migration. These, in turn, can lead to lower residential and commercial property values, household wealth, and corporate profitability, which can create financial and credit market losses impacting insurer asset values.

Transition investment risks: These arise from society's transition towards a low-carbon economy, driven by policy and regulations, low-carbon technology advancement, and shifting sentiment and societal preferences. This transition towards renewable energy sources may lead to stranded assets in areas such as the fossil fuel and automotive industries. Further, it could result in higher infrastructure reinvestment and replacement costs and increased litigation against carbon-intensive industries. Transition risks may lead to corporate asset devaluation and lower corporate profitability, property values, and household wealth, which can create financial and credit market losses impacting insurer asset values.

3. Insurance market transition risk (medium-term)

Increased climate change-related regulations and evolving consumer preferences could change manufacturing and construction methods. As an insurer of small- and mid-sized businesses in the construction, mercantile, and manufacturing sectors, we could experience reduced demand for certain products. While we have minimal direct underwriting exposure to environmentally hazardous classes of business, changing societal preferences and climate change regulation may impact our customers.

4. Regulatory risk (medium-term)

Insurance regulations could limit our flexibility in reducing exposure to certain lines of business most vulnerable to climate change. While our Personal Lines segment represented 9% of consolidated revenues in 2022, it is subject to significant state regulation, which limits our flexibility to exit lines quickly if results meaningfully deteriorate. Risks also include potential challenges in receiving regulatory approval for adequate rate levels reflecting the actual catastrophic exposure within our products.

5. Climate change impact on frequency and severity of weather events (long-term)

The United Nation's Intergovernmental Panel on Climate Change ("IPCC") is an international body responsible for assessing climate change science. In 2021, the IPCC estimated in its "Sixth Assessment Report: Physical Science Basis" that human activities (i) have caused approximately 1.1°C of global warming to date above pre-industrial levels and (ii) this could rise to an increase between 1.2°C and 3.0°C above pre-industrial levels between 2041 and 2060. Climate change models also project significant differences in global regional warming above pre-industrial levels, depending on future levels of climate mitigation and geographic location. These global regional differences, whether attributable to nature or human activities, include increases in (i) mean temperature in most land and ocean regions, (ii) hot extremes in most inhabited regions, (iii) heavy precipitation in several regions, and (iv) the probability of drought and precipitation deficits in some regions. These temperature changes can impact weather patterns and the frequency and/or severity of catastrophes, including hurricanes, wildfires, and flooding — all of which could cause our catastrophe losses to increase relative to historical levels.

Climate Opportunities

1. Developing renewable energy production (short-term)

Selective strongly believes in a clean energy future. We built ground-mount and garage-canopy solar photovoltaic facilities at our corporate headquarters. The facilities generate approximately five million kWh of electricity annually, and we sell the related solar renewable energy credits to others. As we sell these solar renewable energy credits, our greenhouse gas ("GHG") emissions are not offset – but we produce cleaner energy for others.

2. Enhancing customer resiliency (short-term)

Helping our customers prepare for severe weather events mitigates loss activity. Examples include proactive messaging and outreach before catastrophic weather events and safety management services that help strengthen our customer relationships. We are also evaluating value-added services and technologies within our Standard Commercial Lines and Personal Lines segments to enhance customer resiliency.

3. Providing product incentives to lower carbon footprint for customers(short-term)

We recognize that customer demand for climate-friendly products and services may increase, and we see opportunities to provide these services to our customers. We describe programs we have implemented to date in the Impact of Risks and Opportunities on Businesses, Strategy, and Financial Planning section below.

4. Developing new insurance products tailored to emerging industries (medium-term)

As part of an economic transition to a low-carbon future, we expect new technologies, infrastructure, and processes to be introduced – all of which will require insurance coverage. We believe that, over time, this will present a sizeable business opportunity. In the following sections, we describe how new product development is a component of our business strategy.

5. New investment opportunities (long-term)

We believe that the transition to a low-carbon economy will provide new investment opportunities, such as green bonds or investments in energy-transition-related infrastructure instruments. These investment opportunities could increase our diversification of financial assets. As the clean energy sector grows and matures, we expect to have opportunities to invest in new assets that support the transition to a low-carbon economy.

Impact of Risks and Opportunities on Businesses, Strategy, and Financial Planning: The impact of climate-related risks and opportunities on our businesses, strategy, and financial planning.

Below we discuss the impact of climate-related risks and opportunities on our underwriting and investment segments.

Underwriting

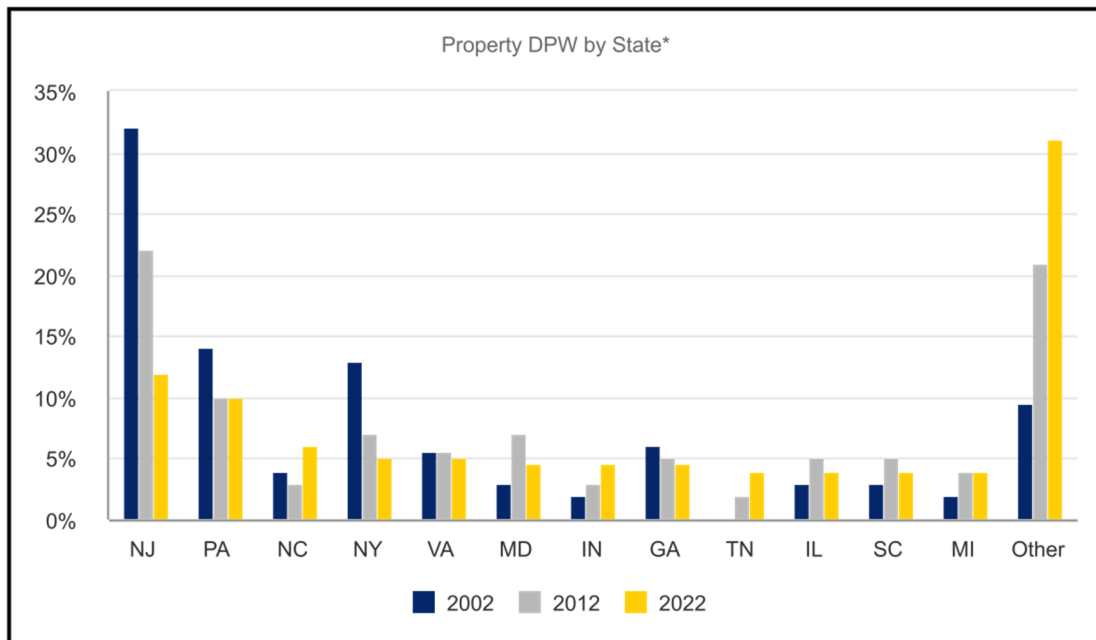
Our Underwriting operations have three segments: Standard Commercial Lines, Standard Personal Lines, and E&S. The principal impact of climate change on our business is the potential for greater frequency and/or severity of insured property catastrophic loss activity.

Catastrophe Risk Management

The ERM function models and monitors catastrophe risk, including the ongoing assessment of catastrophe risks within our pre-determined limits. Our underwriting and risk management frameworks employ risk mitigation tools, including:

1. Comprehensive underwriting standards;
2. Limits on coastal property exposure;
3. Risk-sharing through prudent reinsurance purchases;
4. Modeling and managing our catastrophe risk aggregations; and
5. Active oversight from senior management and the Board of Directors.

Due to our business risk profile and geographic concentration in the Northeast and Mid-Atlantic states, hurricane risk is our portfolio's most significant natural catastrophe peril exposure. This influenced our decision to diversify our underwriting portfolio geographically and set rigorous coastal property exposure guidelines. The following depiction of our property writings in 2002, 2012, and 2022 shows our book's geographical diversification as we have grown the business.



Excludes NFIP business and Auto

The table above illustrates results of our efforts to diversify our premium geographically. direct premiums written (“DPW”) concentration in NJ/PA/NY decreased from 59% in 2002 to 29% in 2022.

We review our hurricane risk exposure by using third-party vendor models and conducting our proprietary analysis. The third-party vendor models provide a long-term view that closely relates modeled event frequency to historical hurricane activity. However, climate change may cause hurricane frequency and severity to differ from historical levels. In the short- to medium-term, we mitigate this risk by purchasing significant reinsurance protection and setting our retained loss thresholds at levels well below the amounts we believe would cause us significant financial stress. In the medium- to longer-term, we expect to continually evolve our risk modeling and stress thresholds based on scientific and modeling advances.

We incorporate these modeled catastrophe loss expectations within our pricing plans and have underwriting guidelines reflecting our catastrophe exposure appetite. Modeled results are reported to the MSC, and impact our reinsurance purchasing and strategic growth decisions.

In addition to managing our peak hurricane exposure risk, we also seek to manage our exposures to other perils, such as severe convective storms, flooding, and wildfires. By building a geographically diverse book of business, implementing strong underwriting guidelines, conducting risk modeling, and purchasing reinsurance, we seek to manage our exposure to these types of losses.

Opportunities

In the short term, we have several initiatives aimed at helping customers lower their carbon footprint and increase their resiliency to catastrophic losses.

- We electronically disseminate proactive messages to our customers, helping them prepare for severe weather events.
- Our field-based Safety Management Specialists visit the business locations of certain current and potential commercial lines customers to conduct safety evaluations. Safety Management staff provide risk mitigation recommendations to limit potential property losses, such as from flood, wind, or fire, and improve worker safety.
- Our GreenPAC® endorsement allows Commercial Lines policyholders (within the coverage limits) to repair or replace covered loss property damage using building materials, components, products, equipment, construction and design methods, and technologies that reduce environmental impact by conserving energy, water, and other natural resources.
- We have enhanced our commercial Automobile ElitePAC coverage form to include a green automobile replacement coverage. This coverage, similar to our GreenPAC® commercial property endorsement, permits policyholders to replace their covered auto following a total loss with a hybrid or electric vehicle within the coverage limits.

- We are assessing the incorporation of value-added services within our Commercial Lines, Personal Lines, and Flood operations that will better prepare our customers for potentially heightened environmental and climate risks. We sell our Flood insurance product through the NFIP's WYO program, under which we service policies 100% reinsured by the federal government. Based on direct premiums written, we are the fourth-largest WYO writer.

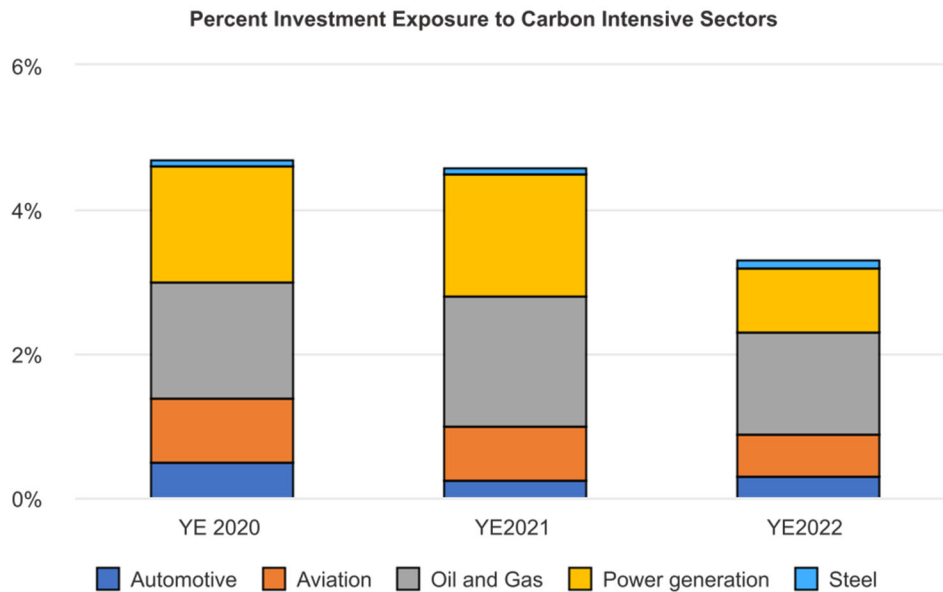
In the medium-term, we are actively evaluating modifications to our existing coverages and increasing our product suite to match our expected new areas of insurance coverage demand. As a significant writer of contractors and small manufacturing risks, we believe Selective is well-positioned to support growing market share opportunities from new low-carbon construction processes. Providing insurance capacity to renewable energy production facilities and related construction projects would be a longer-term growth opportunity.

Investments

Our investment portfolio is exposed to climate change risk through (i) direct physical loss to assets and infrastructure from catastrophic loss activity and (ii) transition risk related to technology and energy production advances that could lead to stranded assets in certain carbon-intensive sectors.

Physical risks: Our investment managers take a conservative approach when investing in commercial and residential real estate products that are potentially vulnerable to risks related to climate change. As of December 31, 2022, around 70% of our residential mortgage-backed securities were government agency backed. We generally invest in the top tranches of commercial mortgage-backed securities, with ample support to protect against losses from property value declines.

Transition risk: We also monitor our exposure to specific carbon-intensive sectors defined by the Paris Agreement Capital Transition Assessment (PACTA) as vulnerable to longer-term climate change transition risks. As of December 31, 2022, sectors we identified in our corporate fixed income portfolio as carbon-intensive represented less than 4% of our total invested assets. The identified sectors and their associated percentage of invested assets are Automotive (0.3%), Aviation (0.6%), Cement (0.0%), Coal Mining (0.0%), Oil and Gas (1.4%), Power Generation (0.9%), Shipping (0.0%), and Steel (0.1%).



The table above compares corporate fixed income portfolio Carbon Intensive Sector exposure for 2020, 2021, and 2022.

Integrating ESG into our Investment Process:

We are beginning to incorporate ESG considerations into our investment process. To establish appropriate ESG investment governance, we are working with our third-party investment managers to ensure they have ESG guidelines and protocols in their investment process while managing our mandates.

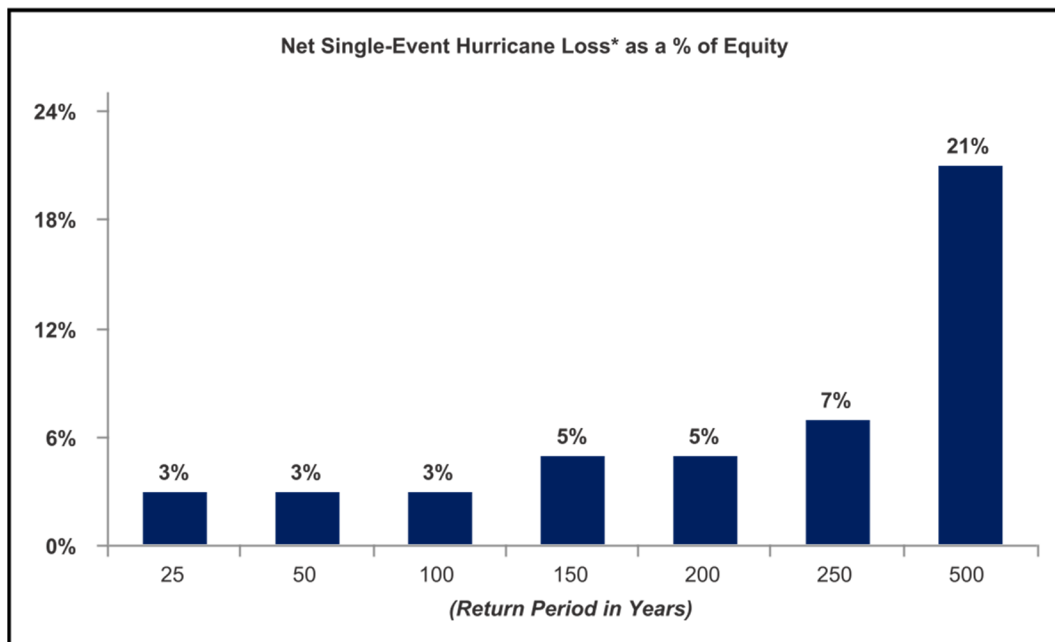
We also are not making any new direct debt or equity investments in thermal coal enterprises, including companies that generate 30% or more of (i) their revenue from the ownership, exploration, mining, or refining of thermal coal or (ii) their electricity generation from thermal coal.

Resilience of Strategy Considering Climate-Related Scenarios: The resilience of our strategy taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Evaluating perils with different return periods is crucial to identifying, assessing, and managing climate-related risks that influence our business strategy. Modeled estimates provide a range of potential outcomes. We review multiple models from various vendors over several time periods to understand our catastrophic risk, including physical risks that may materialize more frequently because of climate change. We manage our catastrophe

risk conservatively, adjusting third-party vendor models to reflect assumptions for certain un-modeled costs, such as the impact of loss expenses, residual market assessments, and automobile-related losses.

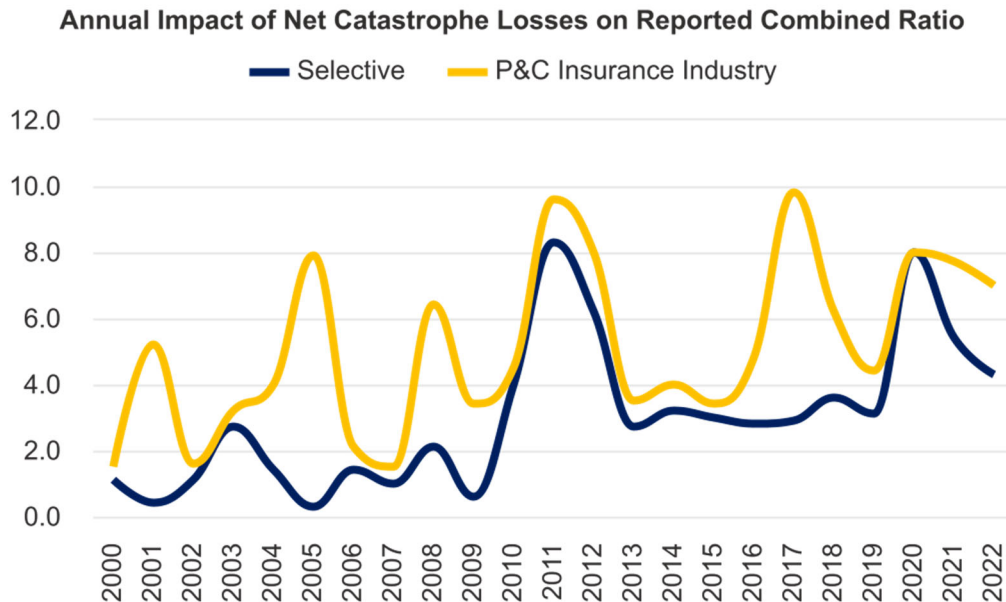
Our current catastrophe reinsurance program exhausts at approximately a 1-in-220-year return period. As of December 31, 2022, we had estimated net exposure to a 1-in-250-year (0.4% probability of exceedance) hurricane event, equal to 7% of our equity capital. Such a loss would be within our established risk tolerance and unlikely to have a material adverse effect on our financial condition.



*Single-event hurricane losses are net of reinsurance, after-tax, and reinstatement premiums as of 1/1/23. Total stockholders' equity as of 12/31/22.

We assess the resilience of our strategy to mitigate climate-related risks quantitatively, through natural catastrophe modeling, and qualitatively. Based on our assessment, we are more vulnerable to physical climate risks than transitional risks. Accordingly, more severe warming scenarios will likely increase catastrophe risk. Our main exposure to transitional risk is through our investment portfolio, where the percentage of fixed income assets invested in carbon-intensive sectors was less than 4% of total assets as of December 31, 2022.

Our mix of business and underwriting approach has historically resulted in less of an impact from catastrophe losses relative to the P&C insurance industry average (shown in the graph below). We will continue to evaluate climate scenario analysis as a tool to complement our catastrophe risk scenario analysis as industry guidance and models evolve.



Note: Catastrophe loss impact for P&C Insurance Industry based on estimates from AM Best Aggregates & Averages.

The graph above compares annual impact of net catastrophe losses on reported combined ratio for Selective to the P&C insurance industry. Selective has consistently outperformed the industry since the year 2000.

RISK MANAGEMENT

Processes for Identifying and Assessing Climate-related Risks: Our processes for identifying and assessing climate-related risks.

Selective has a robust ERM framework that includes identifying and assessing our most significant risks through a combination of quantitative analysis and metrics and qualitative assessment. Our ERM unit identifies and assesses physical and transition risks due to climate change.

Our ERM framework includes an emerging risk management component led by a designated Emerging Risk Committee. This committee is responsible for identifying and monitoring new and evolving risk issues that may significantly impact our financial strength, reputation, or long-term strategy. The Emerging Risk Committee has identified climate

change as a “high” level emerging risk, reviewing it at least quarterly with the ERC and our Boards of Directors. The ERM unit, the ERC, and other employees stay informed on key climate change risk developments through industry publications, webinars, conferences, and regular engagement with outside sources, such as our reinsurance brokers, investment managers, and trade associations.

The ERM unit evaluates our catastrophe risk exposure relative to our established tolerances. This evaluation incorporates the results of third-party vendor models and proprietary analysis in its review of exposure to hurricane and other perils on both a gross and net basis.

The table below shows the gross and net losses modeled results by peril of our underwriting property portfolio as of July 1, 2022. The table highlights hurricane peril as our most significant natural catastrophe exposure, driving the “tail” of our modeled catastrophe loss distribution.

Occurrence Exceedance Probability (Return Period)						
(\$ in millions)	Hurricane		Other Wind		Earthquake	
	Gross Loss*	Net Loss**	Gross Loss*	Net Loss**	Gross Loss*	Net Loss**
25 yr	212.3	66.7	114.1	47.8	7.7	5.5
50 yr	355.0	73.0	153.5	50.5	24.4	16.6
100 yr	575.7	83.0	206.9	52.8	72.7	43.4
200 yr	906.7	130.4	265.8	57.5	147.9	63.4
250 yr	1,041.4	171.7	295.9	58.5	187.6	63.2
500 yr	1,504.8	526.6	351.9	62.0	273.7	65.5

*Gross modeled loss before reinsurance and tax; includes assumptions for certain un-modeled costs, such as the impact of loss expenses, residual market assessments, and automobile related losses, which collectively increase our gross losses by an estimated 13%.

** Net losses are after-tax losses net of catastrophe reinsurance treaty, effective January 1, 2023, including reinstatement premiums.

We currently do not write crop insurance and have minimal exposure to private flood business. With a small Western U.S. geographic footprint, our exposures to perils, such as droughts, wildfires, and flooding, tend to be relatively modest.

On the investment side, we monitor our exposure to carbon-intensive industries to measure our vulnerability to climate-related risks from the transition to a low-carbon economy.

Processes for Managing Climate-related Risks: Our processes for managing climate-related risks.

Underwriting

In managing physical climate-related risks to our insurance business, we model our property portfolio for hurricanes and other wind events semi-annually, as of July and January. Wildfire risk, which presents significantly lower exposure for our portfolio, is modeled each July.

During late summer and fall of each year, our Reinsurance team works closely with our reinsurance broker to produce an in-depth analysis of the modeled results, which the MSC reviews. The process leading to this presentation includes the following:

- Accumulating and testing appropriate property exposure reports. Our automated systems produce these reports, and the Reinsurance team tests them for completeness and accuracy using analytical and policy sample reviews;
- Balancing data provided to the broker modeling team with the data ultimately incorporated into the model;
- Reviewing and agreeing between the Reinsurance team and the broker modeling team on modeling assumptions;
- Analyzing changes in modeled results. The Reinsurance team works with our broker to understand the drivers of the modeled result changes and confirm they are consistent with our understanding of the model updates and any exposure changes; and
- Presenting the modeling analysis to the MSC after the CRO's review.

We use various authority levels as underwriting controls for significant individual property risks and large property accounts that could create or exacerbate a property aggregation issue. If any individual location exceeds the Chief Underwriting Officer's property limit authority, the Underwriting Committee (comprised of the Standard Lines Chief Operating Officer, CFO, Commercial Lines Chief Underwriting Officer, President of E&S operations, and CRO) must approve it. When considering large property accounts, the Underwriting Committee typically reviews an evaluation of property aggregations in the particular county and state projecting the marginal impact the particular risk has on our aggregate modeled losses. The evaluation includes a discussion on our catastrophe risk aggregation appetite and appropriate pricing for assuming the increased risk aggregation.

From a gross exposure perspective, we believe we manage natural catastrophe risk by (i) establishing prudent exposure growth, (ii) monitoring actual results and property aggregations, (iii) employing appropriate underwriting authority controls for our largest accounts, and (iv) appropriately reflecting catastrophe exposure in our pricing.

Investments

Our internal investment team and external investment managers execute our investment strategy and objectives. The MIC is responsible for (i) setting and implementing the investment objectives and asset allocation, (ii) administering investment policies, (iii) selecting qualified external investment managers and advisors, and (iv) monitoring performance, transactions, and specific risk metrics, including those related to climate change.

Operational Continuity

In addition to mitigating underwriting and investment risk, we have robust plans to ensure operational continuity during unforeseen or catastrophic events. We have Business Continuity Plans for our key data processing facility (Disaster Recovery Plan), the leadership team (Executive Crisis Management Plan), and critical operational areas. We review, update, and test these plans at least annually. Testing includes “tabletop” exercises and planned hands-on tests.

Integration into Overall Risk Management: Our processes for identifying, assessing, and managing climate-related risks are integrated into our overall risk management.

Because we are in the business of assuming risk, our management of climate-related risks naturally integrates into our existing ERM framework.

We categorize our major risks into five broad categories:

1. Asset risk, which primarily stems from our investment portfolio and reinsurance recoverables, including credit and market risk;
2. Underwriting risk, or the risk our insured losses exceed our expectations, including:
 - a. Actual losses greater than our established reserves;
 - b. Larger than expected non-catastrophe current accident year losses; and
 - c. Catastrophe losses that exceed our expectations or our reinsurance treaty limits.
3. Liquidity risk, or the risk we will be unable to meet our contractual obligations as they become due because we cannot liquidate assets or obtain adequate funding without incurring unacceptable investment losses or borrowing expense;
4. Other risks, which include a broad range of operational risks, many challenging to quantify, such as talent/human capital, market conditions, economic, legal, regulatory, reputational, and strategic risks – and the risks of fraud, human failure, modeling, inadequate business continuity plans, or failure of controls or systems, including cybersecurity risk; and
5. Emerging risks, including risks in all categories that are new, rapidly evolving, or increasing substantially compared to historical levels.

The table below maps our management committees to their associated responsibilities for our five major risks.

	Major Risk Management Committees								
	Emerging Risk	MIC	MSC	Disclosure	EPMO	Reserve	Large Claims	ERC	Underwriting
Asset Risk		X	X					X	
Underwriting Risk			X			X	X	X	X
Liquidity Risk		X	X					X	
Other Risks				X	X		X	X	
Emerging Risks	X							X	

Climate-related risks can impact these risk categories in a variety of ways. For example, asset risk includes climate-related risks in our investment portfolio overseen by the MIC, and underwriting risk includes catastrophe risk overseen by the MSC.

METRICS & TARGETS

Metrics: Our metrics assess climate-related risks and opportunities in line with our strategy and risk management process.

Selective measures and reports on climate risks and opportunities in several different ways. Our chief metrics and targets are the following:

1. Probability of hurricane losses and capital exposed

Our established catastrophic risk tolerance requires that we expose no more than 10% of stockholders' equity to a hurricane loss event at a 99.6% confidence level (1-in-250 year event or 0.4% probability) on a net of reinsurance and after-tax basis. For context, the largest tropical cyclone event in Selective's history was Superstorm Sandy in 2012. On a net of reinsurance and after-tax basis, the loss from Superstorm Sandy was approximately 3% of our prior year stockholders' equity.

In addition to the 1-in-250-year modeled event, we evaluate the impact of several other scenarios on stockholders' equity. The table below projects hurricane losses, gross and net of reinsurance, from the following scenarios:

- Stochastic catastrophe modeling of our portfolio (1-in-100, 1-in-200, etc.);
- Recasts of two large hurricanes that impacted our geographic footprint:
 - 1938 New England Hurricane, one of the largest hurricanes to impact the Northeast United States; and

- Hurricane Hazel, a Category 4 storm that made landfall near the border between North Carolina and South Carolina in 1954; and
- Realistic disaster scenarios (“RDS”) for significant potential storms in the Northeast and the Carolinas based on Lloyds of London methodology:

Scenario (\$ in millions)		Gross Loss*	Net Loss**	Net Losses% of Equity***
1 in 100 year hurricane	1% probability	575,734	83,045	3%
1 in 200 year hurricane	0.5% probability	906,745	130,419	5%
1 in 250 year hurricane	0.4% probability	1,041,355	171,671	7%
1 in 500 year hurricane	0.2% probability	1,504,757	526,564	21%
1938 New England Hurricane	Historical Recast	452,577	78,011	3%
Lloyd's RDS North-East (AIR Cat 4)	Lloyd's RDS	825,960	122,269	5%
1954 Hurricane Hazel	Historical	282,257	66,903	3%
Lloyd's RDS Carolinas (AIR Cat 5)	Lloyd's RDS	483,327	78,915	3%

*Gross losses include uncertainty associated with damage/loss estimation, demand and storm surge, and assumptions for certain un-modeled costs, such as the impact of loss expenses, residual market assessments, and automobile-related losses, which collectively increase our gross losses by approximately 13%

**Net losses are after-tax losses net of catastrophe reinsurance including reinstatement premiums based on the treaty structure effective January 1, 2023

***Stockholders' equity as of December 31, 2022

We are within our established catastrophic risk tolerance as the above table reflects.

2. Capital allocation away from specifically environmentally hazardous classes of business

Included below are targets and objectives that we have established for our Underwriting and Investments segments:

- We do not underwrite specific environmentally hazardous risks related to production from coal mines, thermal coal plants, or oil sands extraction.
- We do not invest in any new direct debt or equity of companies generating more than 30% of their revenues from thermal coal mining or electricity produced from coal.

Greenhouse Gas Emissions and Related Risks: Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and related risks.

We track our Scope 1 and Scope 2 greenhouse gas (“GHG”) emissions, but we are a low greenhouse gas emitter relative to entities in many other industries because we are an insurance holding company. Our Scope 1 emissions include consumption of natural gas,

diesel, refrigerant, and the fuel employees use for work travel in company cars. Our Scope 2 emissions consist of our electricity usage.

The table below summarizes our Scope 1 and 2 CO₂ emissions across our operations and does not include emissions from investment portfolio holdings, including limited partnerships. For 2022, our overall Scope 1 and 2 emissions are down approximately 12% compared to our 2019 baseline year. We chose 2019 as our baseline because the COVID-19 pandemic significantly reduced office occupancy in 2020 and 2021, limiting our Scope 1 and 2 CO₂ emissions.

Type (mtons CO ₂ e)	2019	2020	2021	2022
Scope 1	2,690	1,906	1,784	2,158
Scope 2*	3,527	3,317	3,270	3,335
Total Scope 1 + 2	6,217	5,223	5,054	5,493

*Location-based method.

Since 2019, we have expanded our Commercial Lines footprint by three states, increased employee count by approximately 5%, and grown net premiums written at a 10% compound annual rate. Despite our continued growth, emissions remain below our 2019 reported baseline year.

To help calculate our GHG emissions, we engaged a third-party multinational engineering firm specializing in energy management. Our 2019-2022 GHG inventory is consistent with the principles and guidance of the World Resources Institute (WRI) and the World Business Council for Sustainable Development's (WBCSD) Greenhouse Gas Protocol Initiative (GHG Protocol).

Our only owned office location is our approximately 300,000 square foot headquarters in Branchville, New Jersey, where we directly measure our GHG emissions. We lease 20 other office locations (approximately 275,000 square feet), and we estimate these locations' GHG emissions based on square foot occupancy. While we generate approximately five million kWh of solar energy annually at our Branchville location, we sell the renewable energy credits to others, which does not reduce our GHG emissions.

Targets: The targets we use to manage climate-related risks and opportunities and performance against targets.

We expect to continue to reduce our carbon emissions over the long term, and we have initiatives expected to similarly reduce GHG emissions. Some include:

- Upgrading our corporate headquarters building management system, which should reduce heating and cooling natural gas consumption;

- Making efforts to transition our fleet from gasoline to hybrid vehicles;
- Recent LED conversion of all corporate headquarters light bulbs;
- Hybrid work schedule going forward; and
- Migrating our information technology systems to the cloud.

We have also implemented additional initiatives at our corporate headquarters to lower our environmental impact, including:

- Enhanced waste management and recycling;
- Re-purposing commingled recyclables;
- Installed electric vehicle charging stations for employee use;
- Eliminating Styrofoam products in our cafeteria;
- Recycling and more efficient energy use of electronic equipment; and
- Reducing our water usage through automatic plumbing features.

Important Legal Information

Certain statements in this report, including information incorporated by reference, are “forward-looking statements” defined in the Private Securities Litigation Reform Act of 1995 (“PSLRA”). The PSLRA provides a forward-looking statement safe harbor under the Securities Act of 1933 and the Securities Exchange Act of 1934. These statements discuss to our intentions, beliefs, projections, estimations, or forecasts of future events and financial performance. They involve known and unknown risks, uncertainties, and other factors that may cause our or our industry’s actual results, activity levels, or performance to materially differ from those in or implied by the forward-looking statements. In some cases, forward-looking statements include the words “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “target,” “project,” “intend,” “believe,” “estimate,” “predict,” “potential,” “pro forma,” “seek,” “likely,” “continue,” or comparable terms. Our forward-looking statements are only predictions, and we cannot guarantee or assure that such expectations will prove correct. We undertake no obligation to publicly update or revise any forward-looking statements for any reason.

As with any projections or estimates, actual results or numbers may vary. Factors that could cause our actual results to differ materially from what we project, forecast, or estimate in forward-looking statements are discussed in further detail in Item 1A. “Risk Factors.” in our Annual Report on Form 10-K for the year ended December 31, 2022 filed with the Securities and Exchange Commission. These risk factors may not be exhaustive. We operate in a constantly changing business environment, and new risk factors may emerge at any time. We can neither predict these new risk factors nor assess their impact, if any, on our businesses or the extent any new factor or combination of factors may cause actual results to differ materially from any forward-looking statements. Given these risks, uncertainties, and assumptions, the forward-looking events we discuss in this report might not occur.

The actual conduct of our activities, including the development, implementation, or continuation of any program, policy, or initiative discussed or forecasted in this report, may differ materially in the future. This report covers our owned and operated businesses and does not address the performance or operations of our suppliers, contractors, and partners unless otherwise noted.

Many of the standards and metrics used in this report continue to evolve and are based on management assumptions believed to be reasonable at the time of preparation but should not be considered guarantees. The statements of intention in this report speak only as of the date of this report. We undertake no obligation to update publicly any statements in this report.

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