

TO: Jennifer Cook, NAIC Staff Support, Life Insurance and Annuities Illustrations Working Group

FROM: NAIC Consumer Representatives Brenda Cude, Bonnie Burns, Brendan Bridgeland, Ken Klein, Erica Eversman, and Interested Party Birny Birnbaum

RE: Call for High Level Comments Regarding the Working Group's Future Directions

DATE: March 17, 2026

We appreciate the opportunity to comment on the Life Insurance and Annuities Illustrations Working Group's future directions. We have long been frustrated by the inadequacies of these illustrations.

Our comments, in the attachments listed below, address a number of issues.

- A recommendation that the Working Group's work take into consideration the knowledge gained from research about consumers and annuities (Best Practices for Annuity Disclosures, prepared by Brenda Cude)
- A call for the Working Group to address the many issues associated with the lack of guidance for disclosures related to long-term care benefits in life insurance and annuity benefits and riders (Life Insurance and Annuity Disclosures Must Address Long-Term Care Insurance Benefits, prepared by Bonnie Burns)
- A reminder that while financial literacy is helpful to any consumer making an insurance decision, clear and relevant illustrations are still necessary. (PowerPoint: Consumer Financial Literacy vs. Illustrations for Life Insurance and Annuities, prepared by Brenda Cude and Birny Birnbaum)
- Re-Engineering Life and Annuity Illustrations and Disclosures for Consumer Protection and Fair Competition Life Insurance and Annuities and supporting attachments – prepared by Birny Birnbaum). Specific recommendations include:
  - Re-engineer illustrations regulations for a consistent approach for indexed annuities and life insurance.
  - Stop the incentives for illustration/unrealistic accumulation competition. Eliminate hypothetical historical results and projections of non-guaranteed outcomes – these two actions will also eliminate insurance producers acting as financial planners without the training or qualifications to do so.
  - Improve the content and presentation. Use consumer testing to provide simplified information about product fees and performance, such as how frequently and by how much the insurer changes product features.

## Best Practices for Annuity Disclosures

Brenda J. Cude, Professor Emerita, University of Georgia  
NAIC Consumer Representative  
March 2026

Annuity disclosure design should be grounded in research-based knowledge about what consumers care about when choosing among annuities. What follows is a very high-level summary of existing research and its implications for annuity design. Please note that another important element of developing disclosures is testing them with consumers to confirm that the disclosure meets their needs with a minimum of confusion.

Several themes show up consistently across behavioral, marketing, and retirement-income studies.

<b>What Consumers Want to Know about Annuities</b>	<b>Implication for Disclosure Design</b>
<p>Monthly Income Amount</p> <p>Across stated-preference studies, the <i>size and stability</i> of the monthly payout is the single strongest driver of choice. Consumers anchor on the guaranteed income stream and compare it to self-managing their investments.</p> <p>The size and stability of the monthly payout must be clearly and carefully stated and cannot be subject to misinterpretation. This information is among the most important in an annuity disclosure.</p> <p>Reference: <a href="#">Shu Zeithammer Payne annuity preferences.pdf</a></p>	<p>In their research specific to immediate annuities, the authors state, “We find that consumers who see only basic attribute information undervalue annual increases, and show a stronger preference for fixed annual increases relative to percentage increases, holding the expected payout constant. However, consumers who also see a table with contingent cumulative payoffs implied by the attributes do not exhibit either of these effects: they value increases approximately correctly, and do not care whether the increases are expressed in the form of percentages or dollars.” “We find that regardless of the information presentation, consumers overvalue “middle-length” (10-</p>

	<p>year and 20-year) period-certain guarantees, and undervalue very short and very long guarantees. Interestingly, having no period certain guarantee is consistently preferred to short (5-year) guarantees.”</p>
<p><b>Inflation Protection</b>          People value inflation adjustments but often underestimate their long-term importance. Research shows that inflation riders increase perceived value, though not as strongly as payout size.  <a href="#">ConsumerPreferencesforAnnuityAttributes-compressed.pdf</a></p>	<p>In their research, the authors state, “when annuities are represented only through basic attributes, consumers undervalue inflation protection, and preferences are not monotonically increasing in duration of period certain guarantees. When descriptions of annuities are enriched with cumulative payment information, consumers no longer undervalue inflation protection, but nonlinear preferences for period certain options remain.”</p>
<p><b>Period-Certain Guarantees</b>          Consumers dislike the idea of “losing” money if they die early. Guarantees (e.g., 10- or 20-year certain periods) significantly increase willingness to buy.  <a href="#">ConsumerPreferencesforAnnuityAttributes-compressed.pdf</a></p>	<p>It is very important that any guarantees be stated clearly and that statements are not misleading and do not misrepresent what the consumer can expect.</p>
<p><b>Company Rating / Insurer Strength</b>          Trust in the issuing company is a major factor. Higher-rated insurers increase purchase likelihood, especially among risk-averse consumers.  <a href="#">Shu Zeithammer Payne annuity preferences.pdf</a></p>	<p>Company financial ratings should be stated and their meaning explained. The authors state, ““Company financial strength rating is also important to consumers, with AAA rated companies leading to significantly</p>

	higher preferences than those with only an AA rating.”
<p>Liquidity Concerns</p> <p>Many consumers avoid annuities because they fear “locking up” their money. Interestingly, recent research finds that lack of liquidity <i>does not fully explain</i> low take-up — people often misunderstand how annuities work.</p> <p><a href="#">RII-LitReview-Annuities_WhosCupofTea_Liu.pdf</a></p>	<p>Insurance regulators must continue to partner with those leading financial literacy efforts, to shore up basic financial knowledge. In addition, it is exceedingly important that we develop (alone or in partnership with others) clear explanations of what annuities are and how they work, which becomes far more difficult when complex annuity designs are approved for sale.</p>
<p>Trust and Simplicity</p> <p>Complexity reduces purchase likelihood.</p> <ul style="list-style-type: none"> <li>• Consumers prefer simpler products with fewer moving parts.</li> <li>• Confusion about fees, riders, and payout rules is a major deterrent.</li> </ul> <p><a href="#">RII-LitReview-Annuities_WhosCupofTea_Liu.pdf</a></p>	<p>Discouraging complex annuity designs is in the consumers’ best interest.</p>

**Influences on How Consumers Understand Annuity Disclosures**

**Financial Literacy & Understanding**

A major barrier is simply confusion. Many consumers do not understand:

- How annuities are priced
- How lifetime income works
- How to compare products

Low literacy and declining numeracy with age amplify this barrier.

[RII-LitReview-Annuities\\_WhosCupofTea\\_Liu.pdf](#)

**Behavioral Biases**

Research highlights several predictable biases:

- **Loss aversion** (fear of dying early and “losing” the premium)
- **Complexity aversion** (too many product features)
- **Present bias** (preferring liquidity now over future income)
- **Framing effects** (people prefer “income” framing over “investment” framing)

[Behavioral Obstacles in the Annuity Market](#)

[Behavioral Impediments to Valuing Annuities: Evidence on the Effects of Complexity and Choice Bracketing](#)

Personality influences annuity adoption:

- **Conscientiousness** → more likely to buy
- **Openness, extraversion, neuroticism** → less likely These findings come from HRS-based regression studies.

[Personality Traits and Annuity Adoption: Unlocking Behavioral Insights of Retirement Income Strategies | Financial Planning Association](#)

## 9. Demographic & Economic Factors

Demand varies by:

- age
- wealth
- risk tolerance
- marital status
- health expectations

These factors shape how valuable lifetime income feels.

[What Matters for Annuity Demand: Objective Life Expectancy or Subjective Survival Pessimism? – Center for Retirement Research](#)

[RII-LitReview-Annuities\\_WhosCupofTea\\_Liu.pdf](#)

[RP-19\\_Morales\\_v6.pdf](#)

[Microsoft Word - Which Consumers Like Annuities final.docx](#)

## **High-Level Takeaway**

Consumers care most about **income amount, trust in the insurer, guarantees, and simplicity**. I hope we can keep that in mind as we think about annuity disclosures.

## **Life Insurance and Annuity Disclosures Must Address Long-Term Care Insurance Benefits**

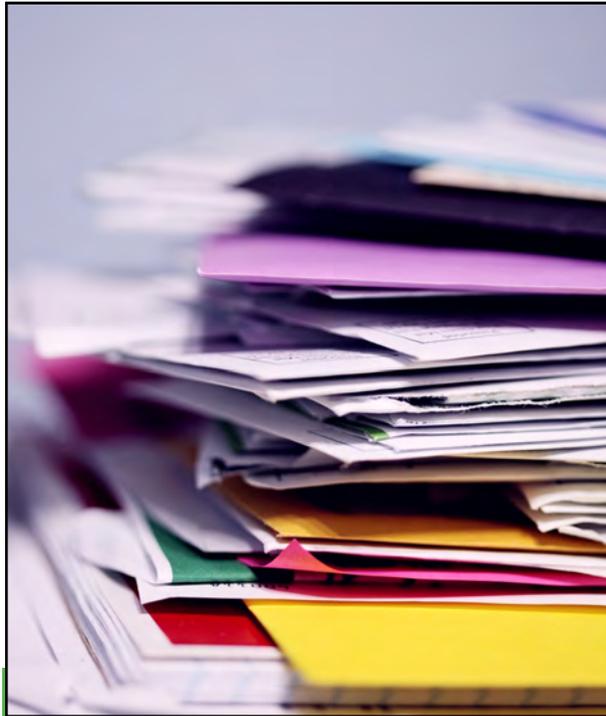
Bonnie Burns, NAIC Consumer Representative  
March 2026

Today a large and growing share of long-term care insurance (LTCI) coverage comes from accelerated death benefits or LTC benefit riders attached to life insurance and annuity products. These newer products are variously described as “hybrid,” “combo,” “asset-based,” or “life-LTC.” There is no single term to describe these products, and that alone adds to consumer confusion. Further, there are multiple life insurance configurations, some with investment options designed to increase benefits. Regardless of how the underlying insurance is structured, the riders that can be attached are equally confusing and can include accelerated death benefits, extension-of-benefits, critical illness, and LTC riders. Consumers face a maze of choices when they are told these products will help pay for care, and it is easy to misunderstand what they are actually buying.

Many of the new LTC offerings are complex financial products that combine LTC benefits with a life-based or annuity contract and are not a traditional standalone LTC policies. Many core model provisions—definitions, disclosures, rate rules, nonforfeiture, contingent benefit on lapse—were drafted with a pure LTC chassis in mind, not a life policy with an accelerated death benefit, extension-of-benefits rider, or critical illness rider. Asset-based products linked to LTC benefits are exceedingly complex, vary widely in design and benefit payment, and can fit awkwardly—or not at all—under the current requirements. Some may well escape meaningful LTC oversight entirely

There appears to be no mention the NAIC’s Life Insurance Illustrations Model Regulation of long-term care benefits or riders. The only mention in the Annuity Disclosure Model Regulation is in Section 6 B h, which indicates merely that “At a minimum, the following information shall be included in the disclosure document required to be provided under this regulation: Impact of any rider, including, but not limited to, a guaranteed living benefit or long term care rider.” This vague statement provides companies very large leeway in determining what to disclose and how to disclose it.

We ask that the Life Insurance and Annuities Working Group consider the impact of life and annuity LTC riders or benefits in its work.



## Consumer Financial Literacy vs. Illustrations for Life Insurance and Annuities

### NAIC (A) Life Insurance and Annuities Committee

**Birny Birnbaum**

NAIC Consumer Representative  
Center for Economic Justice

**Brenda J. Cude, PhD**

NAIC Consumer Representative  
University of Georgia

December 2023

## Resources for Regulators

- Examples of illustrations for indexed life insurance and annuity products;
- A study, referenced in the presentation, from Australian Securities and Insurance Commission and the Dutch Authority for Financial Markets regarding consumer protection and complex financial products.
- *Life Products Review 375: Engineered Indices and Fixed Indexed Annuities*
- Concepts for Consumer Testing of Re-engineered Illustrations from the Center for Economic Justice



## Financial Literacy

- Financial literacy is what people
  - Think,
  - Know, and
  - Do about money
- Supports financial life goals
- Makes people less vulnerable to fraud and deception

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## Consumers are NOT financially knowledgeable

- Worldwide, just one in three consumers are financially literate
- In the U.S, just 55% are financially literate

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Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

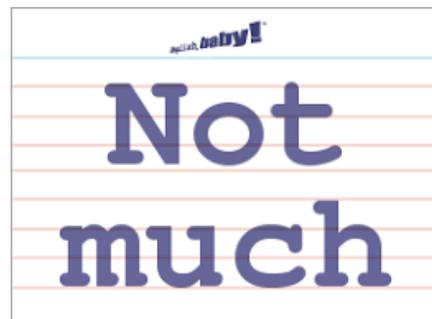
- A) More than \$102
- B) Exactly \$102
- C) Less than \$102
- D) Don't know
- E) Prefer not to say

### How is financial knowledge assessed?

- Usually multiple choice or true/false questions about basic concepts
  - Inflation
  - Compound interest
  - Risk diversification

	Gen Z	Baby Boomers	Silent Generation
Borrowing	47%	64%	61%
Saving	47%	59%	58%
Investing	33%	49%	50%
Insuring	26%	50%	55%
Comprehending risk	32%	36%	36%

### What do consumers know about investing, insurance, assessing risk?





## Why aren't people more financially literate?

- It isn't taught or isn't taught effectively or taught when the content is relevant
- Products are complex and making decisions about them is complex
- It's hard to sort through misleading, deceptive, and irrelevant information
- Cognitive biases lead people, even those who are financially literate, to make poor choices

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## Disclosures Cannot Replace Other Market Regulation

- Disclosures are appropriate only when the problem is information asymmetry
- Disclosures may not improve consumer decision-making and can even backfire
- Disclosures can place an unfair burden on consumers
- Real-world testing and monitoring are necessary to ensure success

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## Limitations of Disclosures to Empower Consumers

“Disclosure: Why It Shouldn’t Be the Default” – a report by ASIC and AFN – the Australian and Dutch Financial Service Regulators:

“Financial services disclosure has traditionally been assumed to inform us (as consumers), help us make ‘good’ financial decisions, and drive competition.

“This report focuses on the real-world context in which disclosure operates. It shows that, and explains why, disclosure and warnings can be less effective than expected, or even ineffective, in influencing consumer behaviour. In some instances it shows that disclosure and warnings can backfire, contributing to consumer harm.”

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## The Challenge of Retirement Security

- Balancing current and future needs
- Assessing unknown future needs
- Assessing risk tolerance and unknown future risks
- Identifying ways to meet goals and trusted professionals who can help
- Sorting through information vs. marketing
- And often without the security of an employer pension

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## NAIC Illustration Model Regulations

- “The purpose of [the Life Insurance Illustrations Model Regulation] is to provide rules for life insurance policy **illustrations** that will **protect consumers and foster consumer education**. . . . The goals of this regulation are to ensure that illustrations **do not mislead** purchasers of life insurance and to **make illustrations more understandable**. Insurers will, as far as possible, eliminate the use of footnotes and caveats and define terms used in the illustration **in language that would be understood by a typical person** within the segment of the public to which the illustration is directed.”
- “The purpose of [the Annuity Disclosure Model Regulation] is to provide standards for the **disclosure of certain minimum information** about annuity contracts to **protect consumers and foster consumer education**. . . . The goal of this regulation is to ensure that purchasers of annuity **contracts understand certain basic features** of annuity contracts.”

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Think	Know	Do
<b>Important to plan for the future</b>	What is annuity What is indexed annuity How to get income When to get income What an index is How indices are different	<b>Find a trusted advisor</b>
<b>Indexed annuity is good choice</b>	How much I need to buy one What are the fees What is guaranteed What are the risks What is the surrender period	<b>Determine how annuity fits plan</b>
<b>Worth it to give up time &amp; money now</b>	Potential for return Accumulation period Other options? How choices affect fees, returns, etc. What is prospectus What is illustration	<b>Commit to future</b>

### To use a complicated product like an illustration

- Consumers need
  - Literacy
  - Financial knowledge
  - Numeracy
  - Document literacy

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## Examples of Illustrations

Attached are examples of four illustrations for fixed indexed annuities – how well do they meet the purposes and goals of the illustrations models?

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## Cognitive Biases and Risk Assessment

Introduced by Twersky and Kahneman in 1972, cognitive biases describe systematic errors in thinking that affect decisions and judgments. Bias examples include Anchoring, Attentional, Availability, Confirmation and Overconfidence Biases.

Howard Kunreuther studied behavioral biases in risk assessment, including Myopia, Amnesia, Optimism, Inertia, Simplification and Herding.

Some cognitive biases make consumer particularly susceptible to unrealistic or deceptive illustrations.

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## Deceptive and Misleading Presentation

“FIA illustrations operate under the same basic illustration framework as Indexed UL. Both use a hypothetical historical lookback methodology that applies currently declared “interest crediting adjustments” to historical index return data.

“The fundamental problem with this hypothetical lookback methodology is that it can be easily gamed because the data is already known. All you have to do is optimize an index or a crediting strategy to back-fit the data if you want to increase illustrated performance.

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## Deceptive and Misleading Presentation

“Life insurers have become exceedingly adept at maximizing illustrated performance in their FIA products using engineered indices. There are now 165+ engineered indices in market that permeate virtually every FIA product. . . . the chief attraction for engineered indices is that they deliver the holy grail of indexed crediting - cheap options and high backtested performance. Put those two things together and you get 100%+ participation rates and colossal illustrated performance. It’s the stuff sales people dream of.

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## Deceptive and Misleading Presentation

The combination of engineered indices, multi-year crediting strategies and fee-for-rate designs have pushed illustrated returns on FIAs into the stratosphere. There are around 550 accounts available in FIA products that illustrate more than 10%.”

*See the chart on page 3 of “Engineered Indexes and FIAs” showing illustration annual crediting rates of 14% to 33% for the majority of top FIA writers.*

See page 7 of ACL Accumulation Protector Plus illustration example – a \$100,000 premium grows to \$877,000 index account value in ten years – compounded average annual returns of 24.2%

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## Deceptive and Misleading Presentation

- As high as those average returns are, the more insidious problem with the best/worst/most recent 10 year illustration construct is what happens on the worst-10 side of the ledger. Engineered indices are optimized to deliver not just lights-out illustrated performance from the most recent 10 year period but also to maintain high returns in the worst-10 scenario. . . . Carriers, agents and distributors play this up as a “can’t lose” sort of situation where the “worst case” scenario is still double-digit returns. That is a fundamentally misleading characterization that, in my experience, seems to sometimes be a key part of the sales process.

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## The Path Forward

Re-engineer illustrations regulations for a consistent approach for indexed annuities and life insurance:

Stop the incentives for illustration / unrealistic accumulation competition:  
Eliminate hypothetical historical results and projections of non-guaranteed outcomes – these two actions will also eliminate insurance producers acting as financial planners without the training or qualifications to do so.

Improve the content and presentation: Use consumer testing to provide simplified information about product fees and performance, such as how frequently and by how much the insurer changes product features

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## How can illustrations be useful?



- Use a consumer decision-making design focus
- Use iterative consumer testing

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## Questions? Reach out

### **Birny Birnbaum**

NAIC Consumer Representative  
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### **Brenda J. Cude, PhD**

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University of Georgia



**Re-Engineering Life and Annuity Illustrations and Disclosures for  
Consumer Protection and Fair Competition**

**December 3, 2023**

Birny Birnbaum  
Center for Economic Justice

## **NAIC Models Related to Life and Annuity Illustrations and Marketing**

The NAIC has several model regulations and actuarial guidelines regarding life and annuity illustrations, disclosures and advertising.

### ***NAIC Life Insurance Illustrations Model Regulation***

Purpose: The purpose of this regulation is to provide rules for life insurance policy illustrations that will protect consumers and foster consumer education.

The goals of this regulation are to ensure that illustrations do not mislead purchasers of life insurance and to make illustrations more understandable. Insurers will, as far as possible, eliminate the use of footnotes and caveats and define terms used in the illustration in language that would be understood by a typical person within the segment of the public to which the illustration is directed.

## **NAIC Life Insurance Disclosure Model Regulation**

Purpose: The purpose of this regulation is to require insurers to deliver to purchasers of life insurance information that will improve the buyer's ability to select the most appropriate plan of life insurance for the buyer's needs and improve the buyer's understanding of the basic features of the policy that has been purchased or is under consideration.

## **NAIC Annuity Disclosure Model Regulation**

Purpose: The purpose of this regulation is to provide standards for the disclosure of certain minimum information about annuity contracts to protect consumers and foster consumer education.

The goal of this regulation is to ensure that purchasers of annuity contracts understand certain basic features of annuity contracts.

## **Advertisements of Life Insurance and Annuities Model Regulation**

Purpose: The purpose of this regulation is to set forth minimum standards and guidelines to assure a full and truthful disclosure to the public of all material and relevant information in the advertising of life insurance policies and annuity contracts.

### **Actuarial Guidelines 49, 49A and 49B for Indexed Universal Life illustrations.**

Provides guidance in determining the maximum crediting rate for the illustrated scale and the earned interest rate for the disciplined current scale.

Limits the policy loan leverage shown in an illustration.

Requires additional consumer information (side-by-side illustration and additional disclosures) that will aid in consumer understanding.

## **Current Insurer Marketing and Illustration of Indexed Life and Annuities Fails to Meet the Purposes of These Models**

Illustrations obscure, instead of explain, the operation of the policy or contract.

Illustrations and advertisements present misleading information about risk and return.

Illustrations create unrealistic expectations for consumers about policy accumulation values.

Products and related illustrations are relying more and more on the use of custom indexes produced by data mining historical results resulting in:

- Backtesting, not permitted for any other type of investment product, based on hypothetical results before the index was created; and
- Conflicts of interest created when the provider of the index is also providing the hedging program to support the insurers' products.

## **Current Insurer Marketing and Illustration of Investment-Type Life and Annuities Fails to Meet the Purposes of These Models**

Competition among insurers is focused on product design to game illustration rules, instead of competition to provide consumer value and understanding

Projections, not permitted for any other type of investment product, for 20, 30, 40 and 50 years showing constant annual returns

Misleading premium financed product illustrations showing riskless arbitrage

Annual rates of return untethered to actual market conditions

Producers acting as de facto financial planners.

**Bottom Line: Setting unrealistic expectations, ensuring future consumer complaints and lawsuits and creating retirement insecurity.**

## Illustration Re-engineering Concepts

### The Illustration

Simpler Explanation about How the Product Operates

Apples to Apples Comparison of Product Accumulation with Alternative Investments

Show Insurer Performance for Key Product Features like Changes in Caps/Floors and Expense Features

Show the Cost and Value of Insurance

Show Meaningful Measures of Risk and Return

Set Realistic Expectations for Policyholders

## **Illustration Re-engineering Concepts**

### Consumer Protections and Fair Competition

Prohibit Hypothetical Index History / Results for Illustrations

Prohibit Hypothetical Future Accumulation

Discourage Illustration Competition / Product Design to Juice Illustrations

Prohibit Index Providers from Providing the Hedging Program to Support the Product Using That Index.

Prohibit Indexes That Are Not Transparent and Allow the Consumer to Independently Verify the Stated Results.

Create Consistent Illustration Requirements for Indexed Annuities and Life Insurance

Provide Buyer's Guide and Policy Overview Prior to Purchase

# Illustration Re-engineering Concepts – Consumer-Testing Needed!

## Simpler Explanation of How the Product Operates

### ***[Product Name]: How Your Account Value Changes for One Period***

<b>Show in Account Value</b>	Index Increases by 3%	Index Increases by 15%	Index Stays the Same – 0% Change	Index Decreases by 3%	Index Decreases by 15%
Product Value at Start of Period					
Change in Value from Changes in Index Inclusive of All Policy Features					
Change in Value from Policy Fees or Any Charges					
Product Value at End of Period					

## How is the Change in Account Value Calculated?

Show steps in similar table showing participation rates, multipliers, caps and every other product feature affecting account value calculation.

### ***[Product Name]: How Your Account Value Changes – Part 2***

<b>Show in Cumulative Percentage Change</b>	Index Increases by 3%	Index Increases by 15%	Index Stays the Same – 0% Change	Index Decreases by 3%	Index Decreases by 15%
Change in Value from Changes in Index					
Policy Feature 1 (Cap/Floor)					
Policy Feature 2 (Participation Rate)					
Policy Feature 3 (Multiplier/Bonus)					
Policy Feature 4					
Policy Feature 5					
Change in Value from Policy Fees or Any Charges					
Total Change in Product Value at End of Period					

## **Show Meaningful Measures of Risk and Return**

The changes in your product's account value are tied to changes in [name of index].

[Name of index] has been in existence for [X] years.

Over the past [X] years, here are some best and worst performance information about your index and a comparison to the S&P 500 (with and without dividends). The S&P 500 is provided for comparison because it is the most common measure of the returns of a diversified stock market investment and has been in existence for a long time.

The comparison to the S&P 500 results shows you the value of the insurance you are purchasing. An investment in the S&P 500 is risky because you are exposed to all the gains or losses of the "market." Your insurance product may provide protection against some or all of the losses if the "market" declines, as well as other benefits.

No comparison is perfect. Insurance products may have tax advantages that are significant for you.

Past performance is not a guaranty of future outcomes.

**Historical Performance of [Name of Product Index/Investment/Dividend] and Product] and [Name of Index]**

	[Name of Index / Investment]	[Name of Product] including policy features, fees and charges	S&P 500 excluding dividends (1970-2019)	S&P500 including dividends (1970 – 2019)
Worst 1 year			-38.5%	-37.0%
Best 1 year			34.1%	37.6%
Worst 5 Year			-5.73%	-2.35%
Best 5 Year			26.18%	28.56%
Worst 10 Year			-3.04%	-1.38%
Best 10 Year			16.04%	19.21%

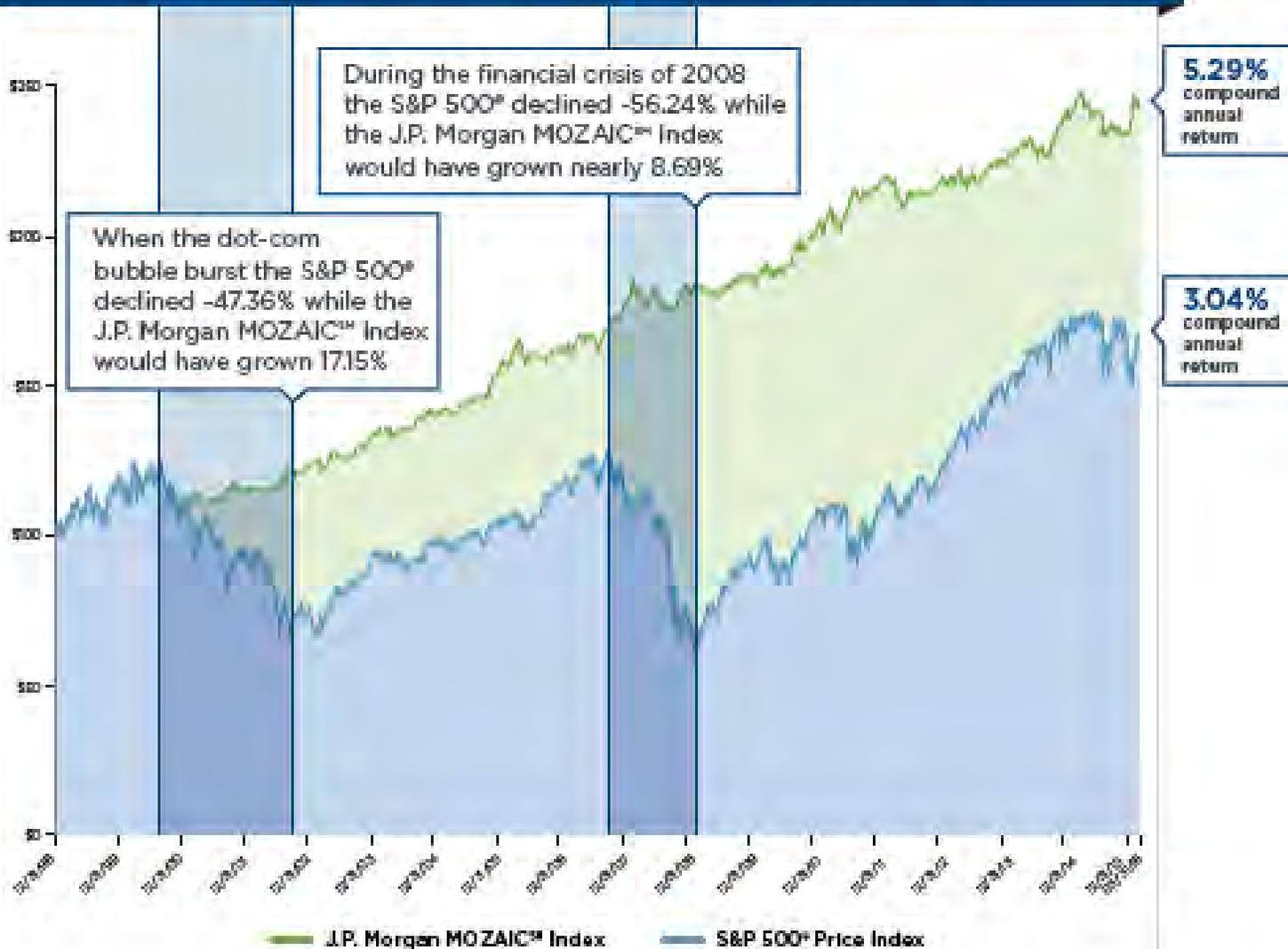
## **Apples to Apples Comparisons**

### **Show the Cost and Value of Insurance**

Why is this chart, taken from an insurer's marketing materials, misleading and deceptive?

It compares the performance of an index to only one part of an investment in the S&P 500 – it omits the dividends (a significant part of investment return) obtained by investing in an actual index fund.

## J.P. Morgan MOZAIC<sup>SM</sup> Index vs S&P 500<sup>®</sup> Price Index



## Cost and Value of Insurance

***Compared to investing directly in the S&P 500 or the securities that comprise the [Name of Index / Investment], your insurance product offers the following benefits:***

[List benefits – Protection against loss when the market or investments go down, tax advantages, death benefit, etc.]

***The cost of these insurance benefits is:***

[X% of the return from directly investing in the securities that comprise the [Name of Index / Investment]

[\$Y and/or Z% in annual charges]

[Charges for withdrawing more than A% annually for B years]

[Other costs/charges]

## Provide Key Insurer Performance Information

With most indexed insurance products, the insurer retains the right to modify the cap on returns and expense provisions. In some cases, the insurer retains the right to modify the floor.

Illustration requirements should include a history of changes in key product features for all indexed products offered by the insurer over the past 20 years:

- Number of indexed products offered with changeable caps, floors or expense provisions
- Number of reductions in caps
- Number of increases in caps
- Number of increases in expense provisions or cost of insurance
- Add measures of size (e.g., median amount) time frames of changes



PRODUCT ANALYTICS | #375 | ENGINEERED INDICES & FIA

PRODUCT ANALYTICS

# #375 | Engineered Indices & FIA

BY BOBBY SAMUELSON | SEPTEMBER 11, 2023



## Quick Take

The worlds of Indexed UL and Fixed Indexed Annuities are increasingly converging and

with profound potential implications for IUL. All of the tactics that have been used in Indexed UL to massively increase illustrated performance and subsequently curtailed by regulation – multi-year crediting, exotic crediting strategies, buy-up caps/multipliers and now engineered indices – now permeate the FIA market. There are currently more than 550 accounts in FIA that illustrate annualized returns of more than 10% with more than a hundred breaking 15%. To make matters worse, some of those returns are being illustrated as a way to augment illustrated guaranteed income to double-digit IRRs. And it's not a matter of just a few insurers illustrating aggressively. Of the top 20 sellers of FIA in the independent channel, only one – MassMutual Ascend – has a maximum illustrated rate less than 10% and just two reach their maximum illustrated rate without using engineered indices. The potential for significant litigation and regulatory blowback in FIA is real – and it would be a mistake to assume that what comes for FIA won't also come for Indexed UL.

## Full Article

If you've been even casually watching the Indexed UL landscape over the past 5 years or so, then you're probably well aware of the fact that engineered indices have come to play an increasingly pivotal role how Indexed UL products are illustrated and sold. The story of the index is becoming *almost* as important as the story of the product itself. The illustrated performance of these indices is driving larger allocations to them and life insurers are incredibly reliant on those allocations for overall profitability. It feels as though Indexed UL has entered a new phase that is distinctly different from what came before and not entirely good for the industry. And if that's concerning to you and you feel like things are getting a little bit out of hand in Indexed UL, then buckle up. You ain't seen nothing yet.

In terms of crediting mechanics, Indexed UL and Fixed Indexed Annuities (FIA) are identical. Both offer crediting based on the performance of an external index with a guaranteed minimum floor and a non-guaranteed cap, participation rate or spread (all of which we'll generically refer to as "participation limits.") Any differences in crediting between the two products are stylistic, not structural. The only structural difference between the two products is the fact that Indexed UL has monthly policy charges and FIA generally does not. As a result, the maxim in indexed insurance products of "downside protection with upside potential" applies only to the crediting performance of Indexed UL but it applies to actual total performance of FIA\*.

The other key difference between the two products is the way that they are illustrated. Fixed life insurance illustrations are governed by the Illustration Model Regulation and, in the case of Indexed UL, AG 49. The presence of the Illustration Model Regulation and subsequently AG 49, AG 49-A and AG 49-B has undoubtedly constrained what might otherwise have been illustrated in Indexed UL. Whether these rules have constrained illustrations *enough* is a separate debate. But imagine a world where these regulations don't exist. Imagine what would happen if life insurers could illustrate whatever they wanted, regardless of whether they themselves even thought the results were supportable, with essentially no regulatory recourse? It would be chaos. And that's more or less the situation in Fixed Indexed Annuities.

There is no Illustration Model Regulation in FIAs. Instead, the vehicle that regulators have to dictate what happens on an FIA illustration is the Annuity Disclosure Model Regulation which, unlike the Illustration Model Regulation in life insurance, has not been universally adopted by the states and is generally seen as something of a weak regulation. In the Disclosure Reg, there is a section that deals specifically with how to illustrate FIAs. It reads:

***“In determining the non-guaranteed illustrated values for a fixed indexed annuity, the index-based interest rate and account value shall be calculated for three different scenarios: one to reflect historical performance of the index for the most recent ten (10) calendar years...[the lowest 10 years]...[the highest 10 years]...out of the last 20 calendar years...The non-guaranteed element(s), such as caps, spreads, participation rates and other interest crediting adjustments, used in calculating the non-guaranteed index-based interest rate shall be no more favorable than the corresponding current element(s).”***

In other words, FIAs operate under the same basic framework as Indexed UL. Both use a hypothetical historical lookback methodology that applies currently declared “interest crediting adjustments” to historical index return data. The difference is that in AG 49 for Indexed UL, the illustrated rate is level and based on the average of 25-year returns for the past 66 years. But for the Disclosure Reg and FIAs, the illustrated rate is variable and based on the best, worst and most recent 10-year periods over the past 20 years. The 10-year variable returns are then repeated out for the remainder of the illustration.

The fundamental problem with this hypothetical lookback methodology is that it can be easily gamed because the data is already known. All you have to do is optimize an index

or a crediting strategy to back-fit the data if you want to increase illustrated performance. Life insurers were doing it with bespoke crediting strategies in the 2010s and now they're doing it with engineered indices. Both of those are simply means to maximize illustrated performance without actually delivering more value to the customer if you define "value" as the fair-market price of the options. AG 49, AG 49-A and now AG 49-B have gone a long, long way in mitigating the potential for abuse in Indexed UL, even if it doesn't always feel that way to those of us on the Life side of the business.

Regulators attempted to do the same thing with an update to the annuity Disclosure Reg that disallows the illustration of any index with a history less than 10 years in order to clamp down on the illustrated benefits of engineered indices, but the individual states have been mysteriously slow to adopt it. As it currently stands, just 11 of the 51 US jurisdictions (including DC) disallow illustrations for indices that haven't been in existence for less than 10 years. Of those that remain, just two – NY and IA – have closed a loophole that allows insurers to illustrate generic, "hypothetical" versions of those indices that have the exact same illustrated performance as the real thing. Gotta love this industry, right?

Life insurers have become exceedingly adept at maximizing illustrated performance in their FIA products using engineered indices. There are, by my count, no less than 13 FIA writers who have a 1-year indexed crediting strategy using an engineered index with illustrated rates **greater than 10%**. There are a whole slew of companies in the 8-10% range. At the absolute top of the heap is Athene, with a whopping 24.67% illustrated rate on the new HSBC AI Powered Global Opportunities index, followed by Nationwide at 17.51%. And, for the sake of clarity, I feel like I need to emphasize the fact that these are annualized returns that are calculated based on the actual cash value growth in the illustration. If a client deposits \$100,000 into a policy illustrating 25%, the illustration is showing over \$900,000 in account value by the end of the 10<sup>th</sup> year.

As high as those average returns are, the more insidious problem with the best/worst/most recent 10 year illustration construct is the what happens on the worst-10 side of the ledger. Engineered indices are optimized to deliver not just lights-out illustrated performance from the most recent 10 year period but also to maintain high returns in the worst-10 scenario. For example, one index that I happened to pull has a 12.14% illustrated rate for the most recent 10 years, 14.21% for the best 10 years and 11.28% for the lowest 10 years. Carriers, agents and distributors play this up as a "can't

lose” sort of situation where the “worst case” scenario is still double-digit returns. That is a fundamentally misleading characterization that, in my experience, seems to sometimes be a key part of the sales process.

These sorts of double-digit returns on best/worst/most recent illustrations that I’ve quoted so far are only for vanilla account structures. As we saw in Indexed UL in the mid-2010s with AIG Elite Global IUL and its 10.28% default illustrated rate, using multi-year crediting strategies can dramatically boost illustrated performance. AG 49 specifically eliminates the illustrated benefits of multi-year strategies, which is why they’ve almost completely disappeared from Indexed UL products, but they’re now omnipresent in FIAs.

What came after AG 49? Fees that go to boost upside potential, what we called multipliers and buy-up caps, which AG 49-A was written specifically to address. But because there is no AG 49 equivalent in annuities, fee-for-rate (or “performance fee”) structures that boost the participation rate and/or caps on strategies in order to maximize illustrated performance are rampant in FIAs. When you combine multi-year strategies with fee-for-rate structures, some of which have annualized fees as high as 3%, you get some pretty massive illustrated returns without even pushing the limits in terms of the index itself.

The effect on illustrated rates is palpable. There are around 550 accounts available in FIA products that illustrate more than 10% once you factor in the ability to use multi-year and fee-for-rate designs. More than a hundred of those accounts have illustrated returns above 15%. Athene again tops the chart with a 2-year version, fee-for-rate of the AI Powered Global Opportunities index ringing in at – I kid you not – a 32.97% annualized return. F&G nearly hits 24% with a 2 year strategy with a 1.25% performance fee. And if you think this isn’t widespread, here’s a table of the top 20 FIA writers by IMO sales in Q2 of 2023 and their maximum illustrated annualized rate. Sales data is courtesy of Wink’s Sales & Market Report.

Q2 23 Rank	Carrier by Rank	Market Share	Crediting Period	Fee- for- Rate	Max Annualized Illustrated Return	Index Type
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1	Allianz	17%	2	0.95%	13.43%	Engineerec
2	American Equity	11%	2	3.00%	19.53%	Engineerec
3	Athene	11%	2	1.25%	32.97%	Engineerec
4	Sammons	9%	2	0.00%	16.70%	Engineerec
5	Security Benefit	9%	2	0.95%	19.44%	Engineerec
6	F&G Life	7%	2	1.25%	23.96%	Engineerec
7	Nationwide	5%	2	0.00%	17.51%	Engineerec
8	Corebridge	4%	2	1.00%	19.74%	Engineerec
9	SILAC	4%	1	0.00%	22.04%	Engineerec
10	National Life	3%	2	1.00%	17.76%	Engineerec
11	EquiTrust	2%	2	0.00%	11.18%	Engineerec
12	Lincoln	2%	2	0.00%	11.36%	Engineerec
13	Aspida	2%	2	0.00%	15.52%	Engineerec
14	Nassau	2%	2	2.00%	11.07%	Nasdaq 100
15	Kuvare	1%	1	0.00%	10.86%	Engineerec
16	MassMutual Ascend	1%	1	0.00%	7.87%	S&P 500
17	Investors	1%	1	0.00%	10.55%	Engineerec

	Heritage					
18	Atlantic Coast Life	1%	3	0.00%	18.92%	Engineered
19	Global Atlantic	1%	1	0.00%	12.82%	Engineered
20	American Life	1%	2	1.25%	14.26%	Engineered

Of the top 20 FIA writers in the IMO channel, just one, MassMutual Ascend, doesn't compete on maximum illustrated performance courtesy of multi-year strategies, fee-for-rate structures and engineered indices. But for literally every single other company on the list, illustrated rates appear to be a key element to their success in FIA, whether they want to admit it or not. If that wasn't the case, then why would they all be chasing double-digit illustrated returns?

I think it's safe to say that FIA illustrations are wildly, preposterously, scandalously divorced from reality. If you do some back-of-the-envelope math to calculate illustrated option profits – in other words, the ratio of the hedge cost to the illustrated return – you get illustrated option profits of well over 100% for all of these strategies. Considering that AG 49 uses 45% and that is considered by many to be scandalously high, FIAs are on another planet in terms aggressiveness. Clients are being shown returns of 100% on an annualized basis ***due to the options strategy embedded in a fixed insurance product.*** That seems very, very problematic.

However, I think there's a key difference between the ways that FIAs and Indexed UL products are sold. With Indexed UL, the consequence of underperformance is financial loss (due to policy charges), a lapsed contract and/or a phantom income tax bill if loans have been taken out. But for pure-bred accumulation FIAs, the consequence of underperformance is "just" profound disappointment and the missed opportunity of investing elsewhere. FIAs have a built in non-forfeiture floor that eliminates the possibility of an actual financial loss. Hence, the reason why FIAs have historically and correctly been positioned as fixed income alternatives. As long as they're sold that way,

they'll deliver. But if they're sold as equity replacements with zero risk, which seems to be increasingly the case due to double-digit illustrated returns, that's where the trouble starts.

But that's not where it ends. The real problem in FIA is that the issue of overly aggressive illustrations extends into products that offer guaranteed income streams *contingent on product performance*. Allianz has almost singlehandedly forged this category in the market and still completely dominates it with (depending on the year) the all-time, best-selling 222 product and the upstart ABC product. Other companies, most notably Athene, have jumped into the space as well. Last year, Allianz sold over \$7 billion of ABC and 222 – nearly 10% of the total FIA market. It is hard to understate the complete dominance that Allianz exerts on income-oriented fixed annuities courtesy of these two products.

What makes 222 and particularly ABC unique is that they effectively suppress growth in the Account Value in order to funnel larger indexed returns to the Protected Income Value, which serves as the basis for the future guaranteed income stream. They are essentially single-use annuities designed for income – but they only really work if indexed performance is strong. Otherwise, the customer would have been better off in a traditional annuity with higher guaranteed income or a dual-use product that still offers strong Account Value growth.

What really sets 222 and ABC apart is what happens after the guaranteed income stream starts and the Account Value has been burned to zero, which usually happens within 5 years of the income start date, way quicker than in a Variable Annuity or other FIAs with more traditional income benefit designs. Despite the fact that there is no Account Value or Protected Income Value eligible to earn index-linked credits, the guaranteed income stream still grows based on indexed performance *because the credits are applied directly to the income stream itself*.

As a result, the guaranteed income streams shown on the illustrations and fueled by illustrated returns on the indexed strategies can be colossal. Take a look at these illustrations for **Allianz 222**, **Allianz ABC** and **Athene Agility**, all of which show illustrated IRRs of 13.5% or higher in their most aggressively illustrated accounts on an income stream from age 65 to age 85. Little wonder why they sell so well. But the entire pitch and competitive positioning is dependent on illustrated performance. Without that, there's no real reason to choose them over more conventional annuity options.

Perhaps that is why Allianz puts a disclosure page before the illustration that reads in part – “This illustration is provided to help you understand how the features and crediting strategies within this contract work. **It is not a promise of future returns or results...do not place much reliance on the historical performance shown in this illustration.**” And yet the roughly \$55 billion in all-time 222 and ABC sales seem to indicate that quite a few people have put quite a lot of stock in the “historical performance shown in this illustration,” not to mention the billions of dollars sold in predecessor designs with similar attributes.

The fact that all major FIA writers, especially the ones at the top of the sales chart, heavily promote double-digit illustrated performance is, in my view, a structural weakness in the FIA ecosystem. These products don’t need to be aggressively illustrated to be valuable. FIA products can deliver real benefits to consumers for both accumulation and income as an alternative to traditional fixed income. Why have FIA writers decided to embroil the entire industry in illustration warfare that has essentially reached a point of mutually assured destruction – so why are they still at it?

The answer, in part, is because there is a cottage industry in FIA manufacturing supporting these indices and making money from them. Tens of billions of dollars have been allocated to engineered indices in FIA products at this point and, considering an average licensing fee of around 0.15%, that means tens of millions of dollars annually in pure fee revenue to the banks and asset managers building these indices. On top of that, there are numerous “product development” firms in the annuity industry that specialize in helping to make marriages between distributors, index providers and life insurers, reaping millions of dollars in fees in the process. On top of that, firms have started cropping up that attempt to compare, benchmark and analyze these indices in an attempt to help agents figure out the “best” one to sell. What’s the “best?” Usually the one that illustrates the best.

And then, of course, there are the agents and distributors selling these products. There is a lot of money to be made in believing the hype. Some agents and distributors seem to have gone all-in on these indices, with some firms building their entire identity (and income) on engineered indices. But in my experience, adoption of these aggressive illustrations in FIAs by agents and even distributors is not universal. There are a lot of agents and distributors who are increasingly angry and disillusioned by the illustrated rates being shown. They feel like it distracts from the fundamental premise of the

product. They're concerned about the direction of the industry and they make a conscious effort to downplay what life insurers are showing for both income and accumulation products. They're trying to set reasonable expectations and feel like life insurers and some distributors are pushing them the other direction. They fear that current illustration practices are a looming litigation and regulation liability. And I think they may very well be right.

It would be a mistake to assume that what happens in FIA won't impact what happens in Indexed UL. I'm often asked when Indexed UL will be registered as a securities product like Variable UL and my answer is that it'll happen when FIA becomes a registered product. FINRA and the SEC barely know that Indexed UL exists, but they definitely know about FIAs and have been looking for an avenue to have oversight there for a very long time. Their most recent tactic is a court case against an RIA who was selling FIAs. These sorts of 10%+ illustrated rates of return are only more fuel for the fire. How can an insurer, distributor and advisor claim to be selling a registration-exempt fixed insurance product for its guarantees and protection when they're illustrating a 30% return? Good luck with that argument.

State insurance regulators have long punted on the question of FIA illustrations because adoption of the Disclosure Reg has been so thin and any attempt to put stricter regulation on annuity writers has been met with vehement opposition from the industry and its various representatives. The dynamic for FIAs is very different than in IUL. With life insurance, the Whole Life companies and even some smaller IUL writers have been vocal about perceived abuses in Indexed UL illustrations. There is no counterweight to the FIA writers in regulatory debates. The industry presents a completely united front because every major FIA writer has the same agenda. They all want to grow their asset base and sell more FIA. Because mutual companies generally stay out of FIAs, there are no natural foils.

The irony is that same state regulators dealing with IUL are also the ones dealing with FIA. That IUL regulation has landed in such a different spot than FIA regulation is an indication that political dynamics are very, very strong in the regulatory sphere. Theoretically, illustrations between the two should be consistent. But in reality, because of politics, Indexed UL has been curtailed and FIA has been allowed to run free. This should not stand. Regulators should create a unified framework for FIA and IUL illustrations based on a principles-first approach.

And if the regulators don't handle it, the litigators certainly will. There are already lawsuits swirling around on FIA illustrations. There will be many more, especially now that some of the first engineered indices to really sell at scale have drastically underperformed their original illustrations and backtested performance. Every dollar of the tens of billions of dollars in engineered indices represents a potential future litigation liability. All it takes a few bad years. The fact that virtually every engineered index got pummeled in 2022 and many of them are *still negative* in 2023 is a pretty good place to start.

As a result, IUL writers should pay attention to what's happening in the world of FIAs. For too long we have pretended that these two product lines are separate. That is not the case. Their fates are intertwined. What happens in FIA will spill over into Indexed UL – and with potentially profound consequences.

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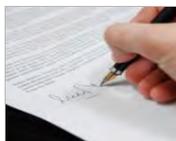
*\*Excluding rider fees or fee-for-rate/performance fees, as discussed later in the article.*



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# Engineered Indices & FIA



Bobby Samuelson

September 18, 2023

## Engineered Indices & FIA

***A longer-form version of this post was originally published to [The Life Product Review](#).***

If you've been even casually watching the Indexed UL landscape over the past 5 years or so, then you're probably well aware of the fact that engineered indices have come to play an increasingly pivotal role how Indexed UL products are illustrated and sold. The story of the index is becoming *almost* as important as the story of the product itself. The illustrated performance of these indices is driving larger allocations to them and life insurers are incredibly reliant on those allocations for overall profitability. It feels as though Indexed UL has entered a new phase that is distinctly different from what came before and not entirely good for the industry. And if that's concerning to you and you feel like things are getting a little bit out of hand in Indexed UL, then buckle up. You ain't seen nothing yet.

FIA illustrations operate under the same basic illustration framework as Indexed UL. Both use a hypothetical historical lookback methodology that applies currently declared "interest crediting adjustments" to historical index return data. The difference is that in AG 49 for Indexed UL, the illustrated rate is level and based on the average of 25-year returns for the past 66 years. But for the Disclosure Reg and FIAs, the illustrated rate is variable and based on the best, worst and most recent 10-year periods over the past 20 years. The 10-year variable returns are then repeated out for the remainder of the illustration.

The fundamental problem with this hypothetical lookback methodology is that it can be easily gamed because the data is already known. All you have to do is optimize an index or a crediting strategy to back-fit the data if you want to increase illustrated

performance. Life insurers were doing it with bespoke crediting strategies in the 2010s and now they're doing it with engineered indices. Both of those are simply means to maximize illustrated performance without necessarily delivering more value to the customer - if you define "value" as the fair-market cost of the options used to support the crediting strategy.

## Engineered Index Illustrated Performance in FIA

Life insurers have become exceedingly adept at maximizing illustrated performance in their FIA products using engineered indices. There are now 165+ engineered indices in market that permeate virtually every FIA product. There is nothing inherently wrong with engineered indices. They can offer valuable diversification benefits and, in some situations, outperform benchmark indices. But the chief attraction for engineered indices is that they deliver the holy grail of indexed crediting - cheap options and high backtested performance. Put those two things together and you get 100%+ participation rates and colossal illustrated performance. It's the stuff sales people dream of.

As a result, FIA writers have plunged headfirst into engineered indices. There are, by my count, no less than 13 FIA writers who have a 1-year indexed crediting strategy using an engineered index with illustrated rates *greater than 10%*. There are a whole slew of companies in the 8-10% range. At the absolute top of the heap is Athene, with a whopping 24.67% illustrated rate on the new HSBC AI Powered Global Opportunities index, followed by Nationwide at 17.51%. And, for the sake of clarity, I feel like I need to emphasize the fact that these are annualized returns that are calculated based on the actual cash value growth in the illustration. If a client deposits \$100,000 into a policy illustrating 25%, the illustration is showing over \$900,000 in account value by the end of the 10<sup>th</sup> year.

As high as those average returns are, the more insidious problem with the best/worst/most recent 10 year illustration construct is the what happens on the worst-10 side of the ledger. Engineered indices are optimized to deliver not just lights-out illustrated performance from the most recent 10 year period but also to maintain high returns in the worst-10 scenario. For example, one index that I happened to pull has a 12.14% illustrated rate for the most recent 10 years, 14.21% for the best 10 years and 11.28% for the lowest 10 years. Carriers, agents and distributors play this up as a "can't lose" sort of situation where the "worst case" scenario is still double-digit returns. That is a fundamentally misleading characterization that, in my experience, seems to sometimes be a key part of the sales process.

These sorts of double-digit returns on best/worst/most recent illustrations that I've

quoted so far are only for vanilla account structures. When you combine multi-year strategies with fee-for-rate (“performance fee”) structures, some of which have annualized fees as high as 3%, you can get some pretty massive illustrated returns without even pushing the limits in terms of the index itself. Nassau Re, for example, sports an 11.07% on its 2-year Nasdaq 100 account with a 2% performance fee.

The combination of engineered indices, multi-year crediting strategies and fee-for-rate designs have pushed illustrated returns on FIAs into the stratosphere. There are around 550 accounts available in FIA products that illustrate more than 10%. Below is a table of the top 20 FIA writers by IMO sales in Q2 of 2023 and their maximum illustrated annualized rate. Sales data is courtesy of Wink’s Sales & Market Report.

Q2 23 Sales Rank	Carrier by Rank	Share	Years	Fee	Top Illustrated rate	Index
1	Allianz	17%	2	0.95%	13.43%	Engineered
2	American Equity	11%	2	3.00%	19.53%	Engineered
3	Athene	11%	2	1.25%	32.97%	Engineered
4	Sammons	9%	2	0.00%	16.70%	Engineered
5	Security Benefit	9%	2	0.95%	19.44%	Engineered
6	F&G Life	7%	2	1.25%	23.96%	Engineered
7	Nationwide	5%	2	0.00%	17.51%	Engineered
8	Corebridge	4%	2	1.00%	19.74%	Engineered
9	SILAC	4%	1	0.00%	22.04%	Engineered
10	National Life	3%	2	1.00%	17.76%	Engineered
11	EquiTrust	2%	2	0.00%	11.18%	Engineered
12	Lincoln	2%	2	0.00%	11.36%	Engineered
13	Aspida	2%	2	0.00%	15.52%	Engineered
14	Nassau	2%	2	2.00%	11.07%	Nasdaq 100
15	Kuvare	1%	1	0.00%	10.86%	Engineered
16	MassMutual Ascend	1%	1	0.00%	7.87%	S&P 500
17	Investors Heritage	1%	1	0.00%	10.55%	Engineered
18	Atlantic Coast Life	1%	3	0.00%	18.92%	Engineered
19	Global Atlantic	1%	1	0.00%	12.82%	Engineered
20	American Life	1%	2	1.25%	14.26%	Engineered

Of the top 20 FIA writers in the IMO channel, just one, MassMutual Ascend, doesn’t compete on maximum illustrated performance courtesy of multi-year strategies, fee-for-rate structures and engineered indices. But for literally every single other company on the list, illustrated rates appear to be a key element to their success in FIA, whether they want to admit it or not. If that wasn’t the case, then why would they all be chasing double-digit illustrated returns

### Illustrated Performance and Illustrated Income

Double-digit illustrated returns have a profound effect on illustrated cash value

performance, but the real leverage happens when these illustrated returns are applied to income. One of the most popular annuity designs in market today grows guaranteed income with indexed credits at the expense of lower indexed credits being applied to the actual policy account value. They are essentially single-use annuities designed for income – but they only really work if indexed performance is strong. Otherwise, the customer would have been better off in a traditional annuity with higher guaranteed income or a dual-use product that still offers strong Account Value growth.

As a result, the guaranteed income streams shown on the illustrations and fueled by illustrated returns on the indexed strategies can be colossal. Of the top 3 FIA products sold with these sorts of riders, all show illustrated IRRs of 13.5% or higher in their most aggressively illustrated accounts on an income stream from Age 65 to Age 85. Little wonder why they sell so well. But the entire pitch and competitive positioning is dependent on illustrated performance. Without that, there's no real reason to choose them.

### **Illustration Warfare Endgame**

The fact that all major FIA writers, especially the ones at the top of the sales chart, heavily promote double-digit illustrated performance is, in my view, a structural weakness in the FIA ecosystem. These products don't need to be aggressively illustrated to be valuable. FIA products can deliver real benefits to consumers for both accumulation and income as an alternative to traditional fixed income. Why have FIA writers decided to embroil the entire industry in illustration warfare that has essentially reached a point of mutually assured destruction – and yet they're still at it?

The answer, in part, is because there is a lot of money to be made in engineered indices. Most of the biggest FIA success stories of the last decade in the IMO channel - Nationwide, Athene, F&G, Allianz - have, in some way, been predicated on the use of engineered indices. An entire cottage industry has cropped up to support engineered indices in FIAs including index analytics consultants, "product development" firms that make marriages between index providers, insurers and distributors, third-party index analytics firms and, obviously, the rapidly growing list of index providers themselves.

But I think that some of the illustration warfare is unintentional. The best/worst/recent 10 year illustration methodology in the Disclosure Reg is fundamentally flawed. It naturally produces aggressive illustrations without even life insurers trying to do it, especially for engineered indices. Consider a situation where a life insurer makes a decision about using a particular index based on the merits of the index structure alone without even looking at the backtested performance. Then, the insurer plugs it into illustration and

gets a 10% illustrated return - is the problem the insurer, the index or the regulation? What about if the index I'm talking about isn't engineered, but the Nasdaq 100 or some other benchmark index? I would argue that the chief blame, in this situation, lies with the flawed regulation that relies on backtested performance.

The question is what to do about it. Insurers have the choice of whether or not to feed into the hype-vortex on illustrated performance. Some are clearly choosing to play the game to maximize illustrated performance, but others are not, or at least are not doing it intentionally. Distributors have the choice of whether they want to craft their value proposition around the claims of insurers, index providers and "product development" companies about index performance or if they want to do their own due diligence. And agents, of course, have the choice about what story they ultimately want to tell to their clients about performance. Is FIA a fixed income alternative or a fantastical product that delivers 30% returns with no principal risk?

Decisions have consequences. And we, as an industry, need to start deciding before regulators, lawyers and potentially even the SEC decide for us.

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## Case Information:

Owner: Valued Client

Issue State: Illinois

Prepared By: Steven DeJohn

Date Prepared: September 18, 2023

A SILAC Denali 14 fixed indexed annuity may be a good fit for you if you are looking for...

**Guarantees** – This annuity contract comes with a number of guarantees built in. These include an annual fixed rate of interest that is declared each year, minimum guaranteed interest rates, and a minimum value.

**Accumulation Potential** – In addition to the fixed interest strategy, additional crediting strategies are available that are based on the performance of an underlying index.

**Protection from Market Downturns** – If the underlying index of a crediting strategy you elected suffers a loss, the minimum interest credit you would receive is 0%.

**Tax Deferral** – The Denali 14 provides tax-deferred accumulation of your funds. You won't pay taxes on any interest until you choose to receive funds in the form of withdrawals, income payments or as a death benefit.

**Income** – At the maturity date, you have options to create a reliable income stream.

**A Death Benefit** – The Denali 14 offers a death benefit to your beneficiary(ies) that is probate-free.

## ABOUT ANNUITY ILLUSTRATIONS

**This is a hypothetical illustration only, not a contract. This hypothetical illustration is not an indication of the annuity's past or future performance.** It is hypothetical and is intended solely to show how different crediting strategies affect your annuity. To calculate the generated values, this illustration assumes the selected index will repeat theoretical historical performance and that the annuity's non-guaranteed elements, such as caps, spreads, participation rates or other adjustments, will not change in the future. Outside of this hypothetical illustration, it is likely that: the indexes will not repeat the illustrated theoretical historical performance; the illustrated annuity's non-guaranteed elements will change; and actual values will be either higher or lower than those in this illustration. However, the generated values will never be less than the minimum guarantees. The generated values in this illustration are not guarantees, or even estimates, of the amounts you can expect from your annuity. Please review the Certificate of Disclosure provided for more detailed information. All rates, caps and spreads are effective as of the date of the illustration, are not guaranteed and are subject to change at any time. Guarantees are backed by the financial strength and claims-paying ability of the issuing company. Please read the Buyer's Guide, Certificate of Disclosure and Policy for more information. The exact terms of your annuity are contained in the annuity policy and attached riders.



**GENERAL PRODUCT FEATURES**

Listed below is an overview of basic product features. Please refer to the product-specific brochure and disclosure for more information.

**PREMIUM**

The amount deposited into the annuity contract.

**ACCOUNT VALUE**

The sum of premiums paid and interest credited, if any, and less withdrawals.

**DEATH BENEFIT**

The Death Benefit is equal to the Account Value but will never be less than the minimum requirements set forth by state laws, at the time of issue, in the state where the contract is delivered.

**MARKET VALUE ADJUSTMENT (MVA)**

May be applied during the Withdrawal Charge Period. See the MVA section at the end of this illustration for more information.

**MATURITY DATE**

The policy anniversary when the Annuitant is age 110.

**INCOME OPTIONS**

On your Maturity Date, income options available include period certain, life-contingent options and joint and survivor options. An example of a 10-year period certain based on Guaranteed Values as shown below.

	Account Value at Maturity	Monthly Factor/1000	Monthly Income
Guaranteed	171,079	8.75	1,496.94

**CASH VALUE**

The value available at the time of full withdrawal. It is equal to the Account Value, subject to the MVA, if any, less applicable interest recovery, withdrawal charges and state premium taxes. It will never be less than the minimum requirements set forth by state laws, at the time of issue, in the state where the contract is delivered.

**FREE WITHDRAWALS**

Once per year after year 1, you may take a free withdrawal without withdrawal charges, interest recovery, and MVA, up to 5% of your Account Value. RMDs are available immediately.

**WITHDRAWAL CHARGES**

A withdrawal charge is assessed on any amount withdrawn that exceeds the free withdrawal amount.

**WITHDRAWAL CHARGE SCHEDULE YEARS 1-14**

14.75%, 13.75%, 12.75%, 11.75%, 10.75%, 10.00%, 9.00%, 8.00%, 7.00%, 6.00%, 5.00%, 4.00%, 3.00%, 2.00%

**INTEREST RECOVERY**

A bonus recovery table applies during the withdrawal charge period on any amount withdrawn that exceeds the free withdrawal amount.

**INTEREST RECOVERY TABLE YEARS 1-14**

100%, 95%, 95%, 95%, 95%, 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 10%



## **FIXED INTEREST**

Premium allocated to the Fixed Interest strategy will earn the current interest rate that is credited daily. The Fixed Interest rate is declared on an annual basis.

## **POINT-TO-POINT WITH CAP**

This crediting strategy measures index growth using two points in time: the beginning and ending index values. Interest credits are calculated based on the difference between these two values. The interest credit, if any, is then subject to a cap. The interest credit will never be greater than the cap or less than zero.

## **POINT-TO-POINT WITH PARTICIPATION RATE**

This crediting strategy measures index growth using two points in time: the beginning and ending index values. Interest credits are calculated based on the difference between these two values multiplied by a participation rate. The interest credit will never be less than zero.

## **POINT-TO-POINT WITH SPREAD**

This crediting strategy measures index growth using two points in time: the beginning and ending index values. Interest credits are calculated based on the difference between these two values less a spread. The interest credit will never be less than zero.

## **MONTHLY POINT-TO-POINT WITH CAP**

This crediting strategy uses the monthly changes in the underlying index, subject to a monthly cap. It is the sum of all the monthly percentage changes in the underlying index - which could be positive or negative. On the last day of each strategy term, these monthly changes, not to exceed the monthly cap, are added together to calculate the interest credit for that year. Negative monthly changes have no downside limit, but the interest credit will never be less than zero.

## **MONTHLY AVERAGE WITH PARTICIPATION RATE**

This crediting strategy uses a monthly average calculation to determine a percentage gain or loss in the index during the strategy term. This is done by comparing the difference between the index on the first day of the strategy term and the monthly average during the strategy term. This difference is then multiplied by a participation rate. The interest credit will never be less than zero.

To help explain how the Denali 14 works, this illustration shows values under the following scenarios: 1) guaranteed values using minimums and 2) non-guaranteed values based on the historical index performance of the most recent 10 years. It also includes hypothetical values using the following scenarios: the most recent 10 years, the highest 10 years out of the last 20 years and the lowest 10 years out of the last 20 years.

**LIFETIME WITHDRAWAL BENEFIT FEATURES**

The Lifetime Withdrawal Benefit is included automatically and is designed to provide a lifetime income stream while still maintaining access to the account value. Once started, Lifetime Withdrawals will continue for life - even if the Account Value is reduced to zero.

**LIFETIME WITHDRAWALS**

Lifetime Withdrawals are available anytime after the first policy year. They are equal to the current Account Value multiplied by the applicable Lifetime Withdrawal Percentage. Future Lifetime Withdrawals may increase with Step-Ups and will not decrease unless a withdrawal greater than the Lifetime Withdrawal is taken.

**STEP-UP**

If the current Account Value on any Policy Anniversary multiplied by the Lifetime Withdrawal Percentage on the date Lifetime Withdrawals began is greater than the current Lifetime Withdrawal, then the Lifetime Withdrawal will be increased to that higher amount.

**WELLNESS WITHDRAWALS**

Wellness Withdrawals can be triggered if certain requirements are met. The Wellness Withdrawal is established at the time of impairment and equals the Lifetime Withdrawal multiplied by the applicable Wellness Multiplier. In order to qualify, you or your spouse must not be able to perform at least two of six Activities of Daily Living, this impairment began after the policy was issued and the Wellness Waiting Period of two years has been met. Wellness Withdrawals are available for up to 5 consecutive policy years.

**LIFETIME WITHDRAWAL PERCENTAGES**

Lifetime Withdrawal Percentages follow the below schedule:

Attained Age	Single	Joint (Youngest)
50	3.25%	2.25%
51	3.35%	2.35%
52	3.45%	2.45%
53	3.55%	2.55%
54	3.65%	2.65%
55	3.75%	2.75%
56	3.85%	2.85%
57	3.95%	2.95%
58	4.05%	3.05%
59	4.15%	3.15%

Attained Age	Single	Joint (Youngest)
60	4.25%	3.25%
61	4.35%	3.35%
62	4.45%	3.45%
63	4.55%	3.55%
64	4.65%	3.65%
65	4.75%	3.75%
66	4.85%	3.85%
67	4.95%	3.95%
68	5.05%	4.05%
69	5.15%	4.15%

Attained Age	Single	Joint (Youngest)
70	5.25%	4.25%
71	5.35%	4.35%
72	5.45%	4.45%
73	5.55%	4.55%
74	5.65%	4.65%
75	5.75%	4.75%
76	5.85%	4.85%
77	5.95%	4.95%
78	6.05%	5.05%
79	6.15%	5.15%

Attained Age	Single	Joint (Youngest)
80	6.25%	5.25%
81	6.35%	5.35%
82	6.45%	5.45%
83	6.55%	5.55%
84	6.65%	5.65%
85	6.75%	5.75%
86	6.85%	5.85%
87	6.95%	5.95%
88	7.05%	6.05%
89	7.15%	6.15%
90+	7.25%	6.25%



**CASE OVERVIEW**

Owner Name: Valued Client  
Age: 60

Issue State: Illinois  
Tax Qualification: Qualified  
Initial Premium: \$100,000

**ILLUSTRATION OVERVIEW**

**Denali 14 Annuity**

The current fixed rates, caps and participation rates in the below chart are guaranteed for the initial strategy term. After the initial strategy term, renewal rates will be declared. The fixed rate, participation rates and caps will never be less than the minimum adjustment specified below. The spread will never be more than the maximum adjustment specified below.

Crediting Strategy	Allocation %	Current Adjustment	Minimum Adjustment	Maximum Adjustment	Strategy Term
Fixed Interest	0.00%	5.75%	0.50%	N/A	1
S&P 500 Point-to-Point Cap	0.00%	14.50%	1.50%	N/A	1
S&P 500 Point-to-Point PR	0.00%	75.00%	10.00%	N/A	1
S&P 500 Duo Swift Point-to-Point PR	0.00%	110.00%	10.00%	N/A	1
S&P 500 Monthly Point-to-Point Cap	0.00%	4.50%	0.75%	N/A	1
S&P 500 Monthly Average PR	0.00%	130.00%	10.00%	N/A	1
Barclays Atlas 5 Point-to-Point PR	0.00%	280.00%	10.00%	N/A	1
Barclays Atlas 5 Point-to-Point Spread	0.00%	-6.50%	N/A	10.00%	1
CS RavenPack AI Point-to-Point PR	0.00%	300.00%	10.00%	N/A	1
CS RavenPack AI Point-to-Point Spread	0.00%	-7.00%	N/A	10.00%	1
NDX Generations 5 Point-to-Point PR	100.00%	290.00%	10.00%	N/A	1
NDX Generations 5 Point-to-Point Spread	0.00%	-6.50%	N/A	10.00%	1

This hypothetical illustration is based on the above allocations and information that you entered and assumes that this information remains the same throughout the entire duration shown. If different information was entered, this hypothetical illustration would reflect different information. Rates and adjustments displayed are current as of the date of this hypothetical illustration.

Guaranteed Policy Values are based on guaranteed rates and adjustments and assumes the guaranteed minimum interest credit of 0.00% in all Policy Years for premium allocated to an indexed crediting strategy. Premium allocated to the Fixed Interest Strategy is credited with the declared rate above for the first Policy Year and the minimum rate thereafter. Non-Guaranteed Policy Values are illustrated assuming the crediting strategies listed will perform in 10-year cycles exactly as it has over the past theoretical historical 10 calendar years and assuming that the current adjustments will remain the same for all Policy Years. The values in this illustration are not guarantees, or even estimates, of the amounts you can expect to receive from your annuity.



GUARANTEED POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)											ANNUAL EFFECTIVE RATE: 0.00%
END OF YEAR	OWNER AGE	PREMIUM	ANNUAL WITHDRAWAL	INTEREST CREDIT RATE	INTEREST CREDIT AMOUNT	ACCOUNT VALUE	CASH VALUE**	LIFETIME WITHDRAWAL	WELLNESS WITHDRAWAL	TOTAL WITHDRAWALS	TOTAL BENEFIT*
Issue	60	100,000	0	N/A	N/A	100,000	87,500	N/A	N/A	0	100,000
1	61	0	0	0.00%	0	100,000	88,681	4,350	N/A	0	100,000
2	62	0	0	0.00%	0	100,000	89,878	4,450	8,900	0	100,000
3	63	0	0	0.00%	0	100,000	91,092	4,550	9,100	0	100,000
4	64	0	0	0.00%	0	100,000	92,322	4,650	9,300	0	100,000
5	65	0	0	0.00%	0	100,000	93,568	4,750	9,500	0	100,000
6	66	0	0	0.00%	0	100,000	94,831	4,850	9,700	0	100,000
7	67	0	0	0.00%	0	100,000	96,111	4,950	9,900	0	100,000
8	68	0	0	0.00%	0	100,000	97,409	5,050	10,100	0	100,000
9	69	0	0	0.00%	0	100,000	98,724	5,150	10,300	0	100,000
10	70	0	0	0.00%	0	100,000	100,057	5,253	10,506	0	100,057
11	71	0	0	0.00%	0	100,000	101,407	5,425	10,851	0	101,407
12	72	0	0	0.00%	0	100,000	102,776	5,601	11,203	0	102,776
13	73	0	0	0.00%	0	100,000	104,164	5,781	11,562	0	104,164
14	74	0	0	0.00%	0	100,000	105,570	5,965	11,929	0	105,570
15	75	0	0	0.00%	0	100,000	106,995	6,152	12,304	0	106,995
16	76	0	0	0.00%	0	100,000	108,440	6,344	12,687	0	108,440
17	77	0	0	0.00%	0	100,000	109,904	6,539	13,079	0	109,904
18	78	0	0	0.00%	0	100,000	111,387	6,739	13,478	0	111,387
19	79	0	0	0.00%	0	100,000	112,891	6,943	13,886	0	112,891
20	80	0	0	0.00%	0	100,000	114,415	7,151	14,302	0	114,415
21	81	0	0	0.00%	0	100,000	115,960	7,363	14,727	0	115,960
22	82	0	0	0.00%	0	100,000	117,525	7,580	15,161	0	117,525
23	83	0	0	0.00%	0	100,000	119,112	7,802	15,604	0	119,112

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**GUARANTEED POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)** ANNUAL EFFECTIVE RATE: 0.00%

END OF YEAR	OWNER AGE	PREMIUM	ANNUAL WITHDRAWAL	INTEREST CREDIT RATE	INTEREST CREDIT AMOUNT	ACCOUNT VALUE	CASH VALUE**	LIFETIME WITHDRAWAL	WELLNESS WITHDRAWAL	TOTAL WITHDRAWALS	TOTAL BENEFIT*
24	84	0	0	0.00%	0	100,000	120,720	8,028	16,056	0	120,720
25	85	0	0	0.00%	0	100,000	122,349	8,259	16,517	0	122,349
26	86	0	0	0.00%	0	100,000	124,001	8,494	16,988	0	124,001
27	87	0	0	0.00%	0	100,000	125,675	8,734	17,469	0	125,675
28	88	0	0	0.00%	0	100,000	127,372	8,980	17,959	0	127,372
29	89	0	0	0.00%	0	100,000	129,091	9,230	18,460	0	129,091
30	90	0	0	0.00%	0	100,000	130,834	9,485	18,971	0	130,834
31	91	0	0	0.00%	0	100,000	132,600	9,614	19,227	0	132,600
32	92	0	0	0.00%	0	100,000	134,390	9,743	19,487	0	134,390
33	93	0	0	0.00%	0	100,000	136,205	9,875	19,750	0	136,205
34	94	0	0	0.00%	0	100,000	138,043	10,008	20,016	0	138,043
35	95	0	0	0.00%	0	100,000	139,907	10,143	20,287	0	139,907
36	96	0	0	0.00%	0	100,000	141,796	10,280	20,560	0	141,796
37	97	0	0	0.00%	0	100,000	143,710	10,419	20,838	0	143,710
38	98	0	0	0.00%	0	100,000	145,650	10,560	21,119	0	145,650
39	99	0	0	0.00%	0	100,000	147,616	10,702	21,404	0	147,616
40	100	0	0	0.00%	0	100,000	149,609	10,847	21,693	0	149,609
41	101	0	0	0.00%	0	100,000	151,629	10,993	21,986	0	151,629
42	102	0	0	0.00%	0	100,000	153,676	11,142	22,283	0	153,676
43	103	0	0	0.00%	0	100,000	155,750	11,292	22,584	0	155,750
44	104	0	0	0.00%	0	100,000	157,853	11,444	22,889	0	157,853
45	105	0	0	0.00%	0	100,000	159,984	11,599	23,198	0	159,984
46	106	0	0	0.00%	0	100,000	162,144	11,755	23,511	0	162,144
47	107	0	0	0.00%	0	100,000	164,333	11,914	23,828	0	164,333

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GUARANTEED POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)											ANNUAL EFFECTIVE RATE: 0.00%
END OF YEAR	OWNER AGE	PREMIUM	ANNUAL WITHDRAWAL	INTEREST CREDIT RATE	INTEREST CREDIT AMOUNT	ACCOUNT VALUE	CASH VALUE**	LIFETIME WITHDRAWAL	WELLNESS WITHDRAWAL	TOTAL WITHDRAWALS	TOTAL BENEFIT*
48	108	0	0	0.00%	0	100,000	166,551	12,075	24,150	0	166,551
49	109	0	0	0.00%	0	100,000	168,800	12,238	24,476	0	168,800
50	110	0	0	0.00%	0	100,000	171,079	N/A	N/A	0	171,079
<b>Totals</b>		<b>100,000</b>	<b>0</b>		<b>0</b>						

\* Total Benefit is the Death Benefit plus total withdrawals received.  
 \*\* Cash Value assumes MVA Percentage of 100%. See Possible Implications of MVA on page 19.  
 \*\*\* Wellness Withdrawals are available for up to 5 consecutive years with proof of inability to perform 2/6 Activities of Daily Living.



NON-GUARANTEED POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)											ANNUAL EFFECTIVE RATE: 18.85%
END OF YEAR	OWNER AGE	PREMIUM	ANNUAL WITHDRAWAL	INTEREST CREDIT RATE	INTEREST CREDIT AMOUNT	ACCOUNT VALUE	CASH VALUE**	LIFETIME WITHDRAWAL	WELLNESS WITHDRAWAL	TOTAL WITHDRAWALS	TOTAL BENEFIT*
Issue	60	100,000	0	N/A	N/A	100,000	87,500	N/A	N/A	0	100,000
1	61	0	0	25.43%	25,428	125,428	88,681	5,456	N/A	0	125,428
2	62	0	0	27.91%	35,009	160,437	89,878	7,139	14,279	0	160,437
3	63	0	0	9.60%	15,404	175,841	91,092	8,001	16,002	0	175,841
4	64	0	0	7.30%	12,835	188,676	92,684	8,773	17,547	0	188,676
5	65	0	0	30.14%	56,857	245,533	96,527	11,663	23,326	0	245,533
6	66	0	0	8.28%	20,333	265,866	106,587	12,894	25,789	0	265,866
7	67	0	0	36.09%	95,946	361,811	143,362	17,910	35,819	0	361,811
8	68	0	0	44.16%	159,776	521,587	218,476	26,340	52,680	0	521,587
9	69	0	0	7.78%	40,564	562,151	277,860	28,951	57,902	0	562,151
10	70	0	0	0.00%	0	562,151	325,076	29,513	59,026	0	562,151
11	71	0	0	25.43%	142,944	705,095	458,057	37,723	75,445	0	705,095
12	72	0	0	27.91%	196,806	901,901	657,331	49,154	98,307	0	901,901
13	73	0	0	9.60%	86,592	988,492	807,794	54,861	109,723	0	988,492
14	74	0	0	7.30%	72,150	1,060,643	962,578	59,926	119,853	0	1,060,643
15	75	0	0	30.14%	319,625	1,380,267	1,380,267	79,365	158,731	0	1,380,267
16	76	0	0	8.28%	114,300	1,494,567	1,494,567	87,432	174,864	0	1,494,567
17	77	0	0	36.09%	539,359	2,033,926	2,033,926	121,019	242,037	0	2,033,926
18	78	0	0	44.16%	898,182	2,932,108	2,932,108	177,393	354,785	0	2,932,108
19	79	0	0	7.78%	228,030	3,160,138	3,160,138	194,349	388,697	0	3,160,138
20	80	0	0	0.00%	0	3,160,138	3,160,138	197,509	395,017	0	3,160,138
21	81	0	0	25.43%	803,560	3,963,698	3,963,698	251,695	503,390	0	3,963,698
22	82	0	0	27.91%	1,106,347	5,070,046	5,070,046	327,018	654,036	0	5,070,046
23	83	0	0	9.60%	486,775	5,556,821	5,556,821	363,972	727,944	0	5,556,821

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NON-GUARANTEED POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)											ANNUAL EFFECTIVE RATE: 18.85%
END OF YEAR	OWNER AGE	PREMIUM	ANNUAL WITHDRAWAL	INTEREST CREDIT RATE	INTEREST CREDIT AMOUNT	ACCOUNT VALUE	CASH VALUE**	LIFETIME WITHDRAWAL	WELLNESS WITHDRAWAL	TOTAL WITHDRAWALS	TOTAL BENEFIT*
24	84	0	0	7.30%	405,592	5,962,413	5,962,413	396,500	793,001	0	5,962,413
25	85	0	0	30.14%	1,796,773	7,759,187	7,759,187	523,745	1,047,490	0	7,759,187
26	86	0	0	8.28%	642,538	8,401,725	8,401,725	575,518	1,151,036	0	8,401,725
27	87	0	0	36.09%	3,032,014	11,433,739	11,433,739	794,645	1,589,290	0	11,433,739
28	88	0	0	44.16%	5,049,139	16,482,878	16,482,878	1,162,043	2,324,086	0	16,482,878
29	89	0	0	7.78%	1,281,873	17,764,752	17,764,752	1,270,180	2,540,360	0	17,764,752
30	90	0	0	0.00%	0	17,764,752	17,764,752	1,287,945	2,575,889	0	17,764,752
31	91	0	0	25.43%	4,517,221	22,281,973	22,281,973	1,615,443	3,230,886	0	22,281,973
32	92	0	0	27.91%	6,219,344	28,501,317	28,501,317	2,066,345	4,132,691	0	28,501,317
33	93	0	0	9.60%	2,736,411	31,237,729	31,237,729	2,264,735	4,529,471	0	31,237,729
34	94	0	0	7.30%	2,280,042	33,517,770	33,517,770	2,430,038	4,860,077	0	33,517,770
35	95	0	0	30.14%	10,100,580	43,618,351	43,618,351	3,162,330	6,324,661	0	43,618,351
36	96	0	0	8.28%	3,612,036	47,230,386	47,230,386	3,424,203	6,848,406	0	47,230,386
37	97	0	0	36.09%	17,044,502	64,274,888	64,274,888	4,659,929	9,319,859	0	64,274,888
38	98	0	0	44.16%	28,383,791	92,658,679	92,658,679	6,717,754	13,435,508	0	92,658,679
39	99	0	0	7.78%	7,206,065	99,864,744	99,864,744	7,240,194	14,480,388	0	99,864,744
40	100	0	0	0.00%	0	99,864,744	99,864,744	7,240,194	14,480,388	0	99,864,744
41	101	0	0	25.43%	25,393,607	125,258,351	125,258,351	9,081,230	18,162,461	0	125,258,351
42	102	0	0	27.91%	34,962,111	160,220,462	160,220,462	11,615,983	23,231,967	0	160,220,462
43	103	0	0	9.60%	15,382,767	175,603,229	175,603,229	12,731,234	25,462,468	0	175,603,229
44	104	0	0	7.30%	12,817,280	188,420,508	188,420,508	13,660,487	27,320,974	0	188,420,508
45	105	0	0	30.14%	56,780,520	245,201,028	245,201,028	17,777,075	35,554,149	0	245,201,028
46	106	0	0	8.28%	20,305,097	265,506,126	265,506,126	19,249,194	38,498,388	0	265,506,126
47	107	0	0	36.09%	95,815,851	361,321,976	361,321,976	26,195,843	52,391,687	0	361,321,976

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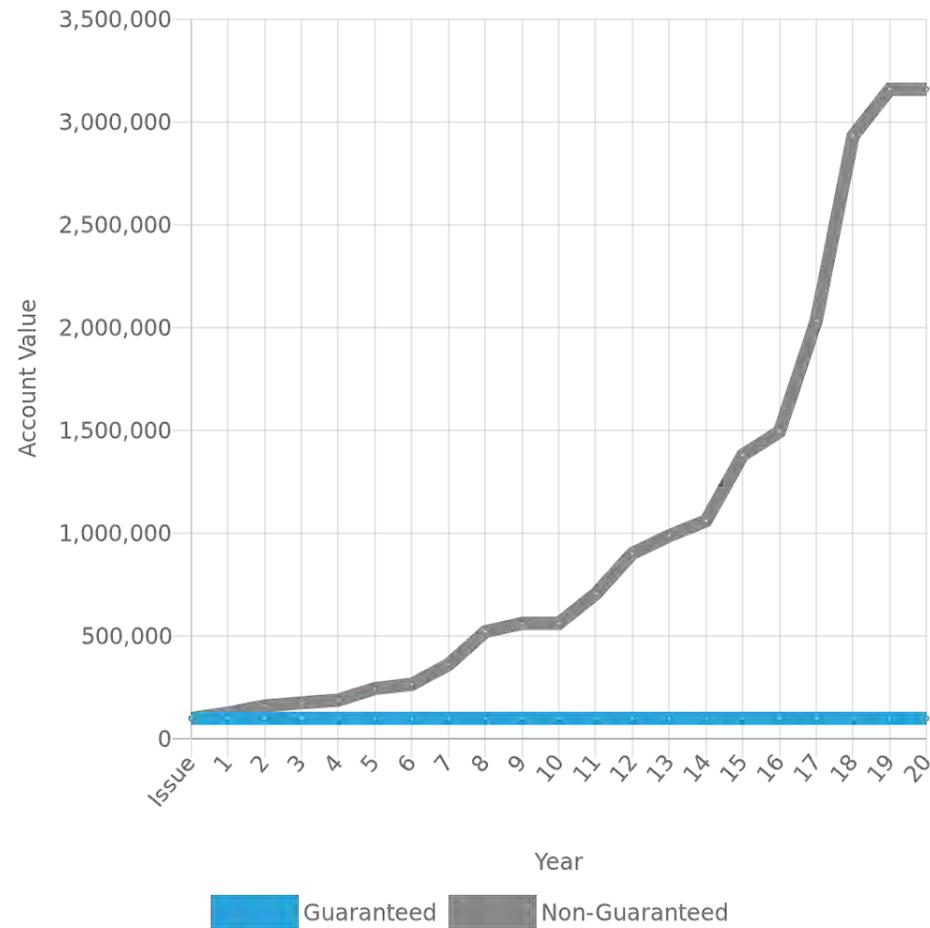


NON-GUARANTEED POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)											ANNUAL EFFECTIVE RATE: 18.85%
END OF YEAR	OWNER AGE	PREMIUM	ANNUAL WITHDRAWAL	INTEREST CREDIT RATE	INTEREST CREDIT AMOUNT	ACCOUNT VALUE	CASH VALUE**	LIFETIME WITHDRAWAL	WELLNESS WITHDRAWAL	TOTAL WITHDRAWALS	TOTAL BENEFIT*
48	108	0	0	44.16%	159,559,785	520,881,761	520,881,761	37,763,928	75,527,855	0	520,881,761
49	109	0	0	7.78%	40,508,975	561,390,735	561,390,735	40,700,828	81,401,657	0	561,390,735
50	110	0	0	0.00%	0	561,390,735	561,390,735	N/A	N/A	0	561,390,735
<b>Totals</b>		<b>100,000</b>	<b>0</b>		<b>561,290,735</b>						

\* Total Benefit is the Death Benefit plus total withdrawals received.  
 \*\* Cash Value assumes MVA Percentage of 100%. See Possible Implications of MVA on page 19.  
 \*\*\* Wellness Withdrawals are available for up to 5 consecutive years with proof of inability to perform 2/6 Activities of Daily Living.

**AGGREGATE 20-YEAR POLICY VALUES (MOST RECENT PERIOD: 12/31/2012 – 12/31/2022)**

**Policy Value Comparison**

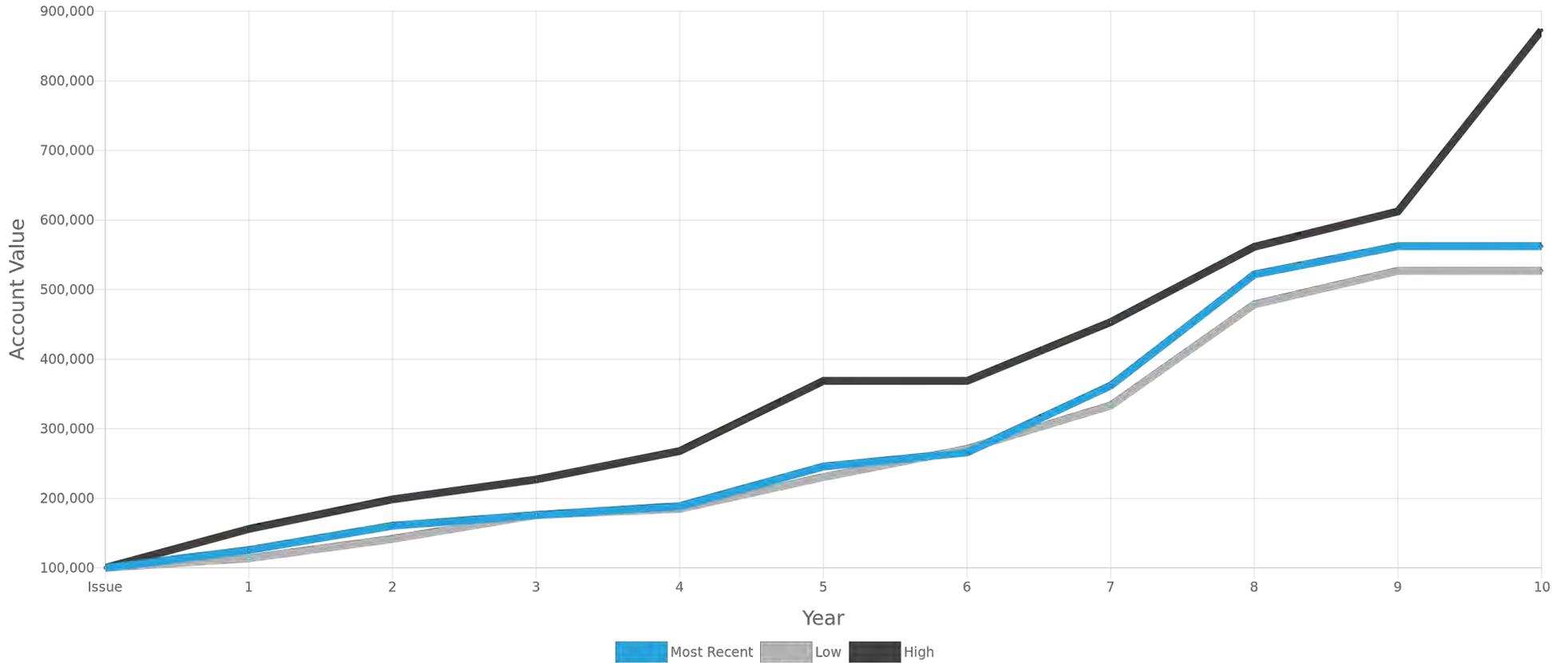


**NON-GUARANTEED AGGREGATE POLICY VALUES – THEORETICAL HISTORICAL INDEX PERIOD COMPARISON [MOST RECENT, LOW, HIGH]**

Policy Year	MOST RECENT			LOW			HIGH		
	Interest Credit Rate	Account Value	Lifetime Withdrawal	Interest Credit Rate	Account Value	Lifetime Withdrawal	Interest Credit Rate	Account Value	Lifetime Withdrawal
Issue	N/A	100,000	N/A	N/A	100,000	N/A	N/A	100,000	N/A
1	25.43%	125,428	5,456	13.73%	113,727	4,947	55.88%	155,884	6,781
2	27.91%	160,437	7,139	24.44%	141,523	6,298	27.26%	198,380	8,828
3	9.60%	175,841	8,001	24.26%	175,858	8,002	14.40%	226,938	10,326
4	7.30%	188,676	8,773	5.10%	184,832	8,595	18.05%	267,905	12,458
5	30.14%	245,533	11,663	24.66%	230,413	10,945	37.59%	368,608	17,509
6	8.28%	265,866	12,894	17.57%	270,899	13,139	0.00%	368,608	17,877
7	36.09%	361,811	17,910	22.98%	333,163	16,492	22.94%	453,181	22,432
8	44.16%	521,587	26,340	43.64%	478,552	24,167	23.86%	561,324	28,347
9	7.78%	562,151	28,951	10.08%	526,780	27,129	9.05%	612,130	31,525
10	0.00%	562,151	29,513	0.00%	526,780	27,656	42.54%	872,511	45,807
<b>Annual Effective Rate</b>	<b>18.85%</b>	<b>18.85%</b>		<b>18.08%</b>	<b>18.08%</b>		<b>24.19%</b>	<b>24.19%</b>	

Index	MOST RECENT		LOW		HIGH	
	Start Date	End Date	Start Date	End Date	Start Date	End Date
S&P 500	12/31/2012	12/31/2022	02/15/2006	02/15/2016	03/05/2009	03/05/2019
S&P 500 Duo Swift	12/31/2012	12/31/2022	10/02/2012	10/02/2022	11/25/2011	11/25/2021
Barclays Atlas 5	12/31/2012	12/31/2022	12/31/2012	12/31/2022	03/23/2005	03/23/2015
CS RavenPack AI	12/31/2012	12/31/2022	09/27/2012	09/27/2022	02/10/2010	02/10/2020
Nasdaq Generations 5	12/31/2012	12/31/2022	10/16/2012	10/16/2022	02/10/2010	02/10/2020

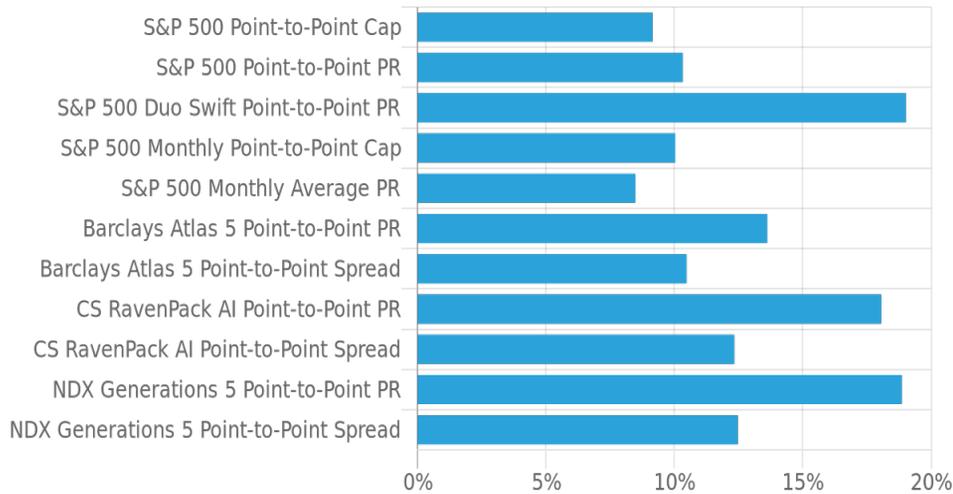
**NON-GUARANTEED AGGREGATE POLICY VALUES – THEORETICAL HISTORICAL INDEX PERIOD COMPARISON [MOST RECENT, LOW, HIGH]**



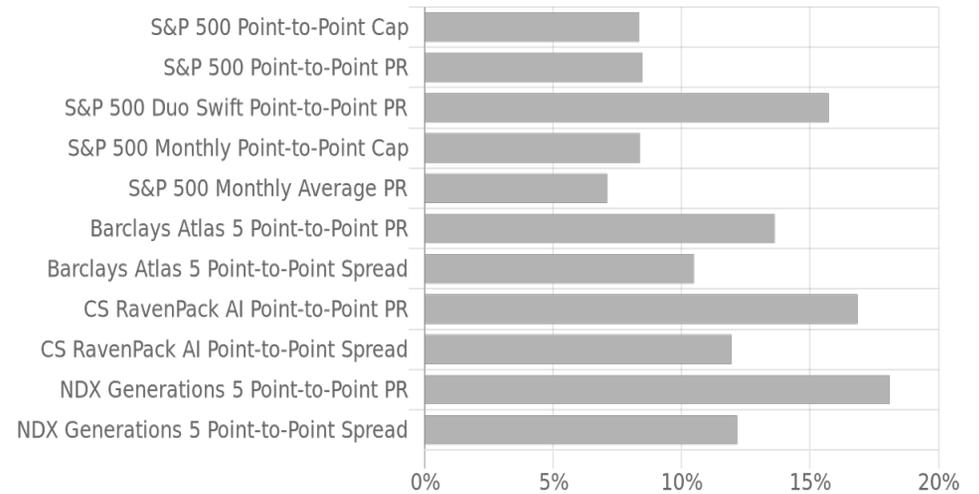
Index	MOST RECENT		LOW		HIGH	
	Start Date	End Date	Start Date	End Date	Start Date	End Date
S&P 500	12/31/2012	12/31/2022	02/15/2006	02/15/2016	03/05/2009	03/05/2019
S&P 500 Duo Swift	12/31/2012	12/31/2022	10/02/2012	10/02/2022	11/25/2011	11/25/2021
Barclays Atlas 5	12/31/2012	12/31/2022	12/31/2012	12/31/2022	03/23/2005	03/23/2015
CS RavenPack AI	12/31/2012	12/31/2022	09/27/2012	09/27/2022	02/10/2010	02/10/2020
Nasdaq Generations 5	12/31/2012	12/31/2022	10/16/2012	10/16/2022	02/10/2010	02/10/2020

**NON-GUARANTEED AGGREGATE POLICY VALUES – THEORETICAL HISTORICAL INDEX PERIOD COMPARISON [MOST RECENT, LOW, HIGH]**

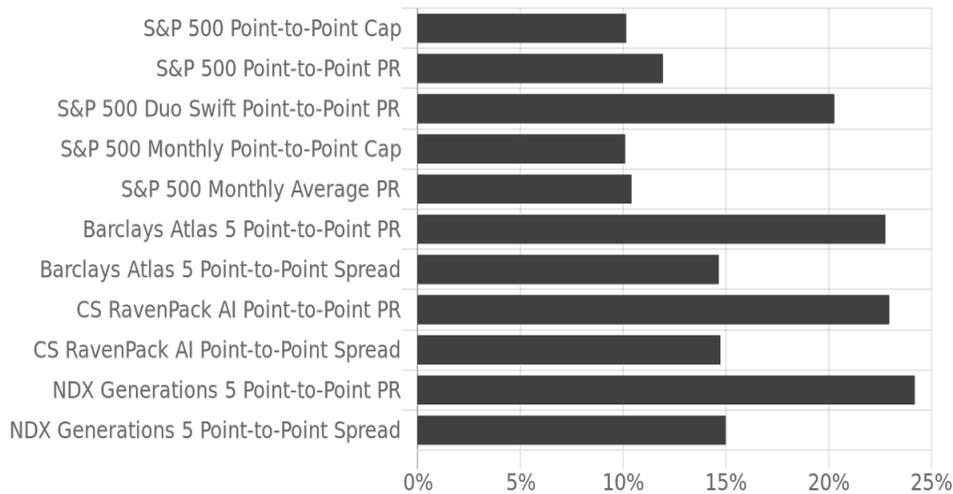
Recent 10 Years



Low 10 Years



High 10 Years



Summary of Index Periods

Index	MOST RECENT	LOW	HIGH
<b>S&amp;P 500</b>	12/31/2012 – 12/31/2022	02/15/2006 – 02/15/2016	03/05/2009 – 03/05/2019
<b>S&amp;P 500 Duo Swift</b>	12/31/2012 – 12/31/2022	10/02/2012 – 10/02/2022	11/25/2011 – 11/25/2021
<b>Barclays Atlas 5</b>	12/31/2012 – 12/31/2022	12/31/2012 – 12/31/2022	03/23/2005 – 03/23/2015
<b>CS RavenPack AI</b>	12/31/2012 – 12/31/2022	09/27/2012 – 09/27/2022	02/10/2010 – 02/10/2020
<b>Nasdaq Generations 5</b>	12/31/2012 – 12/31/2022	10/16/2012 – 10/16/2022	02/10/2010 – 02/10/2020

**NDX GENERATIONS 5 POINT-TO-POINT PR (100.00% ALLOCATION)  
THEORETICAL HISTORICAL INDEX PERIOD COMPARISON [MOST RECENT, LOW, HIGH]**

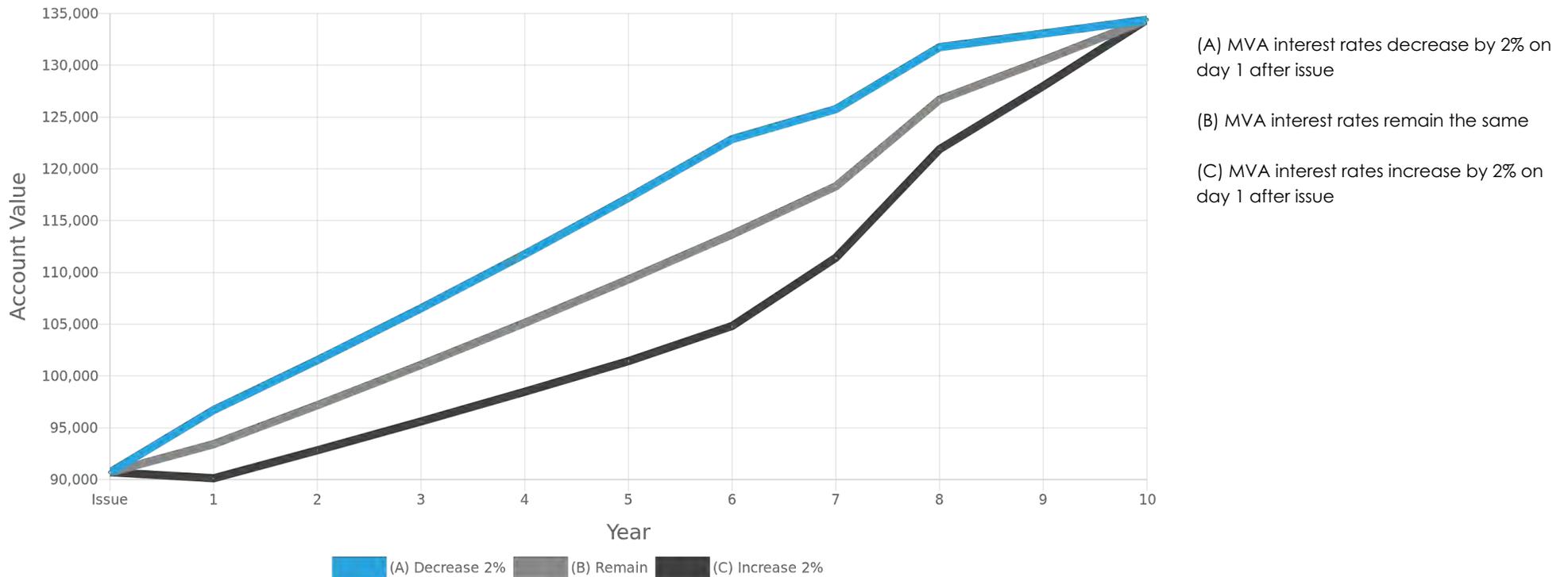
Policy Year	MOST RECENT 12/31/2012 – 12/31/2022			LOW 10/16/2012 – 10/16/2022			HIGH 02/10/2010 – 02/10/2020		
	Nasdaq Generations 5 Gain	Interest Credit Rate	Account Value	Nasdaq Generations 5 Gain	Interest Credit Rate	Account Value	Nasdaq Generations 5 Gain	Interest Credit Rate	Account Value
Issue	N/A	N/A	100,000	N/A	N/A	100,000	N/A	N/A	100,000
1	8.77%	25.43%	125,428	4.73%	13.73%	113,727	19.27%	55.88%	155,884
2	9.62%	27.91%	160,437	8.43%	24.44%	141,523	9.40%	27.26%	198,380
3	3.31%	9.60%	175,841	8.37%	24.26%	175,858	4.96%	14.40%	226,938
4	2.52%	7.30%	188,676	1.76%	5.10%	184,832	6.22%	18.05%	267,905
5	10.39%	30.14%	245,533	8.50%	24.66%	230,413	12.96%	37.59%	368,608
6	2.86%	8.28%	265,866	6.06%	17.57%	270,899	-0.57%	0.00%	368,608
7	12.44%	36.09%	361,811	7.93%	22.98%	333,163	7.91%	22.94%	453,181
8	15.23%	44.16%	521,587	15.05%	43.64%	478,552	8.23%	23.86%	561,324
9	2.68%	7.78%	562,151	3.48%	10.08%	526,780	3.12%	9.05%	612,130
10	-7.35%	0.00%	562,151	-6.96%	0.00%	526,780	14.67%	42.54%	872,511
<b>Annual Effective Rate</b>	<b>5.86%</b>	<b>18.85%</b>	<b>18.85%</b>	<b>5.59%</b>	<b>18.08%</b>	<b>18.08%</b>	<b>8.48%</b>	<b>24.19%</b>	<b>24.19%</b>

**MARKET VALUE ADJUSTMENT (MVA) EXAMPLE**

An MVA is part of your annuity and may affect your cash value. Typically, if you take a full or partial withdrawal that incurs withdrawal charges and interest rates have increased since you purchased your annuity, your cash value will decrease. If interest rates have decreased since you purchased your annuity, your cash value will increase.

The information provided below is designed to help you understand how a change in interest rates could impact the MVA and the cash value of your annuity policy. An MVA may be positive or negative and is applied whenever a withdrawal charge is applied to your policy. An MVA will never apply if a withdrawal charge does not apply.

The below graph shows cash values for a sample premium of \$100,000 and a hypothetical credited rate of 3.00% for an annuity policy with a 10-year withdrawal charge schedule. It is for demonstration purposes only and is not intended to reflect actual future performance of any given annuity policy.





**ADDITIONAL INFORMATION**

This illustration is hypothetical and is designed to help you better understand how the annuity product you are considering works. This illustration is not intended to indicate actual performance or to predict future results. The hypothetical, non-guaranteed values shown are calculated in reference to the theoretical historical performance of the applicable index as indicated. This illustration assumes non-guaranteed adjustments as of the assumed Issue Date and referenced caps, participation rates and spreads are subject to change. It is likely that the applicable index will not repeat theoretical historical performance and that the non-guaranteed elements will change over time. This means that actual non-guaranteed policy values may either be higher or lower than those shown in this illustration.

Please refer to the Certificate of Disclosure and Buyer's Guide for more details.

Fixed indexed annuities are not a direct investment in the stock market. They are long term insurance products with guarantees backed by the issuing company. They provide the potential for interest to be credited based in part on the performance of specific indices, without the risk of loss of premium due to market downturns or fluctuation.

Guarantees provided by annuities are subject to the financial strength of the issuing insurance company; not guaranteed by any bank or the FDIC.

Basic Tax Information

Under current tax law, annuities provide the benefit of tax deferred accumulation. As the Account Value of your policy grows, you do not have to pay income tax on the interest credited to the policy until it is withdrawn or paid as a death benefit. The effect of income taxes, or any applicable tax penalties, is not reflected in this illustration. Any applicable taxes or penalties would reduce the net amount that you actually receive. Withdrawals taken prior to age 59 1/2 may be subject to IRS penalties. The Account Value will be reduced for premium taxes as required by the state of residence. These taxes are not reflected in illustrated values.

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**ADDITIONAL INFORMATION (CONTINUED)**Barclays Disclosures

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**ADDITIONAL INFORMATION (CONTINUED)**

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Experience  
the Power of  
Collaborative  
Thinking

*A Hypothetical Illustration of:*

## **Accelerator Plus® 14**

### *Flexible Premium Fixed Index Deferred Annuity*

Issued by Fidelity & Guaranty Life® Insurance Company (the "Company"), 801 Grand Ave, Des Moines, IA 50309, <http://www.fglife.com>.

Form numbers: ACI-1018(06-11), API-1018(06-11); et al.

ADV1956 18-0208

*Prepared For:*

New Client  
Male, Age 60

*Prepared By:*

Steve DeJohn  
2001 Butterfield Rd  
Downers Grove, IL 60515-1011  
(630) 716-2200

This is a hypothetical illustration only, and not a contract. This hypothetical illustration is not an indication of the annuity's past or future performance. It is hypothetical and is intended solely to show how different crediting options affect your annuity. Interest rates, Caps, Spreads, Participation Rates, charges and other values are subject to change by the insurer and are not guaranteed unless clearly labeled as guaranteed. Actual results will be higher or lower than what is shown in this hypothetical illustration but will not be less than the minimum guarantees. Guarantees are backed by the financial strength and claims-paying ability of the issuing company.



Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

## Hypothetical Illustration Information

### What is the Accelerator Plus 14 annuity?

Accelerator Plus 14 is a flexible Premium fixed index deferred annuity that offers protection of minimum guarantees as well as interest crediting options that offer high accumulation potential and diverse liquidity and payout options. The annuity offers a performance driven Enhanced Guaranteed Minimum Withdrawal Benefit (EGMWB) Rider packaged with a Vesting Premium Bonus. The Premium Bonus including any interest earned on that amount is credited to your Account Value as it vests over a 14-year term. Once any portion of the Premium Bonus and any interest thereon vests, it becomes part of the Vested Account Value which is available for surrender or withdrawal. Unvested Premium Bonus is not available for surrender or withdrawal. The Vested Account Value is available to you at any time for withdrawals or surrender, but withdrawals above the Free Withdrawal amount will be subject to Surrender Charges and a Market Value Adjustment. Accelerator Plus 14's Account Value grows based on the Fixed Interest Option (if elected) and can potentially grow over time through the use of twenty-three Indexed Interest Crediting Options linked to the Barclays Trailblazer Sectors 5 Index, the GS Global Factor Index, the S&P 500® Index, CIBC Balanced Asset 5™ Index, CIBC Balanced Asset 10™ Index, and BlackRock Market Advantage Index™.

Accelerator Plus 14's innovative EGMWB Rider provides a lifetime level income amount known as the Guaranteed Withdrawal Payment. The Guaranteed Withdrawal Payment amount is guaranteed for life as long as no Excess Withdrawals are taken. Excess Withdrawals will reduce the Guaranteed Withdrawal Payment amount and in some cases reduce it to zero, terminating the contract. The EGMWB Rider includes a feature that guarantees a higher payment stream in the event you become Impaired and the Account Value is greater than zero. This benefit is known as Impairment Multiplier. If you are a single annuitant, the Guaranteed Withdrawal Payment will be multiplied by 2.0. If there are joint annuitants, the Guaranteed Withdrawal Payment will be multiplied by 1.5. Subject to additional limitations, in order to receive the Impairment Multiplier, you must be certified by a physician as Impaired and expected to be permanently unable to perform at least two out of six activities of daily living. See rider details. Feature is subject to availability.

In the event of any owner's death, the Account Value is available with several payout options including a lump sum Death Benefit which includes 100% of any Premium Bonus regardless of the portion vested at the time the Death Benefit becomes payable.

**For more information about these features, limitations and charges of the Accelerator Plus 14 annuity, as well as an explanation of the capitalized terms referred to herein, please refer to the Narrative Summary on page 14 of this hypothetical illustration.** Please also read the Consumer Brochure, Statement of Understanding and the Buyer's Guide for additional information. It is important to note that the exact terms of your annuity are contained in the annuity contract and any attached riders, which control the Company's contractual obligations.



Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

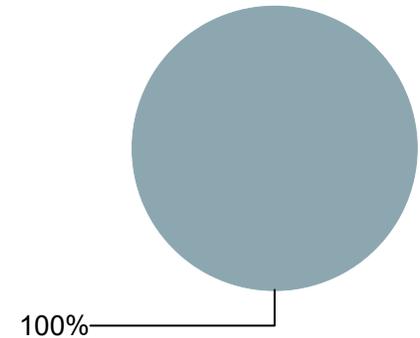
The current rates, Participation Rates, Caps and Spreads referenced in the chart below are guaranteed for the initial Index Crediting Period. After the initial Index Crediting Period, renewal rates will be declared. The Fixed rate, Participation Rates and the Cap rates will never be less than the guaranteed rates and the Spread rate will never be higher than the guaranteed Spread rate. This hypothetical illustration is based on the following allocation percentages and information that you entered and assumes that such information and allocations remained the same throughout the entire duration shown. If different information or allocations were entered, this hypothetical illustration would reflect different information. Rates displayed are current rates as of the date of this hypothetical illustration.

Applicable Vesting Premium Bonus: \$10,000



Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

Premium Allocation and Current Rate Assumption Indexed Interest Crediting Options	Charge	Participation		Cap / Rate / Spread		Allocation
		Guaranteed	Current	Guaranteed	Current	
CIBC Balanced Asset 5™ Index 1-YR Point-to-Point with Spread and PAR	0.00%	100.00%	290.00%	4.00%	1.25%	0%
CIBC Balanced Asset 5™ Index 2-YR Point-to-Point with Spread and PAR	0.00%	100.00%	330.00%	4.00%	0.00%	0%
GS Global Factor Index 1-Year Pt-to-Pt PAR	0.00%	45.00%	210.00%	N/A	N/A	0%
GS Global Factor Index 2-Year Pt-to-Pt Spread and PAR	0.00%	100.00%	310.00%	4.00%	0.00%	0%
CIBC Balanced Asset 10™ Index 1-YR Annual Point-to-Point with PAR	0.00%	25.00%	110.00%	N/A	N/A	0%
CIBC Balanced Asset 10™ Index 1-YR Point-to-Point with Spread and PAR	0.00%	45.00%	205.00%	10.00%	5.50%	0%
CIBC Balanced Asset 10™ Index 2-YR Point-to-Point with Spread and PAR	0.00%	45.00%	235.00%	10.00%	5.00%	0%
S&P 500® Index One Year Monthly Point-to-Point with a Cap	0.00%	100.00%	100.00%	1.00%	3.10%	0%
S&P 500® Index One Year Annual Point-to-Point with a Cap	0.00%	100.00%	100.00%	1.00%	9.75%	0%
S&P 500® Index One Year Fixed Declared Rate on Gain	0.00%	N/A	N/A	1.00%	7.50%	0%
Barclays Trailblazer Sectors 5 Index Two Year Point-to-Point with a Spread	0.00%	100.00%	285.00%	5.00%	0.00%	0%
BlackRock Market Advantage Index™ 1-YR Annual Point-to-Point with PAR	0.00%	30.00%	160.00%	N/A	N/A	0%
BlackRock Market Advantage Index™ 2-YR Point-to-Point with Spread and PAR	0.00%	100.00%	225.00%	3.50%	0.00%	0%
CIBC Balanced Asset 5™ Index 1-YR Annual Point-to-Point With PAR	1.25%	100.00%	290.00%	N/A	N/A	0%
CIBC Balanced Asset 5™ Index 2-YR Point-to-Point with PAR	1.25%	100.00%	380.00%	N/A	N/A	0%
GS Global Factor Index 1-Year Pt-to-Pt PAR	1.25%	100.00%	275.00%	N/A	N/A	0%
GS Global Factor Index 2-Year Pt-to-Pt PAR	1.25%	100.00%	355.00%	N/A	N/A	0%
CIBC Balanced Asset 10™ Index 2-YR Point-to-Point with Spread and PAR	1.25%	75.00%	275.00%	10.00%	5.00%	100%
S&P 500® Index One Year Annual Point-to-Point with PAR	1.25%	10.00%	50.00%	N/A	N/A	0%
S&P 500® Index One Year Monthly Point-to-Point with a Cap	1.25%	100.00%	100.00%	1.00%	3.85%	0%
S&P 500® Index One Year Annual Point-to-Point with a Cap	1.25%	100.00%	100.00%	1.00%	13.00%	0%
S&P 500® Index One Year Fixed Declared Rate on Gain	1.25%	N/A	N/A	1.00%	9.75%	0%
Barclays Trailblazer Sectors 5 Index Two Year Point-to-Point with a Spread	1.25%	100.00%	330.00%	5.00%	0.00%	0%
Fixed	N/A	N/A	N/A	1.50%	4.50%	0%





Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

## **Additional Benefits:**

### **Enhanced Guaranteed Withdrawal Benefit Rider:**

- Rider Charge: 1.15%
- Annuitant Type: Single Annuitant



Product: Accelerator Plus 14  
Prepared For: New Client  
Initial Premium: \$100,000 Qualified  
State of Issue: MD  
Assumed Issue Date: September 22, 2023  
Issue Age: 60

## What does this hypothetical illustration tell you?

To help explain how this annuity works, this hypothetical illustration shows annuity contract values under the following scenarios: 1) guaranteed values that show minimum values; 2) non-guaranteed values based on interest options selected; and 3) non-guaranteed values based on historical index performance over most recent 10 years, the lowest and highest 10-year index movement over the last 20 years. For information on the column headings that follow in this hypothetical illustration please refer to the column headings explanation of the Narrative Summary found on page 14.

This hypothetical illustration assumes the index will repeat historical performance and that the annuity's current non-guaranteed elements, such as Caps, Spreads, Participation Rates and other interest crediting adjustments **will not** change. It is likely that the index **will not** repeat historical performance, the non-guaranteed elements **will** change, and actual values will be higher or lower than those in this hypothetical illustration; however, actual values will not be less than the minimum guarantees. Except where explicitly stated, the values in this hypothetical illustration are **not** guarantees or even estimates of the amounts you can expect from your annuity.

### Interest Crediting Assumptions - Guaranteed Rates

The Aggregate Summary for Account Value, Vested Account Value, Minimum Guaranteed Surrender Value, Surrender Value and Death Benefit are based on Guaranteed Rates and assumes the guaranteed minimum 0.00% interest credit in all Contract Years for Premium allocated to an Indexed Interest Crediting Option. Premium allocated to the Fixed Interest Option is credited with the declared interest rate above for the first Contract Year and the guaranteed rate of 1.50%, thereafter.

### Interest Crediting Assumptions - Current Rates

The Aggregate Summary for Account Value, Vested Account Value, Minimum Guaranteed Surrender Value, Surrender Value and Death Benefit are based on Current Rates and assumes that the Indexed Interest Crediting Options listed will perform in 10 year cycles exactly as it has over the past 10 calendar years and that the current declared minimum rates shown earlier in the hypothetical illustration for both the Indexed Interest Crediting Options and the Fixed Interest Option will remain the same for all Contract Years. It is likely that the index **will not** repeat historical performance, the non-guaranteed elements **will** change, and actual values **will** be higher or lower than those in this hypothetical illustration; however, actual values will not be less than the minimum guarantees or higher than the maximum guarantees.



Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

### Hypothetical Aggregate Summary Based on Guaranteed Rates

Contract Year	Age	Annual Premium	Annual Withdrawal	Account Value		Vested	Minimum	Surrender Value	Performance Multiplier	EGMWB Income Base	Guaranteed Withdrawal Percentage	Guaranteed Withdrawal Payment	Impairment Multiplier	Death Benefit
				Account Value	Interest Crediting Rate	Account Value	Guaranteed Surrender Value							
1	61	100,000	0	107,313	0.00%	98,013	88,812	88,812	5%	112,679	4.50%	5,071	0	107,313
2	62	0	0	105,956	0.00%	97,356	90,145	90,145	10%	116,551	4.50%	5,245	0	105,956
3	63	0	0	103,248	0.00%	95,348	91,497	91,497	15%	118,735	4.50%	5,343	10,686	103,248
4	64	0	0	101,823	0.00%	94,723	92,869	92,869	20%	122,187	4.50%	5,498	10,997	101,823
5	65	0	0	99,082	0.00%	92,682	94,262	94,262	25%	127,628	5.00%	6,381	12,763	99,082
6	66	0	0	97,541	0.00%	91,841	95,676	95,676	30%	134,010	5.00%	6,700	13,401	97,541
7	67	0	0	94,704	0.00%	89,704	97,111	97,111	35%	140,710	5.00%	7,036	14,071	97,111
8	68	0	0	93,005	0.00%	88,705	98,568	98,568	40%	147,746	5.00%	7,387	14,775	98,568
9	69	0	0	90,058	0.00%	86,458	100,047	100,047	45%	155,133	5.00%	7,757	15,513	100,047
10	70	0	0	88,185	0.00%	85,285	101,547	101,547	50%	162,889	5.50%	8,959	17,918	101,547
		<b>100,000</b>	<b>0</b>											
11	71	0	0	85,209	0.00%	83,109	103,071	103,071	50%	162,889	5.50%	8,959	17,918	103,071
12	72	0	0	83,336	0.00%	81,936	104,617	104,617	50%	162,889	5.50%	8,959	17,918	104,617
13	73	0	0	80,421	0.00%	79,721	106,186	106,186	50%	162,889	5.50%	8,959	17,918	106,186
14	74	0	0	78,548	0.00%	78,548	107,779	107,779	50%	162,889	5.50%	8,959	17,918	107,779
15	75	0	0	75,693	0.00%	75,693	109,395	109,395	50%	162,889	6.00%	9,773	19,547	109,395
16	76	0	0	73,820	0.00%	73,820	111,036	111,036	50%	162,889	6.00%	9,773	19,547	111,036
17	77	0	0	71,024	0.00%	71,024	112,702	112,702	50%	162,889	6.00%	9,773	19,547	112,702
18	78	0	0	69,150	0.00%	69,150	114,392	114,392	50%	162,889	6.00%	9,773	19,547	114,392
19	79	0	0	66,413	0.00%	66,413	116,108	116,108	50%	162,889	6.00%	9,773	19,547	116,108
20	80	0	0	64,540	0.00%	64,540	117,850	117,850	50%	162,889	6.50%	10,588	21,176	117,850
		<b>100,000</b>	<b>0</b>											
21	81	0	0	61,860	0.00%	61,860	119,618	119,618	50%	162,889	6.50%	10,588	21,176	119,618
22	82	0	0	59,986	0.00%	59,986	121,412	121,412	50%	162,889	6.50%	10,588	21,176	121,412
23	83	0	0	57,363	0.00%	57,363	123,233	123,233	50%	162,889	6.50%	10,588	21,176	123,233
24	84	0	0	55,490	0.00%	55,490	125,081	125,081	50%	162,889	6.50%	10,588	21,176	125,081
25	85	0	0	52,923	0.00%	52,923	126,958	126,958	50%	162,889	7.00%	11,402	22,805	126,958

- Surrender Value does not include applicable Market Value Adjustments (MVA). See possible implications on your Surrender Value on the Market Value Adjustment page in this hypothetical illustration.
- Income Base assumes Guaranteed Withdrawal Payment was taken, not the Impairment Multiplier.
- Subject to additional restrictions/limitations. See Narrative Summary on page 14 for additional information.



Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

### Hypothetical Aggregate Summary Based on Guaranteed Rates

Contract Year	Age	Annual Premium	Annual Withdrawal	Account Value		Vested	Minimum	Surrender Value	Performance Multiplier	EGMWB Income Base	Guaranteed Withdrawal Percentage	Guaranteed Withdrawal Payment	Impairment Multiplier	Death Benefit
				Account Value	Interest Crediting Rate	Account Value	Guaranteed Surrender Value							
26	86	0	0	51,050	0.00%	51,050	128,862	128,862	50%	162,889	7.00%	11,402	22,805	128,862
27	87	0	0	48,539	0.00%	48,539	130,795	130,795	50%	162,889	7.00%	11,402	22,805	130,795
28	88	0	0	46,665	0.00%	46,665	132,757	132,757	50%	162,889	7.00%	11,402	22,805	132,757
29	89	0	0	44,209	0.00%	44,209	134,748	134,748	50%	162,889	7.00%	11,402	22,805	134,748
30	90	0	0	42,336	0.00%	42,336	136,769	136,769	50%	162,889	7.00%	11,402	22,805	136,769
		<b>100,000</b>	<b>0</b>											
31	91	0	0	39,933	0.00%	39,933	138,821	138,821	50%	162,889	7.00%	11,402	22,805	138,821
32	92	0	0	38,060	0.00%	38,060	140,903	140,903	50%	162,889	7.00%	11,402	22,805	140,903
33	93	0	0	35,711	0.00%	35,711	143,017	143,017	50%	162,889	7.00%	11,402	22,805	143,017
34	94	0	0	33,838	0.00%	33,838	145,162	145,162	50%	162,889	7.00%	11,402	22,805	145,162
35	95	0	0	31,542	0.00%	31,542	147,339	147,339	50%	162,889	7.00%	11,402	22,805	147,339
36	96	0	0	29,668	0.00%	29,668	149,549	149,549	50%	162,889	7.00%	11,402	22,805	149,549
37	97	0	0	27,424	0.00%	27,424	151,793	151,793	50%	162,889	7.00%	11,402	22,805	151,793
38	98	0	0	25,551	0.00%	25,551	154,070	154,070	50%	162,889	7.00%	11,402	22,805	154,070
39	99	0	0	23,358	0.00%	23,358	156,381	156,381	50%	162,889	7.00%	11,402	22,805	156,381
40	100	0	0	21,485	0.00%	21,485	158,727	158,727	50%	162,889	0.00%	0	0	158,727
		<b>100,000</b>	<b>0</b>											

1. Surrender Value does not include applicable Market Value Adjustments (MVA). See possible implications on your Surrender Value on the Market Value Adjustment page in this hypothetical illustration.
2. Income Base assumes Guaranteed Withdrawal Payment was taken, not the Impairment Multiplier.
3. Subject to additional restrictions/limitations. See Narrative Summary on page 14 for additional information.



Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

**Hypothetical Aggregate Summary Based on Current Rates** (See page 6 for guaranteed values)

Contract Year	Age	Annual Premium	Annual Withdrawal	Account Value	Interest Crediting Rate	Vested Account Value	Minimum Guaranteed Surrender Value	Surrender Value <sup>1</sup>	Performance Multiplier	EGMWB Income Base <sup>2</sup>	Guaranteed Withdrawal Percentage	Guaranteed Withdrawal Payment	Impairment Multiplier <sup>3</sup>	Death Benefit
1	61	100,000	0	107,313	0.00%	98,013	88,812	88,812	5%	112,679	4.50%	5,071	0	107,313
2	62	0	0	222,857	110.33%	204,769	90,145	177,961	10%	245,143	4.50%	11,031	0	222,857
3	63	0	0	217,161	0.00%	200,545	91,497	177,586	15%	249,735	4.50%	11,238	22,476	217,161
4	64	0	0	214,164	0.00%	199,231	92,869	178,177	20%	256,997	4.50%	11,565	23,130	214,164
5	65	0	0	208,447	0.00%	194,986	94,262	176,166	25%	260,558	5.00%	13,028	26,056	208,447
6	66	0	0	239,005	16.40%	225,050	95,676	204,495	30%	310,706	5.00%	15,535	31,071	239,005
7	67	0	0	232,353	0.00%	220,112	97,111	202,327	35%	313,677	5.00%	15,684	31,368	232,353
8	68	0	0	438,323	91.12%	418,203	98,568	386,508	40%	500,000	5.00%	25,000	50,000	438,323
9	69	0	0	427,094	0.00%	410,249	100,047	384,459	45%	500,000	5.00%	25,000	50,000	427,094
10	70	0	0	421,344	0.00%	407,775	101,547	385,770	50%	500,000	5.50%	27,500	55,000	421,344
		<b>100,000</b>	<b>0</b>											
11	71	0	0	410,327	0.00%	400,501	103,071	382,515	50%	500,000	5.50%	27,500	55,000	410,327
12	72	0	0	857,291	110.33%	843,513	104,617	811,374	50%	843,513	5.50%	46,393	92,786	857,291
13	73	0	0	836,998	0.00%	830,109	106,186	807,736	50%	830,109	5.50%	45,656	91,312	836,998
14	74	0	0	827,452	0.00%	827,452	107,779	812,563	50%	827,452	5.50%	45,510	91,020	827,452
15	75	0	0	807,712	0.00%	807,712	109,395	807,712	50%	807,819	6.00%	48,469	96,938	807,712
16	76	0	0	930,888	16.40%	930,888	111,036	930,888	50%	930,888	6.00%	55,853	111,707	930,888
17	77	0	0	908,680	0.00%	908,680	112,702	908,680	50%	908,800	6.00%	54,528	109,056	908,680
18	78	0	0	1,726,220	91.12%	1,726,220	114,392	1,726,220	50%	1,726,220	6.00%	103,573	207,146	1,726,220
19	79	0	0	1,685,039	0.00%	1,685,039	116,108	1,685,039	50%	1,685,262	6.00%	101,116	202,231	1,685,039
20	80	0	0	1,665,661	0.00%	1,665,661	117,850	1,665,661	50%	1,665,881	6.50%	108,282	216,565	1,665,661
		<b>100,000</b>	<b>0</b>											
21	81	0	0	1,625,924	0.00%	1,625,924	119,618	1,625,924	50%	1,626,139	6.50%	105,699	211,398	1,625,924
22	82	0	0	3,401,108	110.33%	3,401,108	121,412	3,401,108	50%	3,401,108	6.50%	221,072	442,144	3,401,108
23	83	0	0	3,319,971	0.00%	3,319,971	123,233	3,319,971	50%	3,320,410	6.50%	215,827	431,653	3,319,971
24	84	0	0	3,281,791	0.00%	3,281,791	125,081	3,281,791	50%	3,282,225	6.50%	213,345	426,689	3,281,791
25	85	0	0	3,203,500	0.00%	3,203,500	126,958	3,203,500	50%	3,203,924	7.00%	224,275	448,549	3,203,500

1. Surrender Value does not include applicable Market Value Adjustments (MVA). See possible implications on your Surrender Value on the Market Value Adjustment page in this hypothetical illustration.

2. Income Base assumes Guaranteed Withdrawal Payment was taken, not the Impairment Multiplier.

3. Subject to additional restrictions/limitations. See Narrative Summary on page 14 for additional information.



Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

**Hypothetical Aggregate Summary Based on Current Rates** (See page 6 for guaranteed values)

Contract Year	Age	Annual Premium	Annual Withdrawal	Account Value		Vested	Minimum	Surrender Value <sup>1</sup>	Performance Multiplier	EGMWB	Guaranteed	Guaranteed	Impairment Multiplier <sup>3</sup>	Death Benefit
				Account Value	Interest Crediting Rate	Account Value	Guaranteed Surrender Value			Income Base <sup>2</sup>	Withdrawal Percentage	Withdrawal Payment		
26	86	0	0	3,692,034	16.40%	3,692,034	128,862	3,692,034	50%	3,692,034	7.00%	258,442	516,885	3,692,034
27	87	0	0	3,603,955	0.00%	3,603,955	130,795	3,603,955	50%	3,604,432	7.00%	252,310	504,621	3,603,955
28	88	0	0	6,846,434	91.12%	6,846,434	132,757	6,846,434	50%	6,846,434	7.00%	479,250	958,501	6,846,434
29	89	0	0	6,683,104	0.00%	6,683,104	134,748	6,683,104	50%	6,683,988	7.00%	467,879	935,758	6,683,104
30	90	0	0	6,606,248	0.00%	6,606,248	136,769	6,606,248	50%	6,607,122	7.00%	462,499	924,997	6,606,248
		<b>100,000</b>	<b>0</b>											
31	91	0	0	6,448,648	0.00%	6,448,648	138,821	6,448,648	50%	6,449,501	7.00%	451,465	902,930	6,448,648
32	92	0	0	13,489,282	110.33%	13,489,282	140,903	13,489,282	50%	13,489,282	7.00%	944,250	1,888,499	13,489,282
33	93	0	0	13,167,478	0.00%	13,167,478	143,017	13,167,478	50%	13,169,220	7.00%	921,845	1,843,691	13,167,478
34	94	0	0	13,016,052	0.00%	13,016,052	145,162	13,016,052	50%	13,017,774	7.00%	911,244	1,822,488	13,016,052
35	95	0	0	12,705,538	0.00%	12,705,538	147,339	12,705,538	50%	12,707,219	7.00%	889,505	1,779,011	12,705,538
36	96	0	0	14,643,133	16.40%	14,643,133	149,549	14,643,133	50%	14,643,133	7.00%	1,025,019	2,050,039	14,643,133
37	97	0	0	14,293,802	0.00%	14,293,802	151,793	14,293,802	50%	14,295,693	7.00%	1,000,699	2,001,397	14,293,802
38	98	0	0	27,153,936	91.12%	27,153,936	154,070	27,153,936	50%	27,153,936	7.00%	1,900,776	3,801,551	27,153,936
39	99	0	0	26,506,145	0.00%	26,506,145	156,381	26,506,145	50%	26,509,651	7.00%	1,855,676	3,711,351	26,506,145
40	100	0	0	26,201,324	0.00%	26,201,324	158,727	26,201,324	50%	26,204,790	0.00%	0	0	26,201,324
		<b>100,000</b>	<b>0</b>											

1. Surrender Value does not include applicable Market Value Adjustments (MVA). See possible implications on your Surrender Value on the Market Value Adjustment page in this hypothetical illustration.
2. Income Base assumes Guaranteed Withdrawal Payment was taken, not the Impairment Multiplier.
3. Subject to additional restrictions/limitations. See Narrative Summary on page 14 for additional information.



Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

## Non-Guaranteed Hypothetical Values Based on Stated Assumptions

These scenarios are intended to demonstrate how the product would function under varying performance of the Barclays Trailblazer Sectors 5 Index (BXIITBZ5), CIBC Balanced Asset 5™ Index (CIBQB05E), CIBC Balanced Asset 10™ Index (CIBQB010E), GS Global Factor Index, BlackRock Market Advantage Index™ and the S&P 500® Index. It is not a prediction of, or guarantee of future performance. Actual results are unlikely to match any of the hypothetical scenarios, and may be higher or lower depending on the actual performance of the Barclays Trailblazer Sectors 5 Index (BXIITBZ5), CIBC Balanced Asset 5™ Index (CIBQB05E), CIBC Balanced Asset 10™ Index (CIBQB010E), GS Global Factor Index, BlackRock Market Advantage Index™ and the S&P 500® Index and actual Premium applied and withdrawals taken.

It is important to note the Barclays Trailblazer Sectors 5 Index was first calculated on July 5, 2016. All index value information presented prior to this date for these two indices are created through back-testing. Back-tested performance is not actual performance; it is hypothetical. Additionally, with respect to the Barclays Trailblazer Sectors 5 Index, a notional financing cost is deducted from each index component and an index charge of 0.85% per annum and a cost equal to the 3-month US dollar LIBOR rate is deducted from the Barclays Trailblazer Sectors 5 Index.

**Scenario Assumptions:** The three hypothetical scenarios utilize historical data from the Barclays Trailblazer Sectors 5 Index (BXIITBZ5), CIBC Balanced Asset 5™ Index (CIBQB05E), CIBC Balanced Asset 10™ Index (CIBQB010E), GS Global Factor Index, BlackRock Market Advantage Index™ and the S&P 500® Index over the past 10 or 20 calendar years as follows:

### **Scenario 1 - The 'Most Recent' Scenario**

The first scenario uses values from the specified Index over the past 10 calendar years, ending on December 31, 2022.

### **Scenario 2 - The 'Low' Scenario**

The second scenario uses values from the specified Index from the 10-year period of time out of the last 20 calendar years in which the specified Index experienced the lowest average annual growth.

### **Scenario 3 - The 'High' Scenario**

The third scenario uses values from the specified Index from the 10-year period of time out of the last 20 calendar years in which the specified index experienced the highest average annual growth.

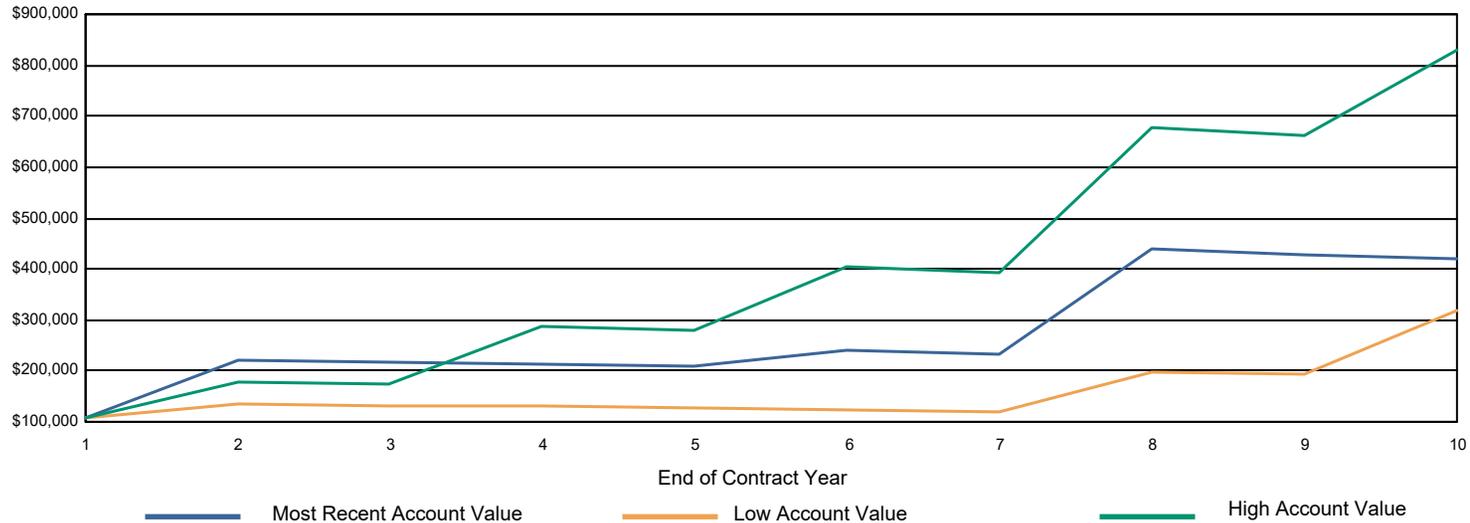


Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

## Non-Guaranteed Hypothetical Aggregate Account Performance

### Hypothetical Based on Stated Assumptions

Contract Year	'Most Recent' 12/31/2012 - 12/31/2022		'Low' Dates Vary*		'High' Dates Vary*	
	Interest Credited	Account Value	Interest Credited	Account Value	Interest Credited	Account Value
1	0.00%	107,313	0.00%	107,313	0.00%	107,313
2	110.33%	222,857	27.41%	134,998	67.07%	177,020
3	0.00%	217,161	0.00%	131,548	0.00%	172,496
4	0.00%	214,164	0.00%	129,732	68.73%	287,036
5	0.00%	208,447	0.00%	126,269	0.00%	279,373
6	16.40%	239,005	0.00%	124,381	46.66%	403,979
7	0.00%	232,353	0.00%	120,920	0.00%	393,179
8	91.12%	438,323	67.07%	198,768	74.12%	678,853
9	0.00%	427,094	0.00%	193,011	0.00%	663,014
10	0.00%	421,344	68.73%	320,049	26.53%	831,585
<b>Geometric Average Annual Growth Rate</b>	<b>16.69%**</b>	<b>15.47%</b>	<b>13.64%**</b>	<b>12.34%</b>	<b>24.72%**</b>	<b>23.59%</b>



\*See individual Index Option charts which follow.

\*\* Geometric Average of Interest Credited Rates does not reflect rider charges or applicable Premium Bonus. However, rider charges and applicable Premium Bonus are reflected in the Account Values.



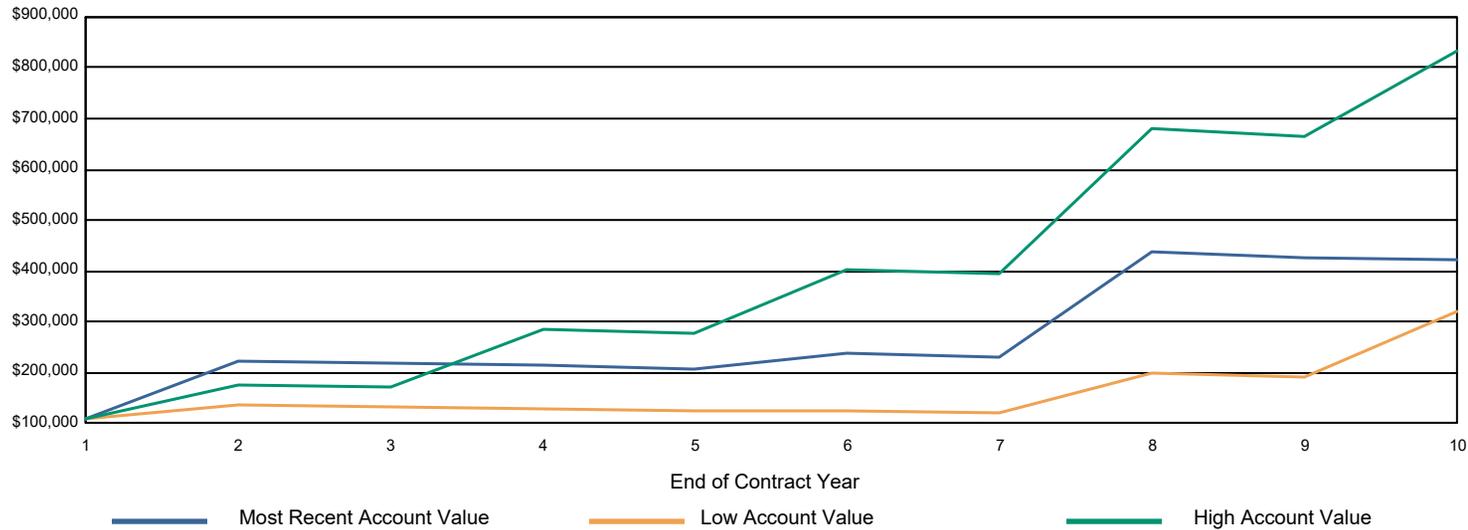
Product: **Accelerator Plus 14**  
 Prepared For: **New Client**  
 Initial Premium: **\$100,000 Qualified**  
 State of Issue: **MD**  
 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

**Non-Guaranteed Hypothetical Performance - CIBC Balanced Asset 10™ Index 2-YR Point-to-Point with Spread and Participation with a 1.25% Charge (100% Allocation)**

**Hypothetical Based on Stated Assumptions**

Contract Year	'Most Recent'			'Low'			'High'		
	Index Change	Interest Credited	Account Value	Index Change	Interest Credited	Account Value	Index Change	Interest Credited	Account Value
1	14.73%	N/A	107,313	11.44%	N/A	107,313	14.88%	N/A	107,313
2	26.49%	110.33%	222,857	3.17%	27.41%	134,998	12.63%	67.07%	177,020
3	-3.58%	N/A	217,161	3.38%	N/A	131,548	13.31%	N/A	172,496
4	8.73%	0.00%	214,164	0.17%	0.00%	129,732	14.73%	68.73%	287,036
5	21.36%	N/A	208,447	-14.51%	N/A	126,269	26.49%	N/A	279,373
6	-8.56%	16.40%	239,005	5.98%	0.00%	124,381	-3.58%	46.66%	403,979
7	25.38%	N/A	232,353	14.88%	N/A	120,920	8.73%	N/A	393,179
8	10.17%	91.12%	438,323	12.63%	67.07%	198,768	21.36%	74.12%	678,853
9	13.26%	N/A	427,094	13.31%	N/A	193,011	-8.56%	N/A	663,014
10	-20.13%	0.00%	421,344	14.73%	68.73%	320,049	25.38%	26.53%	831,585

Geometric Average Annual Growth Rate	7.75%***	16.69%**	15.47%	6.14%***	13.64%**	12.34%	11.99%***	24.72%**	23.59%
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\*\* Geometric Average of Interest Credited Rates does not reflect rider charges or applicable Premium Bonus. However, rider charges and applicable Premium Bonus are reflected in the Account Values.  
 \*\*\* The Index Change values are used to determine the "Low" and the "High" scenarios.



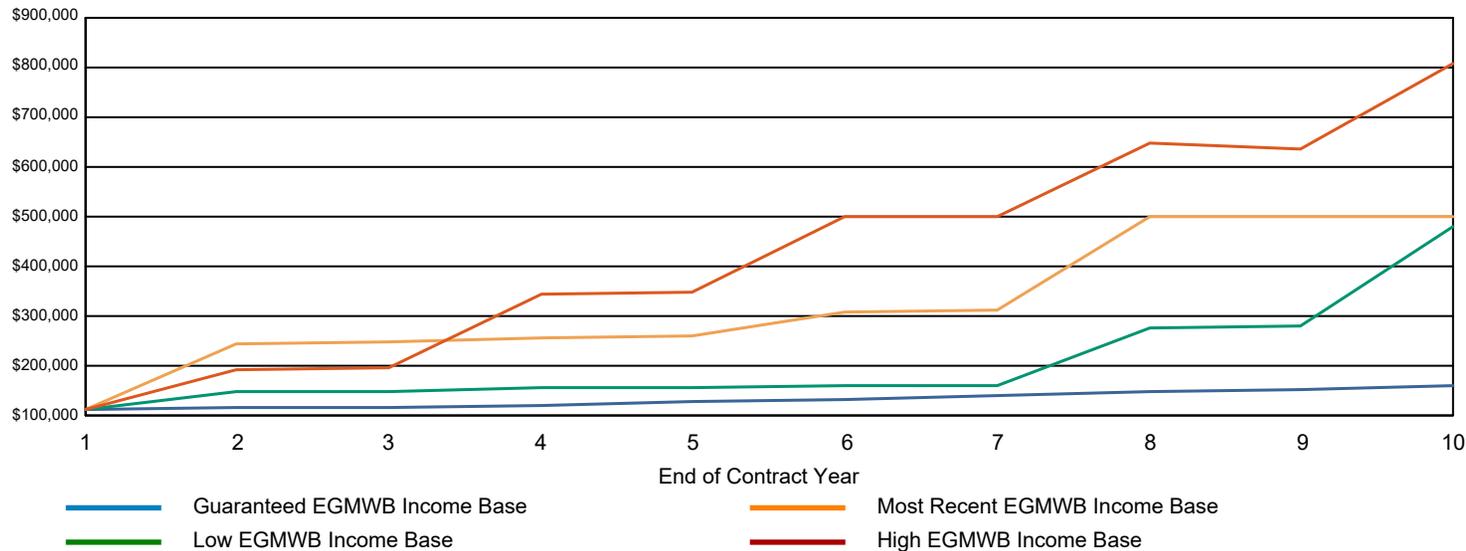
Product: Accelerator Plus 14  
 Prepared For: New Client  
 Initial Premium: \$100,000 Qualified  
 State of Issue: MD  
 Assumed Issue Date: September 22, 2023  
 Issue Age: 60

## Guaranteed and Non-Guaranteed Hypothetical Scenarios

### Guaranteed Rates

### Non-Guaranteed Hypothetical Scenarios Based on Stated Assumptions

Contract Year	Age	Guaranteed Withdrawal Percentage	'Most Recent' 12/31/2012 - 12/31/2022				'Low' Dates Vary*		'High' Dates Vary*	
			Guaranteed Income Base	Guaranteed Withdrawal Payment	Guaranteed Income Base	Guaranteed Withdrawal Payment	Guaranteed Income Base	Guaranteed Withdrawal Payment	Guaranteed Income Base	Guaranteed Withdrawal Payment
1	61	4.50%	112,679	5,071	112,679	5,071	112,679	5,071	112,679	5,071
2	62	4.50%	116,551	5,245	245,143	11,031	148,498	6,682	194,722	8,763
3	63	4.50%	118,735	5,343	249,735	11,238	151,280	6,808	198,370	8,927
4	64	4.50%	122,187	5,498	256,997	11,565	155,679	7,006	344,443	15,500
5	65	5.00%	127,628	6,381	260,558	13,028	157,837	7,892	349,216	17,461
6	66	5.00%	134,010	6,700	310,706	15,535	161,696	8,085	500,000	25,000
7	67	5.00%	140,710	7,036	313,677	15,684	163,242	8,162	500,000	25,000
8	68	5.00%	147,746	7,387	500,000	25,000	278,276	13,914	647,899	32,395
9	69	5.00%	155,133	7,757	500,000	25,000	279,865	13,993	637,099	31,855
10	70	5.50%	162,889	8,959	500,000	27,500	480,074	26,404	805,171	44,284
<b>Effective Annual Rate of Income Base Growth</b>			<b>5.00%</b>		<b>17.46%</b>		<b>16.99%</b>		<b>23.19%</b>	



\*See individual Index Option charts on the previous pages



Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

## Narrative Summary

This section provides an explanation of the column headings in the hypothetical examples and capitalized terms referred to in the hypothetical illustration.

### Contract Year

Contract Year is measured from the date of contract issue.

### Age

Age represents the owner's Age at the end of the Contract Year.

### Premium

Premium is the amount of money you pay into the contract at the beginning of the applicable Contract Year and subsequent contract anniversaries.

### Annual Withdrawal

Annual Withdrawal is the amount withdrawn from your contract after Surrender Charges (where applicable) at the beginning of the applicable Contract Year and subsequent contract anniversaries.

### Required Minimum Distribution (RMD)

A Required Minimum Distribution (RMD) is the amount that participants must begin distributing from their qualified annuity by April 1, following the year they reach age 73. RMD amounts must then be distributed each subsequent year based on the current RMD distribution calculation amounts. The RMD amount is based on the previous calendar year's ending Total Account Value and does not take into consideration the value of benefits provided by any additional riders. For purposes of this hypothetical illustration, RMDs shown here is a projected amount and could be higher or lower than what is required at the time of future distribution. If the actual RMD amount that you must withdraw is higher than the amount illustrated, the remaining Account Value and Death Benefit amounts will be correspondingly lower.

This illustration may reflect Guaranteed Withdrawal Payments pursuant to a Guaranteed Minimum Withdrawal Benefit provision. These payment amounts may not satisfy and should not be construed as the calculation for substantially equal periodic payments pursuant to Internal Revenue Code Section 72(t) or 72(q) as applicable..

### RMD Factor

RMD Factor is the factor from IRS Table III. This factor is used to calculate the Required Minimum Distribution.

### Annual RMD Withdrawal

Annual RMD Withdrawal amount is the prior calendar year 12/31 Total Account Value divided by the RMD Factor. This is the amount that is required to be withdrawn from the Total Account Value. Annual RMD Withdrawals taken to satisfy RMD requirements for this account will not be subject to Market Value Adjustments or Surrender Charges, even if the amount exceeds the Free Withdrawal amount.



Product:	<b>Accelerator Plus 14</b>
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Issue Age:	<b>60</b>

### Annual Remaining RMD

Amount of RMD that is still required after withdrawals are taken.

### Total Account Value

Total Account Value is the vested portion of the Account Value including Premium Bonus plus any interest earned on that amount.

### Account Value

Account Value equals the total value of the contract at the end of the Contract Year, reflecting any applicable Premium, vested Premium Bonus, plus any interest credited thereon; less Annual Withdrawals of any type, less Surrender Charges thereon, less rider charges and plus/minus Market Value Adjustment as applicable.

### Account Value Interest Crediting Rate

Account Value Interest Crediting Rate is the annual rate of interest credited to the Account Value and the unvested Premium Bonus.

### Vested Account Value

Vested Account Value is the vested portion of the Account Value including Premium Bonus plus any interest earned on that amount.

### Minimum Guaranteed Surrender Value (MGSV)

The Minimum Guaranteed Surrender Value is the minimum amount you would receive if you surrendered your contract in full. At any time before the Maturity Date and before any Death Benefit becomes payable, the Minimum Guaranteed Surrender Value is 87.50% of your Premium accumulated at the MGSV Accumulation Interest Rate less any amounts previously deducted from the MGSV accumulated at the MGSV Accumulation Interest Rate. The MGSV Accumulation Interest Rate can be between 1% and 3%. This value is set at issue and it is fixed for the life of the contract. This amount is the sum of the MGSV at the strategy level.

### Surrender Value

The Surrender Value is equal to the amount available upon full surrender of the contract at the end of the Contract Year, based upon the Vested Account Value less any applicable Surrender Charges, plus/minus any applicable Market Value Adjustment. The Surrender Value for the Indexed Interest Crediting Options will never be less than the Minimum Guaranteed Surrender Value under each respective option.

### Performance Multiplier

One plus the Performance Multiplier is applied to the Account Value in determining the Guaranteed Minimum Withdrawal Performance Value. The Performance Multiplier is a percentage that is initially equal to the Performance Factor set at issue. Beginning in the second Contract Year, the Performance Multiplier will increase by the Performance Factor each Contract Year for 10 years, or until age 85 or until the withdrawal begins if earlier. The Performance Factor for this annuity is 5%.

### Guaranteed Minimum Withdrawal Performance Value

The lesser of a and b, where:

- is the Premium Factor of 5 multiplied by Premium paid in Contract Year 1;
- is Account Value less Premium received after Contract Year 1; multiplied by (1 plus the Performance Multiplier).



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Issue Age:	<b>60</b>

### Income Base

The Income Base is used to determine the Guaranteed Withdrawal Payment at the beginning of the Withdrawal Period and the corresponding rider charge. The Income Base is the greater of the Guaranteed Minimum Withdrawal Performance Value and the Premium received in year 1 plus any applicable Premium Bonus growing at the Roll up rate up to the earliest of 10 Contract Years, age 85, or when the Withdrawal Period begins. The initial Roll up rate is 5.00%.

### Guaranteed Withdrawal Percentage

Guaranteed Withdrawal Percentage is the percentage of the Income Base that you will receive annually. It is determined when you begin Guaranteed Withdrawal Payments and is based on a single life.

### Guaranteed Withdrawal Payment

Guaranteed Withdrawal Payment shown is the Annual Withdrawal payment amount available at the end of the Contract Year and is set once the Withdrawal Period begins unless Excess Withdrawals are taken. It is equal to the Income Base multiplied by the applicable Guaranteed Withdrawal Percentage. The Guaranteed Withdrawal Payment is guaranteed to be paid for the applicable lifetime provided no Excess Withdrawal is taken and a life only annuity payout option is elected at maturity.

### Impairment Multiplier

Impairment Multiplier shown is the annual single annuitant Annual Withdrawal payment amount available at the end of the Contract Year. During the Withdrawal Period, the Impairment Multiplier can be triggered if certain requirements are met. The Impairment Multiplier is established at the time of impairment and equals the Guaranteed Withdrawal Payment multiplied by the applicable enhanced multiplier. Guaranteed Withdrawal Payment will be increased until or unless you are no longer impaired or the Account Value is zero. The annuitant with the impairment must be unable to perform at least 2 of the 6 activities of daily living. If the owner is a single annuitant, the Guaranteed Withdrawal Payment will be multiplied by 2.0. If there are joint annuitants, the Guaranteed Withdrawal Payments are multiplied by 1.5. The Impairment Multiplier is established at the time of impairment is approved and only decreases if there are Excess Withdrawals. The contract must have been in force for at least 3 years and the annuitant must have reached attained age 60.

### Death Benefit

Death Benefit is the total Death Benefit at the end of the Contract Year that would be payable to the contract beneficiary when the first owner or first annuitant (if the owner is a non-living entity) dies. The Death Benefit is the greater of 1) contract Account Value not reduced for any applicable Surrender Charges or 2) the Minimum Guaranteed Surrender Value on the date of the owner's death. Market Value Adjustment does not impact the Death Benefit.

### Index Credit

Interest Credited to the Account Value based on the particular scenario shown.

### Index Change

The Index Change is calculated on each Index Crediting date and is used to calculate the adjusted Index Credit. Any Index Change is calculated and applied based on the formula described in each Index Crediting option.



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Issue Age:	<b>60</b>

**This section provides information about Accelerator Plus 14 annuity benefits, features and limitations.**

**Indexed Interest Crediting Options**

Accelerator Plus 14 features twenty-three Indexed Interest Crediting Options: CIBC Balanced Asset 5™ Index 1-YR Point-to-Point with Spread and Participation, CIBC Balanced Asset 5™ Index 2-YR Point-to-Point with Spread and Participation, GS Global Factor Index 1-Year Pt-to-Pt Par Without Charge, GS Global Factor Index 2-Year Pt-to-Pt Spread and Par Without Charge, CIBC Balanced Asset 10™ Index 1-YR Point-to-Point with Participation, CIBC Balanced Asset 10™ Index 1-YR Point-to-Point with Spread and Participation, CIBC Balanced Asset 10™ Index 2-YR Point-to-Point With Spread and Participation, S&P 500® Index One Year Monthly Point-to-Point with a Cap without a Charge, S&P 500® Index One Year Annual Point-to-Point with a Cap without a Charge, S&P 500® Index One Year Fixed Declared Rate on Gain without a Charge, Barclays Trailblazer Sectors 5 Index Two Year Point-to-Point with a Spread without a Charge, BlackRock Market Advantage Index™ 1-YR Annual Point-to-Point With Participation, BlackRock Market Advantage Index™ 2-YR Point-to-Point With Spread and Participation, CIBC Balanced Asset 5™ Index 1-YR Point-to-Point with Participation with a 1.25% Charge, CIBC Balanced Asset 5™ Index 2-YR Point-to-Point with Participation with a 1.25% Charge, GS Global Factor Index 1-Year Pt-to-Pt Par With Charge, GS Global Factor Index 2-Year Pt-to-Pt Par With Charge, CIBC Balanced Asset 10™ Index 2-YR Point-to-Point with Spread and Participation with a 1.25% Charge, S&P 500® Index One Year Annual Point-to-Point with Participation Rate with a 1.25% Charge, S&P 500® Index One Year Monthly Point-to-Point with a Cap with a 1.25% Charge, S&P 500® Index One Year Annual Point-to-Point with a Cap with a 1.25% Charge, S&P 500® Index One Year Fixed Declared Rate on Gain with a 1.25% Charge and Barclays Trailblazer Sectors 5 Index Two Year Point-to-Point with a Spread with a 1.25% Charge. Accelerator Plus 14 also offers a traditional Fixed Interest Option.

Any Index Credits for the CIBC Balanced Asset 5™ Index 1-YR Point-to-Point with Spread and Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 5™ Index for a 1-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Index Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 290.00% for this option. The Participation Rate for any 1-year Index Crediting Period will never be less than 100.00% for this option. The Spread for any 1-year Index Crediting Period will never be greater than 4.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the CIBC Balanced Asset 10™ Index 1-YR Point-to-Point with Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 10™ Index for a 1-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Index Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 110.00% for this option. The Participation Rate will never be less than 25.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.



Product: **Accelerator Plus 14**  
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Issue Age: **60**

Any Index Credits for the CIBC Balanced Asset 10™ Index 1-YR Point-to-Point with Spread and Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 10™ Index for a 1-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 205.00% for this option. The Participation Rate for any 1-year Index Crediting Period will never be less than 45.00% for this option. The Spread for any 1-year Index Crediting Period will never be greater than 10.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the GS Global Factor Index 1-Year Pt-to-Pt Par Without Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the GS Global Factor Index for a 1-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Index Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 210.00% for this option. The Participation Rate will never be less than 45.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation Rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the CIBC Balanced Asset 5™ Index 2-YR Point-to-Point with Spread and Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 5™ Index for a 2-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 330.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 100.00% for this option. The Spread for any 2-year Index Crediting Period will never be greater than 4.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the S&P 500® Index One Year Monthly Point-to-Point with a Cap without a Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the monthly beginning and ending values of the S&P 500® Index during a 1-year Index Crediting Period. We add together 12 months of capped monthly index percentage changes, that result is multiplied by the applicable Participation Rate. The Participation Rate and monthly Cap rate are declared prior to each 1-year Index Crediting Period. The monthly index percentage change equals the index value of the current monthly anniversary divided by the index value on the prior monthly anniversary; minus one. A positive monthly index percentage change will be limited to a monthly Cap rate. A negative monthly index percentage change will not be subject to any floor. The monthly Cap rate for this option will never be less than 1.00%. The current Participation Rate is 100.00% for this option. The Participation Rate for any 1-year Index Crediting Period will never be less than 100.00% for this option. If the sum of the 12 monthly capped percentage changes is zero or negative, no Index Credits will be added. If the sum of the 12 monthly capped percentage changes is positive, this sum is then multiplied by the Participation Rate, then this result will be multiplied by the option's Account Value to determine the amount of index interest credited. Index Credits will never be less than zero.



Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

Any Index Credits for the S&P 500® Index One Year Annual Point-to-Point with a Cap without a Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the S&P 500® Index for a 1-year Index Crediting Period. The Participation Rate and Cap rate limit how much of any increase will be used to calculate any Index Credits. The Participation Rate and Cap rate are declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the index value at the beginning of the 1-year Index Crediting Period from the index value at the end of the 1-year Index Crediting Period and then divide that value by the index value at the beginning of the 1-year Index Crediting Period, multiplied by the Participation Rate, and then the result is subject to the applicable Cap rate. The current Participation Rate is 100.00% for this option. The Participation Rate will never be less than 100.00% for this option. The Cap rate will never be less than 1.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change limited by the annual Cap is positive, this capped percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the S&P 500® Index One Year Fixed Declared Rate on Gain without a Charge option are calculated and credited only at each contract anniversary. If the index value on the current contract anniversary is higher than the index value on the prior contract anniversary, the Index Change will equal the declared rate. If the index value on the current contract anniversary is less than or equal to the index value on the prior contract anniversary, the Index Change will be equal to 0.00%. The Index Change is multiplied by the option's Account Value to determine the index interest credit. The fixed declared rate shown in this hypothetical illustration is the first year rate and may be higher than the fixed declared rate that will apply in renewal years. The fixed declared rate is set in advance of each Index Crediting Period and will never be less than 1.00%.

Any Index Credits for the Barclays Trailblazer Sectors 5 Index Two Year Point-to-Point with a Spread without a Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of Barclays Trailblazer Sectors 5 Index for a 2-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Spread rate is the rate which is subtracted from any positive index percentage change prior to applying the Participation Rate. The Participation Rate and Spread rate are declared prior to each 2-year Index Crediting Period. The Index Change for this index is determined by subtracting the index value at the beginning of the 2-year Index Crediting Period from the index value at the end of the 2-year Index Crediting Period and then divide that value by the index value at the beginning of the 2-year Index Crediting Period, minus any applicable Spread rate, multiplied by the Participation Rate. The current Participation Rate is 285.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 100.00% for this option. The Spread rate for any 2-year Index Crediting Period will never be more than 5.00% for this option. If the index percentage change is zero or negative, no Index Interest is added. It is important to note that when the declared Participation Rate is greater than 100% and the Index Change percentage at the end of the Index Crediting Period is zero or negative, no index interest credits will be applied to the Account Value. Please see the Statement of Understanding for a detailed explanation. If the index percentage change is positive, this percentage is multiplied by the options' Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero. Volatility control seeks to provide smoother returns and mitigate sharp market fluctuations. While this type of strategy can lessen the impact of market downturns, it can also lessen the impact of market upturns, potentially limiting upside potential.

Any Index Credits for the BlackRock Market Advantage Index™ 1-YR Annual Point-to-Point With Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the BlackRock Market Advantage Index™ for a 1-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Index Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 160.00% for this option. The Participation Rate will never be less than 30.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation Rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.



Product: **Accelerator Plus 14**  
Prepared For: **New Client**  
Initial Premium: **\$100,000 Qualified**  
State of Issue: **MD**  
Assumed Issue Date: **September 22, 2023**  
Issue Age: **60**

Any Index Credits for the GS Global Factor Index 2-Year Pt-to-Pt Spread and Par Without Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the GS Global Factor Index for a 2-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 310.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 100.00% for this option. The Spread for any 2-year Index Crediting Period will never be greater than 4.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the CIBC Balanced Asset 10™ Index 2-YR Point-to-Point With Spread and Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 10™ Index for a 2-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 235.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 45.00% for this option. The Spread for any 2-year Index Crediting Period will never be greater than 10.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the BlackRock Market Advantage Index™ 2-YR Point-to-Point With Spread and Participation option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the BlackRock Market Advantage Index™ for a 2-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 225.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 100.00% for this option. The Spread for any 2-year Index Crediting Period will never be greater than 3.50% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the CIBC Balanced Asset 5™ Index 1-YR Point-to-Point with Participation with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 5™ Index for a 1-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Index Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 290.00% for this option. The Participation Rate will never be less than 100.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation Rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Account Value at the beginning of an Index Crediting Period. The Index Credits pursuant to this option will never be less than zero.



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Initial Premium:	<b>\$100,000 Qualified</b>
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Issue Age:	<b>60</b>

Any Index Credits for the CIBC Balanced Asset 5™ Index 2-YR Point-to-Point with Participation with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 5™ Index for a 2-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 380.00% for this option. The Participation Rate will never be less than 100.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation Rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Account Value at the beginning of an Index Crediting Period. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the CIBC Balanced Asset 10™ Index 2-YR Point-to-Point with Spread and Participation with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the CIBC Balanced Asset 10™ Index for a 2-year Index Crediting Period. The Spread and Participation Rate limit how much of any increase will be used to calculate any Index Credits. The Spread and Participation Rate are declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period. We then subtract the Spread from the positive index percentage change and the result is multiplied by the Participation Rate. The current Participation Rate is 275.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 75.00% for this option. The Spread for any 2-year Index Crediting Period will never be greater than 10.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change reduced by the Spread is positive, this Spread reduced percentage is multiplied by the option's Account Value to determine the Index Credits. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the S&P 500® Index One Year Annual Point-to-Point with Participation Rate with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the S&P 500® Index for a 1-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the index value at the beginning of the 1-year Index Crediting Period from the index value at the end of the 1-year Index Crediting Period and then divide that value by the index value at the beginning of the 1-year Index Crediting Period, multiplied by the Participation Rate. The current Participation Rate is 50.00% for this option. The Participation Rate will never be less than 10.00% for this option. If the index percentage change is zero or negative, no index interest is added. It is important to note that when the declared Participation Rate is greater than 100% and the Index Change percentage at the end of the Index Crediting Period is zero or negative, no index interest credits will be applied to the Account Value. Please see the Statement of Understanding for a detailed explanation. If the index percentage change is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Account Value at the beginning of an Index Crediting Period. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the S&P 500® Index One Year Monthly Point-to-Point with a Cap with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the monthly beginning and ending values of the S&P 500® Index during a 1-year Index Crediting Period. We add together 12 months of capped monthly index percentage changes, that result is multiplied by the applicable Participation Rate. The Participation Rate and monthly Cap rate are declared prior to each 1-year Index Crediting Period. The monthly index percentage change equals the index value of the current monthly anniversary divided by the index value on the prior monthly anniversary; minus one. A positive monthly index percentage change will be limited to a monthly Cap rate. A negative monthly index percentage change will not be subject to any floor. The monthly Cap rate for this option will never be less than 1.00%. The current Participation Rate is 100.00% for this option. The Participation Rate for any 1-year Index Crediting Period will never be less than 100.00% for this option. If the sum of the 12 monthly capped percentage changes is zero or negative, no Index Credits will be added. If the sum of the 12 monthly capped percentage changes is positive, this sum is then multiplied by the Participation Rate, then this result will be multiplied by the option's Account Value to determine the amount of index interest credited. Under this index option, a 1.25% annual charge is



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Issue Age:	<b>60</b>

applied to and subtracted from the crediting option's Vested Account Value at the beginning of an Index Crediting Period. Index Credits will never be less than zero.

Any Index Credits for the S&P 500® Index One Year Annual Point-to-Point with a Cap with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the S&P 500® Index for a 1-year Index Crediting Period. The Participation Rate and Cap rate limit how much of any increase will be used to calculate any Index Credits. The Participation Rate and Cap rate are declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the index value at the beginning of the 1-year Index Crediting Period from the index value at the end of the 1-year Index Crediting Period and then divide that value by the index value at the beginning of the 1-year Index Crediting Period, multiplied by the Participation Rate, and then the result is subject to the applicable Cap rate. The current Participation Rate is 100.00% for this option. The Participation Rate will never be less than 100.00% for this option. The Cap rate will never be less than 1.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change limited by the annual Cap is positive, this capped percentage is multiplied by the option's Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Vested Account Value at the beginning of an Index Crediting Period. The Index Credits pursuant to this option will never be less than zero.

Any Index Credits for the S&P 500® Index One Year Fixed Declared Rate on Gain with a 1.25% Charge option are calculated and credited only at each contract anniversary. If the index value on the current contract anniversary is higher than the index value on the prior contract anniversary, the Index Change will equal the declared rate. If the index value on the current contract anniversary is less than or equal to the index value on the prior contract anniversary, the Index Change will be equal to 0.00%. The Index Change is multiplied by the option's Account Value to determine the index interest credit. The fixed declared rate shown in this hypothetical illustration is the first year rate and may be higher than the fixed declared rate that will apply in renewal years. The fixed declared rate is set in advance of each Index Crediting Period and will never be less than 1.00%. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Vested Account Value at the beginning of an Index Crediting Period.

Any Index Credits for the GS Global Factor Index 1-Year Pt-to-Pt Par With Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the GS Global Factor Index for a 1-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 1-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 1-year Index Crediting Period from the Index Value at the end of the 1-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 1-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 275.00% for this option. The Participation Rate will never be less than 100.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation Rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Account Value at the beginning of an Index Crediting Period. The Index Credits pursuant to this option will never be less than zero.



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Any Index Credits for the Barclays Trailblazer Sectors 5 Index Two Year Point-to-Point with a Spread with a 1.25% Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of Barclays Trailblazer Sectors 5 Index for a 2-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Spread rate is the rate which is subtracted from any positive index percentage change prior to applying the Participation Rate. The Participation Rate and Spread rate are declared prior to each 2-year Index Crediting Period. The Index Change for this index is determined by subtracting the index value at the beginning of the 2-year Index Crediting Period from the index value at the end of the 2-year Index Crediting Period and then divide that value by the index value at the beginning of the 2-year Index Crediting Period, minus any applicable Spread rate, multiplied by the Participation Rate. The current Participation Rate is 330.00% for this option. The Participation Rate for any 2-year Index Crediting Period will never be less than 100.00% for this option. The Spread rate for any 2-year Index Crediting Period will never be more than 5.00% for this option. If the index percentage change is zero or negative, no Index Interest is added. It is important to note that when the declared Participation Rate is greater than 100% and the Index Change percentage at the end of the Index Crediting Period is zero or negative, no index interest credits will be applied to the Account Value. Please see the Statement of Understanding for a detailed explanation. If the index percentage change is positive, this percentage is multiplied by the options' Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Vested Account Value at the beginning of an Index Crediting Period. Index Credits will never be less than zero. Volatility control seeks to provide smoother returns and mitigate sharp market fluctuations. While this type of strategy can lessen the impact of market downturns, it can also lessen the impact of market upturns, potentially limiting upside potential.

Any Index Credits for the GS Global Factor Index 2-Year Pt-to-Pt Par With Charge option are calculated and credited only on an Index Crediting date by using a formula that takes into account the beginning and ending values of the GS Global Factor Index for a 2-year Index Crediting Period. The Participation Rate limits how much of any increase will be used to calculate any Index Credits. The Participation Rate is declared prior to each 2-year Index Crediting Period. We determine the index percentage change by subtracting the Index Value at the beginning of the 2-year Index Crediting Period from the Index Value at the end of the 2-year Index Crediting Period and then divide that value by the Index Value at the beginning of the 2-year Index Crediting Period and then multiplied by the Participation Rate. The current Participation Rate is 355.00% for this option. The Participation Rate will never be less than 100.00% for this option. If the index percentage change is zero or negative, no index interest is added. If the index percentage change multiplied by the Participation Rate is positive, this percentage is multiplied by the option's Account Value to determine the Index Credits. Under this index option, a 1.25% annual charge is applied to and subtracted from the crediting option's Account Value at the beginning of an Index Crediting Period. The Index Credits pursuant to this option will never be less than zero.



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**Cap**

The Cap rate limits how much of any increase will be used to calculate Index Credits.

**Participation Rate**

The Participation Rate limits how much of any increase will be used to calculate Index Credits.

**Spread**

The Spread rate is the rate which is subtracted from any positive index percentage change prior to applying the Participation Rate and Cap rate.

**Index Crediting Period**

The Index Crediting Period is the period over which the Index Credit is calculated.

**Fixed Interest Option**

The Fixed Interest Option is an interest crediting option with a 1-year initial interest rate guarantee. The initial effective annual interest rate for the Fixed Interest Option is 1.50%. This is guaranteed for 1 year from the date of issue. Thereafter, the effective annual interest rate will not be changed more than once every 12 months and may be higher or lower than the initial rate but will never be less than the guaranteed minimum effective annual interest rate of 1.00%. Interest credits are credited daily.

**Free Withdrawal**

After the first Contract Year, up to 10% of your Account Value as of the contract anniversary on the first day of that Contract Year is available without a Surrender Charge and Market Value Adjustment.

**Withdrawal Period**

The period during any Contract Year in which Guaranteed Withdrawal Payments are taken.

**Excess Withdrawal**

During the Withdrawal Period, an Excess Withdrawal is any amount withdrawn over the Guaranteed Withdrawal Payment. Excess Withdrawals will decrease the Income Base.

**Premium Bonus and Vesting Schedule**

Accelerator Plus 14 has a Vesting Premium Bonus feature. The Premium Bonus is 10.00% of all Premium received in the first Contract Year. The Premium Bonus is credited on the date Premium is received and vests over time. The Premium Bonus is eligible to earn interest based on the interest crediting options selected. The Vesting Schedule is the number of Contract Years over which the Premium Bonus and any interest thereon vests. Once any portion of the Premium Bonus and any interest thereon vests, it becomes part of the Account Value available for surrender or withdrawal. Any unvested Premium Bonus and any interest thereon are not available for surrender or withdrawal and are not part of the Surrender Value. Bonus annuities may include higher Surrender Charges, longer surrender periods, lower Caps, higher Spreads or other restrictions that are not included in similar annuities that don't offer a bonus. The Vesting Schedule is as follows:

End of Contract Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Vesting %	7%	14%	21%	29%	36%	43%	50%	57%	64%	71%	79%	86%	93%	100%



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**Surrender Charge**

This is the cost you incur if the contract is surrendered or if any amount withdrawn exceeds the Free Withdrawal amount during the period the Surrender Charge is in effect. The Surrender Charge on these amounts is applied at the time the surrender or withdrawal is made. Any amount withdrawn above the Free Withdrawal amount will be multiplied by the applicable surrender percentages listed below to determine the actual Surrender Charge.

Contract Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+
Surrender Charge %	14.75%	13.75%	12.75%	11.75%	10.75%	10.00%	9.00%	8.00%	7.00%	6.00%	5.00%	4.00%	3.00%	2.00%	0.00%

**Withdrawal Options**

If you need to access your Account Value prior to electing an Annuity Option or beginning Guaranteed Withdrawal Payments, Accelerator Plus 14 does allow you to take up to four unscheduled withdrawals each Contract Year or to schedule regular withdrawals as frequently as monthly. Unless waived by one of the circumstances listed below, all other withdrawals that exceed the annual 10% Free Withdrawal amount will be subject to Surrender Charges and applicable Market Value Adjustment.

Subject to additional limitations, Surrender Charges could be waived under the following circumstances, depending on the state where your contract is issued:

1. Home Health Care Rider - If the annuitant requires Home Health Care Services by a licensed Home Health Care provider as a result of being impaired in performing two out of six activities of daily living as outlined in your contract for at least 60 days, and such care begins at least one year after the contract's effective date of issue.
2. Terminal Illness Benefit Rider - If a licensed physician certifies that you have been diagnosed with an illness or physical condition that causes your life expectancy to be 12 months or less. The diagnosis must be at least one year after the contract's issue date.
3. Nursing Home Rider - If you are confined to a licensed nursing home for at least 60 consecutive days, and your confinement begins at least one year after the contract's date of issue.

**Enhanced Guaranteed Minimum Withdrawal Benefit Rider (EGMWB)**

The EGMWB Rider provides you with the ability to receive Guaranteed Withdrawal Payments for your life. In the case of joint annuitants who are legal spouses, the guaranteed income will extend through the lifetime of the surviving spouse. The charge for this rider is 1.15% of the Income Base. The charge is deducted from your contract's Account Value annually. The EGMWB Rider consists of two periods, the Accumulation Period and the Withdrawal Period.

The Accumulation Period is the period of time prior to the first Guaranteed Withdrawal Payment. The Accumulation Period begins on the contract's issue date and ends the date the Guaranteed Withdrawal Payments commence. If during the Accumulation Period, your Vested Account Value is depleted to zero due to a withdrawal, the contract will terminate.

The Withdrawal Period can start once the contract has been in force for at least one year and the youngest annuitant has reached age 50. The amount of the Guaranteed Withdrawal Payment is determined at the start of the Withdrawal Period. During the Withdrawal Period, you will receive a guaranteed income stream unless an Excess Withdrawal is taken. If during the Withdrawal Period an Excess Withdrawal reduces your Vested Account Value to zero, the contract will terminate.



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### Step-up

Step-up occurs when the Income Base is increased to the greater of the Account Value and the Guaranteed Withdrawal Performance Value. The Step-up is automatic and is available on the day the Withdrawal Period begins and on each contract anniversary during the Withdrawal Period.

At Step-up, the Guaranteed Withdrawal Payment or Enhanced Guaranteed Withdrawal Payment is recalculated using the stepped-up Income Base and multiplying it by the Guaranteed Withdrawal Percentages. At the time of the step-up, the Guaranteed Withdrawal Percentages will be based on the annuitant's age at the time of the Step-up.

### Roll up

The rate at which the Income Base grows is referred to as the Roll up rate. The initial Roll up rate is 5.00%.

### Performance Factor

The Performance Factor is equal to 5%.

### Maturity Date

The date you will receive the entire value of your contract in the form of annuity payments. There are a number of payout options (see Annuity Options) from which to select. Regardless of the payout option selected, once the amount of the payments is determined, your payments can never be changed. You should review the available payout options with your tax advisor to select the most appropriate one based on your financial situation.

### Annuity Options

You must begin receiving annuity payments on the Maturity Date. The Maturity Date is fixed at contract issue and is no later than the contract anniversary following the oldest annuitant's 100th birthday. The following seven Annuity Options are available:

1. Income for a Fixed Period
2. Life Income with a Guaranteed Period
3. Life Income
4. Joint and Contingent Life Income
5. Joint and Survivor Income with Guaranteed Period
6. Joint and Survivor Life Income
7. Life Income with Lump Sum Refund at Death

At annuitant's Age 100, the guaranteed annual annuity payment under the Life Income option would be \$44,698.97. The guaranteed annual annuity rate per \$1,000 for this option at annuitant's Age 100 is \$281.61. Actual annuity payments will vary depending on the contract Surrender Value, Age of the annuitant(s) on the date you exercise the Annuity Option, the Annuity Option selected, and the payment frequency.



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### Effect on Taxes

This annuity is generally tax-deferred, which means you don't pay taxes on the gain until the money is paid to you. When you take payouts or make a withdrawal, you pay ordinary income taxes on the taxable portion of your withdrawal. Withdrawals are treated as coming from gains first and then as a return of your Premium. Payments under an annuity payment option are treated as coming partially from gains and partially as return of Premium. You may pay a federal income tax penalty on the taxable portion of your withdrawal if you withdraw funds before Age 59 ½. If your state imposes a Premium tax, it may be deducted from the money you receive. Please consult your tax advisor regarding your unique situation.

If you have a qualified contract, such as an IRA, the illustration may reflect Required Minimum Distributions (RMDs). Such distributions generally must commence in the year following the year in which you turn age 73. The calculation for any RMD amount indicated on this hypothetical illustration is based on the previous year's ending Accumulated Value and does not take into consideration the value of benefits provided by any additional riders. Therefore, keep in mind that the RMD amount shown is a projected amount that could be higher or lower. If the actual RMD amount that you must withdraw is higher than the amount illustrated, the remaining Accumulated Value and Death Benefit amounts will be correspondingly lower.

### Barclays Trailblazer Sectors 5 Index

Barclays Bank PLC and its affiliates ("Barclays") is not the issuer or producer of Fixed Indexed Annuities and Barclays has no responsibilities, obligations or duties to contract owners of Fixed Indexed Annuities. The Index is a trademark owned by Barclays Bank PLC and licensed for use by Fidelity & Guaranty Life® Insurance Company as the Issuer of Fixed Indexed Annuities. Barclays only relationship with the Issuer in respect of Index is the licensing of the Index, which is determined, composed and calculated by Barclays without regard to the Issuer of the Fixed Indexed Annuities or the owners of the Fixed Indexed Annuities. Additionally, Fidelity & Guaranty Life® Insurance Company as Issuer of Fixed Indexed Annuities may for itself execute transaction(s) with Barclays in or relating to the Index in connection with Fixed Indexed Annuities. Contract owners acquire Fixed Indexed Annuities from Fidelity & Guaranty Life® Insurance Company and contract owners neither acquire any interest in Index nor enter into any relationship of any kind whatsoever with Barclays upon making an investment in Fixed Indexed Annuities. The Fixed Indexed Annuities are not sponsored, endorsed, sold or promoted by Barclays. Barclays does not make any representation or warranty, express or implied regarding the advisability of investing in the Fixed Indexed Annuities or the advisability of investing in securities generally or the ability of the Index to track corresponding or relative market performance. Barclays has not passed on the legality or suitability of the Fixed Indexed Annuities with respect to any person or entity. Barclays is not responsible for and has not participated in the determination of the timing of, prices at, or quantities of the Fixed Indexed Annuities to be issued. Barclays has no obligation to take the needs of the Issuer or the owners of the Fixed Indexed Annuities or any other third party into consideration in determining, composing or calculating the Index. Barclays has no obligation or liability in connection with administration, marketing or trading of the Fixed Indexed Annuities.

The licensing agreement between Fidelity & Guaranty Life® Insurance Company and Barclays is solely for the benefit of Fidelity & Guaranty Life® Insurance Company and Barclays and not for the benefit of the owners of the Fixed Indexed Annuities, contract owners or other third parties.

Barclays shall have no liability to the issuer, contract owners or to other third parties for the quality, accuracy and/or completeness of the index or any data included therein or for interruptions in the delivery of the index. Barclays makes no warranty, express or implied, as to results to be obtained by the issuer, the contract owners or any other person or entity from the use of the index or any data included therein. Barclays makes no express or implied warranties, and hereby expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to the index or any data included therein. Barclays reserves the right to change the methods of calculation or publication, or to cease the calculation or publication of the index, and Barclays shall not be liable for any miscalculation of or any incorrect, delayed or interrupted publication with respect to any of the index. Barclays shall not be liable for any damages, including, without limitation, any special, indirect or consequential damages, or any lost profits and even if advised of the possibility of such, resulting from the use of the index or any data included therein or with respect to the fixed indexed annuities.



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Issue Age:	<b>60</b>

### GS Global Factor Index

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Product:	<b>Accelerator Plus 14</b>
Prepared For:	<b>New Client</b>
Initial Premium:	<b>\$100,000 Qualified</b>
State of Issue:	<b>MD</b>
Assumed Issue Date:	<b>September 22, 2023</b>
Issue Age:	<b>60</b>

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 Assumed Issue Date: **September 22, 2023**  
 Issue Age: **60**

### Required Minimum Distribution

Contract Year	Age (Current Year)	RMD Factor	Guaranteed				Current			
			Account Value Prior Year *	Annual RMD Amount	Annual Withdrawals	Annual Remaining RMD	Account Value Prior Year *	Annual RMD Amount	Annual Withdrawals	Annual Remaining RMD
14	74	26.50	82,294	3,105	0	3,105	846,575	31,946	0	31,946
15	75	25.50	80,421	3,154	0	3,154	836,998	32,823	0	32,823
16	76	24.60	77,566	3,153	0	3,153	817,108	33,216	0	33,216
17	77	23.70	75,693	3,194	0	3,194	807,712	34,081	0	34,081
18	78	22.90	72,897	3,183	0	3,183	919,252	40,142	0	40,142
19	79	22.00	71,024	3,228	0	3,228	908,680	41,304	0	41,304
20	80	21.10	68,286	3,236	0	3,236	1,704,642	80,789	0	80,789
21	81	20.20	66,413	3,288	0	3,288	1,685,039	83,418	0	83,418
22	82	19.40	63,733	3,285	0	3,285	1,644,840	84,786	0	84,786
23	83	18.50	61,860	3,344	0	3,344	1,625,924	87,888	0	87,888
24	84	17.70	59,237	3,347	0	3,347	3,358,595	189,751	0	189,751
25	85	16.80	57,363	3,414	0	3,414	3,319,971	197,617	0	197,617
26	86	16.00	54,796	3,425	0	3,425	3,240,769	202,548	0	202,548
27	87	15.20	52,923	3,482	0	3,482	3,203,500	210,757	0	210,757
28	88	14.40	50,412	3,501	0	3,501	3,645,883	253,186	0	253,186
29	89	13.70	48,539	3,543	0	3,543	3,603,955	263,062	0	263,062
30	90	12.90	46,082	3,572	0	3,572	6,760,854	524,097	0	524,097
31	91	12.20	44,209	3,624	0	3,624	6,683,104	547,795	0	547,795
32	92	11.50	41,806	3,635	0	3,635	6,523,670	567,276	0	567,276
33	93	10.80	39,933	3,698	0	3,698	6,448,648	597,097	0	597,097
34	94	10.10	37,584	3,721	0	3,721	13,320,666	1,318,878	0	1,318,878
35	95	9.50	35,711	3,759	0	3,759	13,167,478	1,386,050	0	1,386,050
36	96	8.90	33,415	3,754	0	3,754	12,853,352	1,444,197	0	1,444,197
37	97	8.40	31,542	3,755	0	3,755	12,705,538	1,512,564	0	1,512,564
38	98	7.80	29,298	3,756	0	3,756	14,460,093	1,853,858	0	1,853,858
39	99	7.30	27,424	3,757	0	3,757	14,293,802	1,958,055	0	1,958,055
40	100	6.80	25,232	3,711	0	3,711	26,814,512	3,943,311	0	3,943,311

\*Account value based on 12/31 Account Value of prior year



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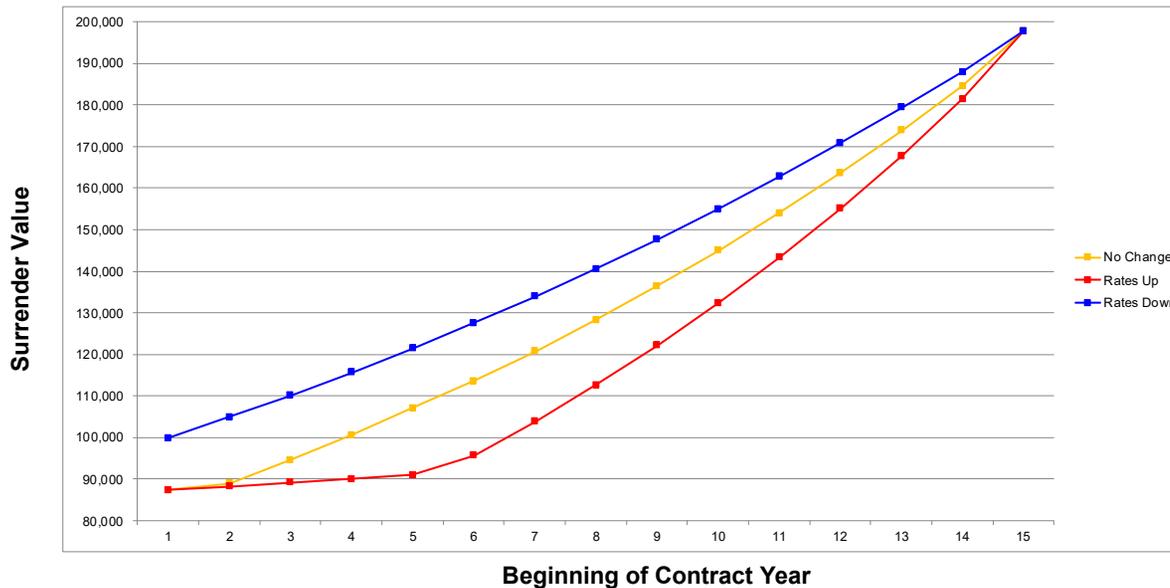
## What is a Market Value Adjustment?

A Market Value Adjustment (MVA) is part of your annuity contract and affects the contract's Surrender Value. Typically, if you surrender your contract or take a withdrawal and interest rates have risen since you purchased your annuity contract, your Surrender Value will decrease. Conversely, if you surrender your contract or take a withdrawal and interest rates have declined since you purchased your annuity contract, your Surrender Value will increase.

The information provided below is designed to help you understand how a change in the interest rate environment could impact the level of an MVA and thus the Surrender Value of your annuity contract. An MVA may be positive or negative and is applied whenever a Surrender Charge is applied to your contract. The graph below shows Surrender Values for a sample Premium of \$100,000 and a hypothetical credited rate of 5.00% for an annuity contract with a 14-year Surrender Charge schedule. It is for demonstration purposes only and is not intended to reflect actual future performance for any given annuity contract.

The rate is based on the Bloomberg Barclays US Aggregate Index Yield to Worst. The MVA is contractually limited such that the Surrender Value of your contract will not be less than the minimum required by law nor greater than the Account Value.

### Market Value Adjustment Impact for Three Scenarios



**Blue Line:** Reflects an immediate decline in rates of 2.00%. Rates remain at the lower level for the full Surrender Charge period of 14 years.

**Orange Line:** Reflects no change in rates. Rates remain constant for the full Surrender Charge period of 14 years.

**Red Line:** Reflects an immediate increase in rates of 2.00%. Rates remain at the higher level for the full Surrender Charge period of 14 years.

Please review the full Annuity Illustration for additional information and the guaranteed values. Hypothetical values throughout this illustration are based on assumptions which are not guaranteed, may change and may not be in effect when you purchase your contract. Actual results will likely be different than those illustrated.



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## Signature Statement

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\_\_\_\_\_  
Signature of applicant or owner

\_\_\_\_\_  
Date

I CERTIFY THAT THIS HYPOTHETICAL ILLUSTRATION HAS BEEN PRESENTED TO THE APPLICANT AND A COPY HAS BEEN PROVIDED. I HAVE EXPLAINED THAT ANY NON-GUARANTEED ELEMENTS ILLUSTRATED ARE SUBJECT TO CHANGE. I HAVE NOT MADE ANY REPRESENTATIONS OR PROMISES ABOUT FUTURE INDEX VALUES, INDEX CHANGES, OR INDEX CREDITS TO BE EXPECTED UNDER THIS CONTRACT. I HAVE MADE NO STATEMENTS THAT ARE INCONSISTENT WITH THIS HYPOTHETICAL ILLUSTRATION.

\_\_\_\_\_  
Signature of insurer's authorized agent

\_\_\_\_\_  
Date



**ASIC**  
Australian Securities &  
Investments Commission

# Disclosure: Why it shouldn't be the default

A joint report from  
the **Australian Securities and  
Investments Commission (ASIC)**  
and the **Dutch Authority for the  
Financial Markets (AFM)**



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## Disclaimer

This report does not constitute legal advice. We encourage you to seek your own professional advice to find out how the applicable laws apply to you, as it is your responsibility to determine your obligations.

Examples in this report are purely for illustration; they are not exhaustive and are not intended to impose or imply particular rules or requirements.

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## What we mean by 'disclosure'

Disclosure is information the law mandates must be provided to consumers by firms.

Disclosure presents material information about the characteristics, fees and/or risks of financial products and services. Financial firms can provide disclosure in hard-copy document form or electronically (e.g. emails or on websites).

Some examples of disclosure documents are:

- › detailed disclosure documents (e.g. prospectuses and Product Disclosure Statements)
- › summary tools (e.g. Australian key facts sheets and dashboards, and Dutch financial information leaflets and Key Information Documents)
- › warnings.

Firms may be required to provide the information to prospective customers at or close to the time of sale, as well as throughout the lifecycle of the product.

In this report disclosure does **not** include:

- › contractual information
- › other information conveyed by firms to consumers outside their mandatory disclosure obligations (for example, through advertising).

# Executive summary

Financial services disclosure has traditionally been assumed to inform us (as consumers), help us make 'good' financial decisions, and drive competition.

This report focuses on the real-world context in which disclosure operates. It shows that, and explains why, disclosure and warnings can be less effective than expected, or even ineffective, in influencing consumer behaviour. In some instances it shows that disclosure and warnings can backfire, contributing to consumer harm.

The report is a joint publication by the Australian Securities and Investments Commission (ASIC) and the Dutch Authority for Financial Markets (AFM). Both of these regulators have, over a number of years, identified limitations to disclosure in their respective retail financial services markets.<sup>1</sup> Although the Australian and the Dutch financial markets and regulatory regimes differ, there is also much common ground.

As regulators, ASIC and the AFM agree that while disclosure is necessary, it alone is often not sufficient to drive good consumer outcomes.<sup>2</sup> Disclosure can and does contribute to better financial markets. For example, when media, competitors and intermediaries use it to gauge and thus enhance competition. Regulators can use it to contribute to market transparency, integrity and efficiency. And consumers can use disclosure as post-purchase reference documents in the event of disputes. However, we cannot assume that disclosure alone, including warnings, will be effective in protecting consumers, enabling good decision making and driving competition from the demand side.

Moreover, when disclosure is used to address problems it is ill-suited to solve, it can place an unrealistic and onerous burden on consumers – for example, expecting them to overcome complexity and sophisticated sales strategies.

ASIC and the AFM take the publication of this report as an opportunity to contribute to 'frontier' public policy discussions, by raising for consideration the need to rethink:

- › the role of disclosure as the default option relied on to protect consumers
- › assumptions about competitive market forces and what role disclosure actually plays in shaping 'effective' demand-side pressure

---

<sup>1</sup> ASIC, [Financial System Inquiry interim report: Submission by ASIC](#) (PDF 961 KB), August 2014, pp. 15–17; ASIC, [Financial System Inquiry: Submission by ASIC](#) (PDF 2 MB), April 2014, pp. 12, 80–81; ASIC, [Submissions of the Australian Securities and Investments Commission – Round 6: Insurance](#) (PDF 247 KB), Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, October 2018; P Kell, then ASIC Deputy Chairman, [ASIC and behavioural economics: Regulating for real people](#), speech, Queensland University Behavioural Economics Group symposium, 18 October 2016; AFM, [Caution! Borrowing money costs money: A study of the effectiveness of a warning in credit advertisements](#) (PDF 1 MB), report, December 2016; AFM, [A closer look at consumer borrowing: An analysis of decision-making behaviour and potential interventions in the consumer credit market](#) (PDF 428 KB), report, May 2019; WB Hoekstra, Minister of Finance, ['Uitkomsten onderzoek consumentiekredietmarkt'](#) ('Results of consumer credit market research', Dutch only), letter to parliament, September 2018.

<sup>2</sup> A Fletcher, ['The role of demand-side remedies in driving effective competition'](#), *Which?*, 7 November 2016, pp. 36–39; G North, ['Efficiency, fairness & irrationality: Incompatible or complementary?'](#), *Banking & Finance Law Review*, vol. 24(2), February 2009, pp. 333–334.

- › the appropriate balance between consumers and industry for effecting good consumer outcomes, and avoiding poor ones.

Real-world testing and monitoring is needed to assess the effectiveness of required information and disclosure in achieving good outcomes for consumers.

## Case studies in disclosure limitations

The report explores the limits of disclosure, using case studies from ASIC, the AFM and other relevant sources as evidence. These case studies are drawn from the full range of financial products and services in different financial markets, and include all forms of disclosure.

As the case studies are specific to products and contexts, the findings from each are not generalisable. However, together they show how overloaded the expectations on disclosure and consumers can be; and why firms providing mandatory information does not necessarily result in 'informed consumers' and often does not correlate with good consumer outcomes. Disclosure is necessary, but not sufficient.

Why? Because:

### Disclosure does not solve the complexity in financial services markets

Disclosure cannot solve complexity that is inherent in products and processes. Simplifying disclosure, for example, does not reduce the underlying complexity in financial products and services. Nor does it ease the contextual and emotional dimensions of financial decision making, both at the point of purchase and over time.

### Disclosure must compete for consumer attention

We are constantly saturated with competing attempts to capture our attention and influence our decisions. Many firms have the commercial opportunity and means to effectively attract, distract and influence us; but regulators, and the disclosures they mandate, generally do not. Firms can also work around or undermine disclosure requirements that, once set, are generally slow to change.

### One size does not fit all – the effects of disclosure are different from person to person and situation to situation

Like other forms of regulation, mandated disclosure requirements are often 'one size fits all' interventions – yet people and contexts differ and shift. It is hard to predict the individual and context-specific differences in how we will behave, make decisions, and engage with and process information.

### In the real world, disclosure can backfire in unexpected ways

At worst, disclosure creates unintended detrimental outcomes for some consumers – in effect contributing to consumer harm (e.g. by increasing rather than decreasing trust in conflicted advisers, and decreasing rather than increasing credit card repayments). Ongoing monitoring of disclosure is needed because of these unexpected effects.

Finally, we also issue:

#### A warning about warnings

There is emerging evidence from financial services regulators about the limitations of the effectiveness of warnings that firms have to display about the risks and features of certain products and services. There is, for instance, some evidence of the effectiveness of warnings on our understanding of the risks associated with products, and in encouraging us to avoid unsuitable or harmful products.

Warnings are not a cure-all for problems in financial services markets. Further research to evaluate their effectiveness is warranted.



**Disclosure does  
not solve  
the complexity  
in financial  
services markets**

# Disclosure does not solve the complexity in financial services markets

Disclosure cannot solve complexity that is inherent in products and processes. Simplifying disclosure, for example, does not reduce the underlying complexity in financial products and services. Nor does it ease the contextual and emotional dimensions of financial decision making, both at the point of purchase and over time.

## ‘People aren’t dumb, the world is hard’

One of the key assumptions on which disclosure has traditionally been premised is the idea that if information asymmetries are corrected, we will make optimal choices. However, this assumption disregards how difficult it can be to choose the best option (if, in fact, it is possible at all), given the computational complexities involved.<sup>3</sup> As the Nobel laureate Richard Thaler says, ‘People aren’t dumb, the world is hard’.<sup>4</sup>

For instance, behavioural economist Pete Lunn and colleagues investigated consumer decision making about complex products. Their research indicates that once we have to take into account more than two or three different factors, our ability to identify good and bad deals becomes strikingly inaccurate.<sup>5</sup> This research also found that although people with high levels of numeracy and education performed slightly better than those without, the improvement was small. Everybody tested struggled to differentiate good from bad deals when they had to take into consideration more than two or three product attributes.

Applying this insight to financial services suggests that few (if any) financial products and services are *not* ‘complex’. For instance, a savings account has several features to trade off: free withdrawal or not, compound interest (interest-on-interest) or not, and (in the EU context) which deposit guarantee scheme is applicable.<sup>6</sup> Ubiquitous products, such as credit cards and insurance products, also have multiple complex features: see Figure 1. While disclosure about complex products is still necessary, it alone is not sufficient to resolve complexity, nor to drive good consumer outcomes.

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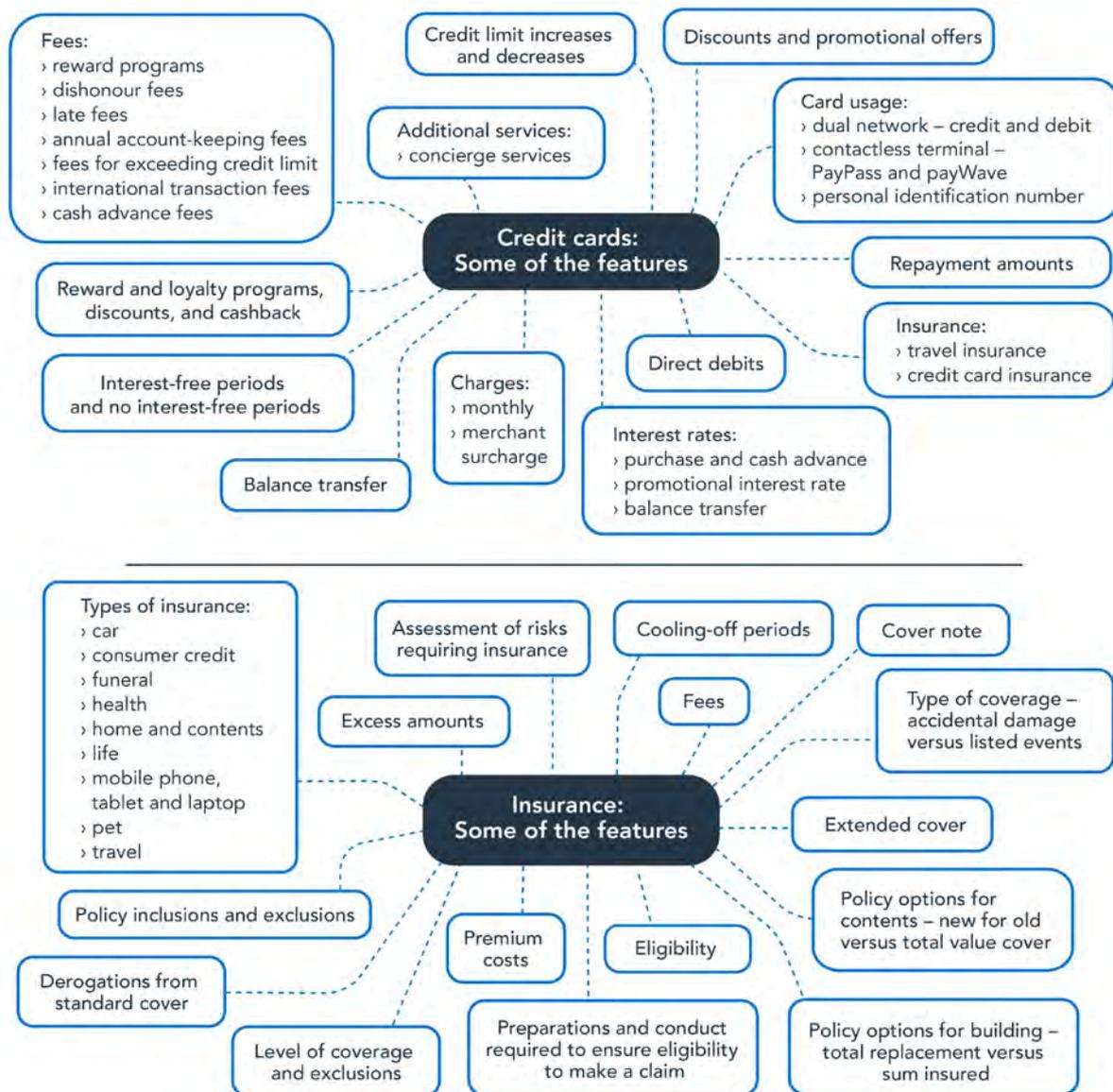
<sup>3</sup> P Bossaerts P & C Murawski, ‘Computational complexity and human decision-making’, *Trends in Cognitive Sciences*, vol. 21(12), December 2017, pp. 917–929.

<sup>4</sup> SJ Dubner, ‘[People aren’t dumb. The world is hard \(Episode 340\)](#)’, *Freakonomics*, podcast, 11 July 2018.

<sup>5</sup> P Lunn, M Bohacek, J Somerville, AN Choisdealbha & F McGowan, [PRICE Lab: An investigation of consumers’ capabilities with complex products](#), report, Economic & Social Research Institute, May 2016.

<sup>6</sup> Some saving accounts offered in the Netherlands actually fall under the deposit guarantee scheme of another European country – for example, the deposits at the Landesbanki (Icesave) bank, which failed in 2008, were guaranteed by the Icelandic deposit guarantee scheme.

Figure 1: Complexity of ubiquitous financial services and products – Credit cards and insurance



**Note:** See Table 3 for the information shown in this figure (accessible version).

Further complicating our decision-making task is the choice we face between multiple options. In selecting a financial product, not only must we trade off the features within the product, we are also expected to compare and trade off those features across multiple types of products.

ASIC research into consumer decisions to purchase home insurance found that many consumers focused on price to the exclusion of other features. These price-motivated consumers chose the known over the unknown. They knew that a premium reduction was achievable; they did not know that choosing a policy based on a policy feature might be useful or even necessary to them in the future. In effect, this focus on price may have led consumers to take a short cut when choosing between complex products, discouraging them from discovering that the policies were not in fact comparable.<sup>7</sup>

## Financial decisions are complex

Decisions about financial products and services are particularly complex because they:

- › are often made **infrequently**, providing few opportunities for feedback and learning
- › may have an **emotional dimension** – for example, when the impact they have on our lives and wellbeing is very large
- › are **intangible**, with no physical cues by which quality can be judged
- › may require **trade-offs over time** – for example, between present and future benefits, where the future benefits or harms may be only realisable long after we have made the decision to purchase
- › may involve **uncertainty** – for example, about unknowable future states of the world and our own difficult-to-predict future behaviour, on which the features and prices of many financial products are contingent
- › often involve **risk** – for example:
  - insurance products protect against risk
  - investment products require balancing the chance of positive returns against the risk of loss
  - credit products involve risk of over indebtedness and/or interest rate increases.

Unsurprisingly, most of us judge risk intuitively and inaccurately. We have difficulty understanding probabilistic processes, and either overestimate or underestimate. Moreover, these (mis)judgments are made by both the general public and experts alike – particularly when experts rely on their intuition, rather than available data.<sup>8</sup>

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<sup>7</sup> ASIC, [Report 416](#) *Insuring your home: Consumers' experience buying home insurance* (REP 416), October 2014.

<sup>8</sup> P Slovic, '[Perception of risk](#)', *Science*, vol. 236(4799), April 1987, pp. 280–285, p. 281.

### Case study: Inaccurate perceptions of risk in stock markets and initial coin offerings (ICOs)

NL

AFM research found that both investors and non-investors overestimated loss probabilities in the stock market.<sup>9</sup> This overestimation was stronger for non-investors, and it was particularly strong for longer investment periods.

The AFM also found that people who invested in ICOs underestimated the chances that they would lose money in their investment. The risk perception of ICO investors appears to be lower than justified. Three quarters of the ICO investors estimated that the probability of loss of their investment was less than 50%, whereas available data indicate that nearly half of the offerings in 2017 failed within the year.<sup>10</sup>

### Case study: Onerous requirements to accurately assess risk in insurance

AUS

In ASIC's experience, disclosure has proved particularly ineffective in enhancing consumer understanding of the level of risk involved in a product or service. For instance, in the context of insurance, research indicates that to accurately assess risks individuals must hold in their short-term memory:

- › recollection of several previous insurable events
- › an imagined situation involving their own home for all such events
- › some kind of causal reasoning in which the consumer would judge, for example, that if the river flooded their house, it would be inundated to a certain level.<sup>11</sup>

More generally, we do not interact with disclosure in isolation, nor do we make decisions about or between specific financial products or services in isolation. Context matters. In the real world, we are routinely required to make multiple decisions on a broad range of day-to-day and major life issues, in an environment (over)crowded with information and choices. As Nobel laureate Daniel Kahneman has identified, nobody has the time or the resources to fully analyse all of the available information and fully maximise their utility with every choice.<sup>12</sup>

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<sup>9</sup> S Zeisberger, C Borsboom, D-J Janssen, M Strucks, M & W Zijlstra, [Investor risk perception in the Netherlands](#) (PDF 807.3 KB), research paper, AFM, 2018.

<sup>10</sup> AFM, [Investing in cryptos in the Netherlands: Market survey under Dutch consumers](#) (PDF 371.98 KB), June 2018; K Sedgwick, ['Crowdfunding: 46% of last year's ICOs have failed already'](#), *Bitcoin.com*, 23 February 2018.

<sup>11</sup> [REP 416](#), p. 15.

<sup>12</sup> D Kahneman, [Why we contradict ourselves and confound each other](#), interview transcript, October 2017.

## Some firms make their products and processes strategically complex, confusing consumers

Some firms can compound and further take advantage of this already highly complicated environment by making products and processes strategically complex (e.g. bundled products and pricing, confusing and opaque 'discounts', unclear fee descriptors).<sup>13</sup>

Credit cards, for instance, are inherently complex products because they are at least three products in one – a non-cash payment facility, a credit facility and a means of withdrawing cash. Firms often add to this complexity by bundling and marketing credit cards with other financial products (such as insurance) and loyalty points, making it more difficult for us to separate the price and value of each feature – particularly as some of the costs and benefits are immediate and others are realised in the future: see Figure 1.

Firms can also make processes strategically 'sludgy' by including excessive, unnecessary frictions that make it difficult for us to do what we want.<sup>14</sup> For example, firms can make products easy to get into, but hard to get out of.

Strategies such as these can confuse us and/or take advantage of our confusion, and defeat our attempts to engage with or understand even simplified disclosure. The more products and processes are made complex, the harder they are to explain and understand.

Firms can also make the content and delivery of disclosure itself strategically complex. For example, by making the disclosure hard to find or hard to understand, or providing it when it is unlikely we will be able to factor the disclosed information into our future decisions and outcomes.

### Case study: Consumer credit insurance – Devil in the detail

AUS

Consumer credit insurance (CCI) is sold with home loans, personal loans and credit cards. It provides cover for consumers if they can't meet their minimum loan repayments because they become unemployed, sick or are injured, or to pay the outstanding loan balance if they die.

In Australia, 'sludge' is a feature in the design of CCI, as well as in sales and claims handling processes. This sludge can exacerbate the problems created by unfair sales practices and further reduce the ability of disclosure to drive good consumer outcomes.

#### Bundled products

In Australia the CCI sold with credit cards is particularly poor value in part, because of the **strategic and confusing complexity built into the products** – for example, they contain bundled cover for temporary disability, permanent disability, terminal illness, death, and involuntary unemployment.

<sup>13</sup> O Bar-Gill, *Seduction by contract: Law, economics, and psychology in consumer markets*, Oxford University Press, Oxford, 2012, pp. 18–20; X Gabaix & D Laibson, '[Shrouded attributes, consumer myopia, and information suppression in competitive markets](#)' (PDF 147 KB), *The Quarterly Journal of Economics*, vol. 121(2), 2006, pp. 505–540.

<sup>14</sup> CR Sunstein, '[Sludge audits](#)', Harvard Public Law Working Paper No. 19-21, April 2019.

Yet, despite disclosure, many consumers who have CCI have only a shallow knowledge of the policy, and others are not even aware they have it.

ASIC research conducted in 2013<sup>15</sup> found that most consumers interviewed described the decision to purchase as **easy and quick**. Some consumers were led to believe it was mandatory, and others recalled that it was provided to them automatically on what they described as an 'opt-out' basis.

### **Strategically complex and unfair sales tactics**

Some consumers felt that the sales process worked against them being able to attempt to understand the policy features, with sales staff giving mixed messages and rushing decisions. Some consumers had no recollection of receiving any information, and others recalled not having time to read information, or only being given policy documents after they had purchased the policy.

More recently, ASIC has identified continued use of **strategically complex and unfair sales tactics**.<sup>16</sup> For instance, tactics used by telemarketers include:

- › suggesting that consumers buy CCI and cancel it during the cooling-off period if they continued to see no value in it;
- › failing to inform consumers about exclusions (which would make some consumers ineligible)
- › using ambiguous language to obtain consent so that some consumers did not realise they were agreeing to buy CCI
- › pressuring consumers and persisting with sales calls even when consumers stated they did not want or need CCI
- › overcoming consumers' reasonable objections using practiced techniques that played to consumers' concerns.

### **High friction claims handling processes**

ASIC's 2013 research found that some consumers who lodged claims, found the **process unexpectedly burdensome**, with onerous obligations to provide documentation and evidence. Generally, the consumers who were required to supply most information had suffered the most serious problems and were unlikely to ever return to work.

## **Simplifying disclosure does not solve complexity**

Simplifying disclosure does not 'solve' complexity because, as Professors Omri Ben-Shahar and Carl E Schneider assert, the complex is not simple and cannot easily be made so.<sup>17</sup> They argue that much of the complexity in disclosure arises because so much affects a

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<sup>15</sup> ASIC, [Report 361](#) *Consumer credit insurance: Consumers' claims experience* (REP 361), July 2013.

<sup>16</sup> ASIC, [Report 622](#) *Consumer credit insurance: Poor value products and harmful sales practices* (REP 622), July 2019.

<sup>17</sup> O Ben-Shahar & CE Schneider, '[More than you wanted to know: The failure of mandated disclosure](#)' (PDF 504 KB), *University of Pennsylvania Law Review*, vol. 159, 2011, pp 647- 749.

'well-considered' choice. The more factors that are eliminated (in the interests of simplification) the greater the risk that something that may improve a decision has been omitted. The fewer factors that are eliminated, the more we must struggle to understand, remember and take into account.

Moreover, 'simplification' often amounts to simplification of language, rather than concepts and issues. Even if simple words could efficiently describe concepts and issues, most of us lack the specialist experience and skills necessary to process and evaluate the information. Finally, it is clearly not feasible for disclosure to solve the many complex emotional and contextual dimensions of financial decisions (e.g. our mindset and circumstances at the time of the decision(s), or the inherently emotional nature of some decisions).

The following two case studies demonstrate the limited impact of both simplified and detailed disclosure on consumer choices about complex products. In both cases, participants in laboratory experiments were asked to pick the best available option, based solely on the information provided to them. The results showed that many participants were not able to select the best option, even in these idealised 'quiet' circumstances – isolated from the busy context of the real world, including the many distractions, demands and influences that affect our decisions and behaviour.

#### Case study: Limited impact of summary and detailed home insurance disclosure documents

AUS

The effectiveness of different disclosure in helping consumers make 'optimal' purchasing choices about home insurance was tested in an experiment conducted by Monash University.<sup>18</sup> The experiment was conducted in a computer laboratory and the only information participants could base their decision on was a detailed Product Disclosure Statement (PDS) and/or a two-page key facts sheet.

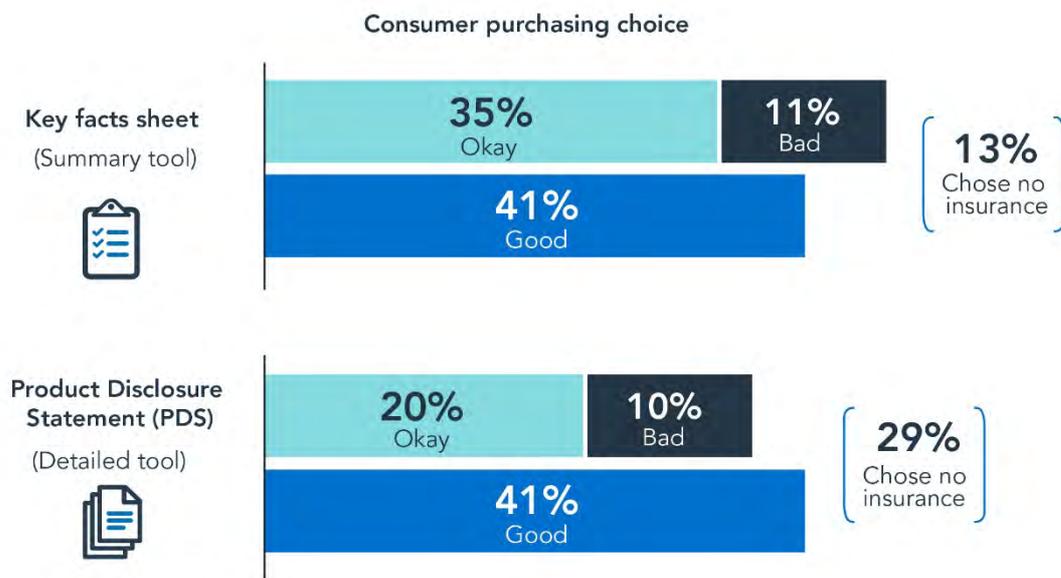
Key findings from a number of different experimental groups showed that:

- › only two fifths (41%) of participants provided with the 'simple' key facts sheet selected the objectively best insurance product. They did no better than those provided with the longer PDS: see Figure 2.
- › almost three fifths (59%) of participants provided with either the 'simple' key facts sheet or longer PDS made suboptimal choices
- › within some experimental groups, up to 42% of participants chose the worst product on offer.

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<sup>18</sup> J Malbon & H Oppewal, [\(In\)effective disclosure: An experimental study of consumers purchasing home contents insurance](#), research report of a study commissioned by the Financial Rights Legal Centre, Monash University: Australian Centre for Financial Studies, 2018.

Figure 2: Insurance purchase choices using key facts sheets and PDSs



**Note:** Online quantitative experiment with a sample size of 406 Australians aged 18 years and over, nationally distributed sample. Research conducted 2018. See Table 4 for the data shown in this figure (accessible version).

**Case study: Limited impact of summary investment bond disclosure documents** NL

Similar research was conducted by the AFM.<sup>19</sup> Consumers were asked to decide which bond to invest their money in, based solely on one of two shorter documents (a four-page summary prospectus or a three-page Key Information Document (KID)), or a combination of both documents. It was possible to objectively assess the best choice bond, because in the controlled setting there was one offering that dominated the other two bonds; costs and risks were lower or equal, and yields were equal or higher.

Key findings included that those participants who were given the KID made better investment decisions overall – over one-third (34%) of participants correctly invested everything in the dominating bond (for the summary prospectus this was 24%, and for the combined disclosure this was 31%). However, 66% of participants who were given the KID still invested some or all of their available assets in suboptimal options. So some forms of disclosure performed significantly better than other forms of disclosure. But no one type of disclosure helped all consumers.

For a summary of the results, see Figure 3.

<sup>19</sup> AFM, [A randomized controlled trial on the effectiveness of mandatory investment information](#), article, 2019.

Figure 3: Investment decisions of consumers using a summary prospectus, KID and a combination of both



**Note:** Online quantitative experiment with a sample size of 384 Dutch retail investors. Research conducted in 2016. See Table 5 for the data shown in this figure (accessible version).

## Reliance on expert advisers

One option open to consumers seeking to navigate the complexity in financial services markets is to seek expert advice. However, it can be difficult for consumers to know who to trust to give such advice and disclosure cannot solve this dilemma for consumers.

### Case study: Difficulties in judging quality of advice

AUS

In Australia, financial product advisers must provide consumers with a Statement of Advice (SOA) that sets out the basis for advice, details about the providing entity, and any payments or benefits the adviser will receive. However, this information cannot provide consumers with the specialist skills, knowledge and experience required to accurately judge the quality of the advice provided.

Shadow shopping research ASIC conducted with real consumers who sought retirement advice identified a large gap between the technical quality of the advice (as assessed by ASIC) and the consumers' own assessment of that advice. While 86% of consumers considered the advice they received to be good, ASIC assessors rated only 3% of the advice reviewed as good, with the remainder rated as adequate, or poor: see Figure 4.<sup>20</sup>

<sup>20</sup> ASIC, [Report 279](#) Shadow shopping study of retirement advice (REP 279), March 2012.

The research also identified a disconnect between the trust or level of comfort consumers felt with their advisers and the quality of advice received: 81% of consumers said that they trusted the advice they received from their adviser 'a lot', although 39% of the advice examples reviewed by ASIC staff were actually poor, and 58% were only adequate.<sup>21</sup>

Figure 4: Consumer versus ASIC staff rating of advice received



**Sample:** Qualitative shadow shop research with a sample of 64 Australian adults aged 50–69 years. Each advice example was reviewed by at least two ASIC analysts. A 12-person expert reference group – composed of industry representatives, a representative of the Financial Ombudsman Service and a representative of ASIC’s Consumer Advisory Panel – provided guidance and oversight of the advice assessment process. Research conducted in 2011.

**Case study: Consumers rated the ‘worst’ mortgage advisers highly**

NL

Similar Dutch research found that some of the advice provided by mortgage advisers that consumers considered to be high quality was ranked among the worst by a bank, and vice versa. There was no relation between consumers’ online ratings of mortgage advisers and the ratings given by a bank that worked with the advisers.<sup>22</sup>

As with the underlying financial decision, judging advice quality involves unreasonable computational complexity and requires expertise and pre-existing knowledge. The absence of these can lead us to substitute other attributes – such as social affinity (grounded in shared religion, language or culture), strong social rapport and/or a trusted brand – to help us assess quality.<sup>23</sup>

<sup>21</sup> REP 279, paragraphs 18 and 22.

<sup>22</sup> M Mons & C Baelemans, [Value chain excellence in retail](#) (Dutch only), presentation slides, IG&H Consulting, July 2011.

<sup>23</sup> See, for example, ASIC, [Report 15](#) *Hook, line and sinker: Who takes the bait in cold calling scams?* (REP 15), June 2002; ASIC, [Report 126](#) *Understanding investors in the unlisted unrated debenture (UUD) market* (REP 126), April 2008; ASIC, [Report 470](#) *Buying add-on insurance in car yards: Why it can be hard to say no* (REP 470), February 2016.

For instance, one investor involved in ASIC research based her decision to invest in an unlisted, unrated debenture on the trust she had in the salesperson, which was in turn grounded in the language and cultural background she shared with the salesperson.

“And of course we had a good hard yak in Polish, because I love the Polish language ... and I felt that [this sales person] was very, very honest.”<sup>24</sup>

In practice, trust in advisers may be misplaced, particularly where advisers have misaligned incentives – for example, due to a remuneration scheme that creates perverse incentives. Disclosure has often been relied on to help consumers navigate the complexities associated with conflicts of interest. However, this disclosure-based approach can backfire, increasing consumers’ trust in advisers and giving advisers ‘moral license’ (i.e. when people allow themselves to do something bad (e.g. immoral) after doing something good (e.g. moral))<sup>25</sup> to recommend biased choices to their customers.

The onus is on consumers to navigate this complex environment, in circumstances in which information alone is insufficient to correct the imbalance in experience, knowledge and power.

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<sup>24</sup> [REP 126](#), p. 22.

<sup>25</sup> On moral license, see A Merritt, D A Effron, & B Monin, ‘Moral self-licensing: When being good frees us to be bad’, *Social and Personality Psychology Compass*, vol. 4/5, 344–357, May 2010. On trust, see D de Meza, B Irlenbusch & D Reyniers, [Disclosure, trust and persuasion in insurance markets](#) (PDF 425 KB), IZA Discussion Paper No. 5060, July 2010.



**Disclosure must  
compete for  
consumer  
attention**

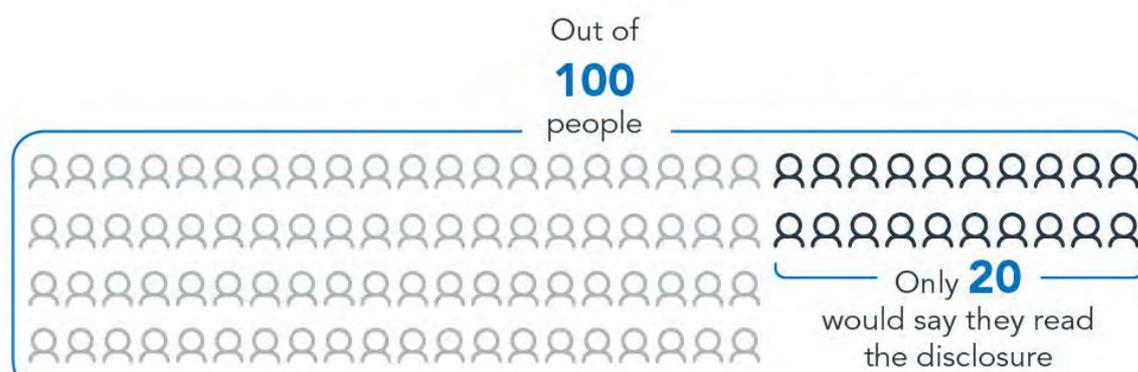
# Disclosure must compete for consumer attention

We are constantly saturated with competing attempts to capture our attention and influence our decisions. Many firms have the commercial opportunity and means to effectively attract, distract and influence us; but regulators, and the disclosures they mandate, generally do not. Firms can also work around or undermine disclosure requirements that, once set, are generally slow to change.

## Few consumers pay attention to disclosure

A consistent finding in Australian research about consumer engagement with long disclosure documents about financial products – for example, investment,<sup>26</sup> insurance,<sup>27</sup> and superannuation products<sup>28</sup> – is that many of us do not access the documents at all, and those of us who do skip large parts: see Figure 5.

Figure 5: Proportion of consumers who read the disclosure



**Note:** The diagram is based on six separate quantitative research studies of consumers who read or used mandated disclosure and/or information. Research findings included products and services across channels and sectors (e.g. financial services and online privacy). See 'Notes for Figure 5' for details on data and methodology.

Similarly, in the Netherlands, nearly half of consumers interviewed in one study reported not reading their service agreement documents ('dienstverleningsdocument') or its precursor.

<sup>26</sup> ASIC, [Report 540](#) *Investors in initial public offering* (REP 540), August 2017; WhereTo Research, *Factors that influence retail investors in IPOs* (Attachment to [REP 540](#)), August 2017, p. 6; ASIC, [Report 341](#) *Retail investor research into structured capital protected and capital guaranteed investments* (REP 341), May 2013; ASIC, [Report 588](#) *Consumers' experiences with the sale of direct life insurance* (REP 588), August 2018.

<sup>27</sup> [REP 416](#); Effective Disclosure Taskforce, [Too long; didn't read – Enhancing general insurance disclosure](#) (*Too long; didn't read*), report, Insurance Council of Australia (ICA), October 2015; ASIC, [Report 292](#) *Paying for funerals: How consumers decide to meet the costs* (REP 292), July 2012; [REP 588](#).

<sup>28</sup> ASIC, [Report 576](#) *Member experiences with self-managed superannuation funds* (REP 576), June 2018.

Only about 1 in 10 consumers thoroughly read these documents,<sup>29</sup> and a minority of consumers use them to compare financial advisers.<sup>30</sup>

Two common barriers that we self-identify in explaining the limited attention paid to disclosure are that the documents are impenetrable and not relevant: see Table 1.

Table 1: Common barriers self-identified by consumers

Barrier	Examples
<b>Disclosure was impenetrable</b>	Consumers found that the disclosure was too long, was too complex, and/or used difficult and technical language and concepts. <sup>31</sup>
<b>Disclosure was not relevant</b>	Consumers found that the disclosure lacked 'candid information' and/or did not provide information that was actionable in light of the consumers' personal circumstances and context. <sup>32</sup> Consumers who skipped large parts of the disclosure documents reported that they focused on the sections they considered to be important. <sup>33</sup>

However, these reasons do not provide a complete explanation of the limited attention we pay to disclosure. They must be considered in conjunction with other limitations of disclosure, such as those discussed in this report, and the broader context within which we make decisions.

In particular, disclosure is often provided at a time and in a manner that renders it unlikely to influence us. For example, it may be provided:

- › after we have already committed to the purchase<sup>34</sup>
- › when there is insufficient time for us to read and consider the document,<sup>35</sup> or
- › as one of multiple documents provided at the confirmation or appointment of a financial adviser.<sup>36</sup>

Those of us who do access disclosure documents often remain confused and/or fail to act on them as intended by policy makers. This is true for both detailed disclosure documents and shorter, simplified summary tools. For instance, in the Netherlands, there is high name recognition of shorter financial information leaflets ('Financiële bijsluiter') – that is, people know it exists, so they could access this summary document. But only two in five people actually used it in their decision to purchase a complex financial product, such as a mortgage or life insurance.<sup>37</sup>

<sup>29</sup> P Risseeuw, M Kerste, B Baarsma, & R Dosker, [Evaluatie provisieregels complexe producten](#) ('Evaluation of provisions for complex products', Dutch only), report no. 2010-44, SEO Economisch Onderzoek, September 2010.

<sup>30</sup> M Elsen, R van Giesen, M Elshout, & J Leenheer, [Consumenten en financieel advise. Consumentenonderzoek in het kader van de evaluatie van het provisieverbod](#) ('Consumers and financial advice. Consumer research for the evaluation of the ban on commissions', Dutch only), CentER Data, November 2017.

<sup>31</sup> See, for example, [REP 341](#); [REP 416](#); [REP 540](#); [REP 576](#); [Too long: didn't read](#).

<sup>32</sup> See, for example, [REP 540](#); [REP 576](#).

<sup>33</sup> See, for example, [Too long: didn't read](#); [REP 416](#); [REP 576](#); [REP 540](#).

<sup>34</sup> See, for example, [REP 416](#) and [REP 470](#).

<sup>35</sup> See, for example, [REP 416](#) and [REP 470](#).

<sup>36</sup> R van Steen, J Visser & A Eecen, [De effectiviteit van de Financiële Bijsluiter: resultaten van onderzoek onder consumenten](#) (PDF 382 KB) ('The effectiveness of the Financial Leaflet: results of consumer research', Dutch only), report, TNS Nipo, 13 March 2009.

<sup>37</sup> R van Steen, J Visser & A Eecen, [De effectiviteit van de Financiële Bijsluiter: resultaten van onderzoek onder consumenten](#) (PDF 382 KB) ('The effectiveness of the Financial Leaflet: results of consumer research', Dutch only), report, TNS Nipo, 13 March 2009.

## Firms' influence on consumers is timely and compelling

Firms frequently try to capture our attention and influence our behaviour. Regulators seeking to influence us rely chiefly on disclosure. Firms, on the other hand, can directly influence us through a broad range of increasingly sophisticated marketing and sales techniques.

For some firms, these 'pathways' of influence are designed with the benefit of deep expertise, extensive resources and, increasingly, access to and use of personal consumer data. Many firms are adept at using behavioural approaches to encourage specific behaviours.

As the following case studies demonstrate, it is difficult, and often impossible, for disclosure to compete with and disrupt the myriad ways in which firms can capture our attention, strategically distract us and otherwise nudge our decisions. Firms can for instance:

- › employ advertising and marketing
- › develop sales pitches
- › shape the choice architecture and context to their benefit.

### Advertising and marketing

Firms may advertise or market a brand or product, and thereby influence our preferences and behaviour in ways we are often unaware of. They can use a broad range of sophisticated strategies to make their product offerings appear attractive and socially desirable.

These strategies extend beyond traditional written and broadcast advertising, and include social media and face-to-face marketing that leverage social rapport. The potential of marketing to influence us is ever increasing, as more firms use available data to profile consumers, micro-target communications and behaviourally target specific consumers in particular contexts at particular times.<sup>38</sup> Digitalisation makes collecting this data, often through online channels, easier and cheaper.

Relying on disclosure obligations that are generalised and static to keep pace with these evolving marketing techniques, is likely to become increasingly impracticable.<sup>39</sup>

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<sup>38</sup> M Kaptein, *Persuasion profiling: How the internet knows what makes you tick*, English edn, Business Contact Publishers, Amsterdam/Antwerp, May 2015.

<sup>39</sup> LE Willis, M Hastak & J King, 'Customer confusion audits: Lessons from the use of consumer confusion audits in the United States', research report for ASIC (publication forthcoming).

### Case study: Frequency and placement of advertisements for unlisted, unrated debentures a proxy for quality and safety

AUS

Unlisted, unrated debentures can be high-risk products, in which companies borrow money from investors with a promise to repay with interest at a future fixed date. They are not listed on a secondary market, and so can be difficult to on-sell. They also do not have a credit rating.

ASIC research found that some investors in unlisted, unrated debentures were attracted to them by advertising or marketing and used the frequency and placement of advertisements as a proxy for quality. Some investors also specifically noted that they were influenced by spokespeople:

“I thought, there was some famous guy who was coming on the ad, I can’t remember who it was ... [I thought] if this company [is] not a good company then this man wouldn’t be putting his name to it and standing there, and speaking for the company.”<sup>40</sup>

The research also found that investors’ understanding that they were investing in unlisted, unrated debentures was very low.

### Case study: Financial funeral products advertising creates a new social ‘norm’

AUS

ASIC research into how people pay for funeral insurance found that many people who acquired the product had been exposed multiple times to funeral insurance advertising on television. All these people shared the idea that people not only can, but should formally prepare for the cost of their own funeral, suggesting the advertising had created a new ‘social norm’ around prepaying for funerals that did not exist previously in the community.<sup>41</sup> In Australia, the advertising created an ‘invented need’ for many consumers in a market where alternative options may be more fit for purpose.

## Sales pitches

Firms can also draw on their expertise in the art of the sales pitch to influence us. This can include:

- › the full range of tactics, from persuasive to pressure sales
- › leveraging social factors, such as likeability, trust and reciprocity<sup>42</sup>
- › harnessing known biases to bring their preferred messages front of mind for consumers.

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<sup>40</sup> [REP 126](#).

<sup>41</sup> [REP 292](#).

<sup>42</sup> See, for example, RB Cialdini, *Influence: The psychology of persuasion, Revised edition*, Collins Business, New York, 2007.

For example, using statements such as ‘while supplies last’ and ‘act quickly’ can create an artificial scarcity and steer consumers and investors to act or invest quickly, motivated by a fear of missing out.<sup>43</sup>

A consistent theme from ASIC’s consumer research is that many consumers pay more attention to, and are more influenced by, what they are told by sales staff than disclosure documents.<sup>44</sup>

### Case study: Car yard sales strategies makes it hard to say no to ‘add-on’ insurance

AUS

ASIC research about how consumers are influenced to buy low-value ‘add-on’ insurance in car yards found that persuasive and pressure sales tactics leveraged social rapport, trust and conflict avoidance.<sup>45</sup>

For example, sales staff:

- › established **trusting relationships** with customers in order to gain a competitive advantage in marketing a wide variety of products to them
- › used small expenses like coffee to lend themselves a sense of **‘likeability’**, **professionalism and quality** (psychologists argue that people are much more likely to say ‘yes’ to requests made by people they like) and create a sense of **reciprocity** (which may nudge consumers to reward a kind action with another positive action)
- › applied subtle pressure to consumers, leveraging our tendency to avoid conflict and/or the perception of being unreasonable. For example, sales staff might spend up to 40 minutes pre-filling application forms, even though they had not been asked to do so by consumers.

“They also gave me nine different options that I didn’t want ... This one seemed like if I had to take anything, this was the better option. I’ll take the gunshot to the knee, thanks.”

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<sup>43</sup> AFM, [AFM publiceert herziene beleidsregel Informatieverstrekking](#) (‘AFM publishes Revised Policy Rule on the Provision of Information’, Dutch only), media release, 31 December 2018. On artificial scarcity, see A Mathur, G Acar, M Friedman, E Lucherini, J Mayer, M Chetty & A Narayanan, [Dark patterns at scale: Findings from a crawl of 11K shopping websites](#), paper, July 2019.

<sup>44</sup> See, for example, [REP 470](#) and [REP 126](#).

<sup>45</sup> [REP 470](#).

Firms can be unbalanced in their communication with consumers, disproportionately emphasising the advantages of a product or service. For example, fixating on using credit to buy a certain product may divert attention from the financial consequences of a decision. For example, research by the UK Financial Conduct Authority (FCA) found that consumers did not typically perceive overdrafts to be loans because firms often included overdrafts within the 'funds available', positioning the debt as part of the consumer's balance.<sup>46</sup>

### Choice architecture

More generally, firms structure the choice architecture – that is, the features in an environment, noticed and unnoticed, that influence our decisions and actions. These design features are present at every stage of product design and distribution, and include how the product or service is framed, options are presented, processes are organised and products are 'sold'. Choices can never be framed completely neutrally – 'any way a choice is presented will influence how the decision-maker chooses'.<sup>47</sup>

For example, firms may:

- › **make the decision to purchase easy** by simplifying and shortening messages and processes (among other things) to minimise the cognitive load, and eliminating frictions to reduce the 'hassle factor' and facilitate acting on impulse. For example, the streamlined approval and delivery processes in payday loans make it quick and easy for us to take out these high-interest loans
- › **strategically time product offers** to either capture or distract our attention. For instance, offers made to increase credit when we are close to our limits will attract attention, while limiting the time we have to make decisions or review material will distract attention. Some firms are also adept at providing **product information just in time** to influence our decisions (e.g. texts sent to customers to influence their usage of credit cards, at the point in time the credit card is being used), or at a time when it is unlikely to attract our attention (e.g. drip pricing, where we are told an initial lower cost, and then told about additional costs after we have committed to the purchase).

<sup>46</sup> Jigsaw Research, [Consumer credit qualitative research: Credit cards and unauthorised overdrafts](#) (PDF 1.1 MB), report commissioned by the FCA (UK), April 2014; AFM, [Applying behavioural insights to promote better credit decisions: Impact of the choice architecture on decision-making](#) (PDF 368 KB), report, October 2016.

<sup>47</sup> E J Johnson, S B Shu, B G C Dellaert, C Fox, D G Goldstein, G Haubl, R P Larrick, J W Payne, E Peters, D Schkade, B Wansik & E U Weber, [Beyond nudges: Tools of choice architecture](#) (PDF 211 KB), *Marketing Letters*, vol. 23(2), May 2012.

Defaults are options that are automatically selected when someone fails to actively decide otherwise. For example:

- › ASIC identified that some Australian banks were defaulting loyal customers whose term deposits had expired into new term deposits. The 'new' term deposits had significantly lower interest rates than available alternatives – for example, at-call accounts.<sup>48</sup>
- › The AFM has identified the use of 'prefilled' amounts in credit-worthiness assessments influencing levels of reported income and expenditure. Prefilling amounts to assess credit-worthiness for phone credit led to a 20.5 percentage point increase in reported incomes within a 5% range either above or below the prefilled amount, and 15.8 percentage point increase in reported expenditure amounts close to the prefilled amount.<sup>49</sup>

Firms also influence consumer choices by how they frame the costs.<sup>50</sup> For example, by:

- › **stressing the available balance** on revolving credit facilities (rather than repayment over the long term), which can play into consumers' tendency to underestimate future consequences and overestimate short-term gains
- › **presenting cost as relatively small and ongoing**, which can lead people to underestimate the actual cost and impact of credit decisions. This can be done by highlighting ongoing costs, such as monthly instalments and/or interest, rather than total aggregate cost. For example, AFM research showed consumers preferred a shorter contract length (reducing the cost of the credit) when they were provided information about preferred duration instead of monthly instalments.

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<sup>48</sup> ASIC, [Report 185](#) *Review of term deposits* (REP 185), March 2010.

<sup>49</sup> AFM, [Prefilling income and expenditure has large and unwanted effects on telephone credit applications: a field experiment](#), news article, March 2018.

<sup>50</sup> AFM, [Applying behavioural insights to promote better credit decisions: Impact of the choice architecture on decision-making](#) (PDF 368 KB), report, October 2016.

In ASIC research about the sale of low-value add-on insurance in car yards, consumers reported finding the structure of the sales process **fatiguing, overwhelming and rushed, minimising their attention and thinking time.**<sup>51</sup>

The insurance was offered at the end of a long day, when consumers had already been required to make multiple decisions – for example, about the car they wanted to purchase, what extras to include and how to finance the purchase. Many consumers explicitly mentioned that by the time they were offered insurance, they were expecting the experience to be over and wanted to leave.

“All our time and energy went into finding the right car, we didn’t even think of insurance.”

Consumers were subject to **overwhelming demands to make multiple decisions** at or around the same time. Some consumers felt they were **rushed through decisions** on insurance, as one or a small number in a string of decisions, and were confused about what each product actually was.

“... it’s like a maze.”

## Context

The context (both physical and digital) in which firms interact with us also significantly affects how we are influenced. Each different context influences the time, attention and weight we give to the information and offers we receive – and firms can time and design their product information, offers and options accordingly.

For instance, we interpret and engage with digital information differently to how we do so with hard copy information, and we also process information differently on different digital devices. We take less time to process information on screens, and can be more likely to skim read and rush our thinking. This tendency can be even stronger with small devices, such as mobile phones – particularly when we use them while we are distracted, ‘on the go’, or in a hurry, increasing the chance that rushed or shallow thinking and visual biases will affect our decisions.<sup>52</sup>

In contrast, our engagement with hard copy information provided in face-to-face sales is influenced by other factors, including:

- › the physical environment (e.g. a closed room with a sales person present,<sup>53</sup> or our own home)

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<sup>51</sup> [REP 470](#).

<sup>52</sup> See, for example, J Dunaway, [Mobile vs. computers: Implications for news audiences and outlets](#) (PDF 352 KB), Discussion Paper #D-103, Shorenstein Center on Media, Politics and Public Policy, August 2016; and S Benartzi, *The smarter screen: Surprising ways to influence and improve online behavior*, Portfolio, New York, 2015.

<sup>53</sup> [REP 470](#).

- › social factors (e.g. we place greater trust and pay more attention to sales staff than to the disclosure documents)<sup>54</sup>
- › information being obscured by sales staff (e.g. physically covering up relevant information or distracting us with idle banter while we are trying to read).<sup>55</sup>

The net effect is that we are often nudged by firms in nuanced and context-specific ways towards decisions that may or may not be in our best interests, in ways we may or may not be aware of. Firms may, for example, intentionally, recklessly or inadvertently nudge us towards products and services that are not fit for purpose, or that prioritise commercial interests over consumer interests.

Equally, many firms have the means and resources at their disposal to improve consumer outcomes through nudging that is fair to consumers.

## Firms with misaligned incentives may have the incentive, opportunity and means to work around and undermine disclosure

Firms can also work around, undermine and outpace disclosure requirements, particularly where the incentives of firms do not align with good consumer outcomes. This key issue has been identified and explored in particular by Professor Lauren Willis,<sup>56</sup> including in work conducted with ASIC.<sup>57</sup> Regulators should also consider how firms might react when preparing regulations, including disclosure.

### Some firms can work around and undermine disclosure requirements

Some firms can work around and undermine disclosure requirements by strategically timing when the disclosure is provided (just in time to influence our preferences and decisions) and making small design adjustments (e.g. to size, order, consistency, placement and format) that significantly affect the extent to which and how we access, assess and act on the information presented.<sup>58</sup>

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<sup>54</sup> [REP 470](#).

<sup>55</sup> LE Willis, '[Performance-based remedies: Ordering firms to eradicate their own fraud](#)', *Law and Contemporary Problems*, vol. 80(3), 2017, pp. 3, 13.

<sup>56</sup> LE Willis, '[When nudges fail: Slippery defaults](#)' (PDF 656 KB), *The University of Chicago Law Review*, vol. 80, 2013, pp. 1154–1229.

<sup>57</sup> Professor Willis keynote speech at an ASIC forum, 'Regulating for results: Beyond disclosure' unpublished (2017); and LE Willis, M Hastak & J King, 'Customer confusion audits: Lessons from the use of consumer confusion audits in the United States', research report for ASIC (publication forthcoming).

<sup>58</sup> For example, LE Willis, M Hastak & J King, 'Customer confusion audits: Lessons from the use of consumer confusion audits in the United States', research report for ASIC (publication forthcoming).

### Case study: High-cost small amount loan warning work arounds

AUS

Australia's Consumer Action Law Centre<sup>59</sup> found that providers of high-cost small amount loans (commonly known as 'payday loans') were presenting compulsory warnings on their websites in ways that were likely to reduce the warnings' impact – for instance, by:

- › putting the warning at the bottom of the webpage, so the consumer would not need to scroll past it to apply for the loan
- › partially obscuring the warning with an unrelated message
- › timing the warning to pop up only after the consumer had put in their contact details (by which time they had likely made a mental commitment to the loan).

### Case study: Detrimental messaging

NL

Firms can undermine the information they are legally required to provide in disclosure documents by providing inconsistent or contrary information through other channels.

One approach taken in the Netherlands to tackle this issue is to prescribe that information provided about a financial product or service, including advertisements, not be 'detrimental' to the information to be supplied or made available under the law.

In the Revised Policy Rule on the Provision of Information, the AFM provides an example: if the (mandated) risk indicator shows that a risk associated with a product is very high, an advertisement about the same product that claims that the risk is 'relatively low' will be considered to be detrimental. The advertisement detracts from ('doet afbreuk aan') the mandated disclosure.<sup>60</sup>

### Case study: Confusing product names

AUS/NL

Products can be named in ways that result in consumer confusion. More detailed descriptions about products contained in disclosure documents have been ineffective in resolving this confusion.

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<sup>59</sup> Consumer Action Law Centre, [What warning? Observations about mandated warnings on payday lender websites](#) (PDF 1.98MB), report, August 2013. See also ASIC, [Report 426 Payday lenders and the new small amount lending provisions](#) (REP 426), March 2015.

<sup>60</sup> AFM, [AFM publiceert herziene beleidsregel Informatieverstrekking](#) ('AFM publishes Revised Policy Rule on the Provision of Information', Dutch only), media release, 31 December 2018.

For example:

- › In Australia, ASIC found that the labelling and description of some investments as being '**capital protected**' or '**capital guaranteed**' led some investors to (mis)understand that their entire capital was protected and that they would get 100% of the money they invested back when their product matured. This 'capital protection' was a key reason why investors in capital protected products chose their investments. In fact, 'protected' may really mean 'protection if certain conditions are met', and if those are not met, then the capital is at risk of loss.<sup>61</sup>
- › In the Netherlands, about three in ten consumers holding **interest-only mortgages** (known in the Netherlands as 'free of down payment mortgages'<sup>62</sup>) are not completely aware of the fact that the total amount of the debt is still due at the end.<sup>63</sup> More than half of the total Dutch mortgage debt (which is nearly €700 billion) is interest only.

### Some firms can outpace and outmanoeuvre government attempts to improve disclosure and regulate choice architecture

Governments have responded to some of the issues raised in this section of the report by attempting to make improvements to disclosure or regulating choice architecture. However, as government regulations are generally static and slow to change, it is difficult to pre-empt or respond to firm strategies to work around or undermine the new regulation's intended purposes.

#### Case study: Improved disclosure – Superannuation dashboard vulnerable to manipulation

AUS

Product dashboards for superannuation products are intended to provide a 'simple' snapshot summary of a superannuation product that appears on a fund website. Dashboards were designed to be radically shorter than PDSs, to encourage member engagement and help people compare superannuation products by providing prescribed key information about risks, returns, return targets, investment options and asset allocation.

ASIC undertook standard user testing with consumers to refine the design of the dashboards and found, among other things, that people were sensitive to small design details (e.g. size, order, consistency, placement, format and terminology). At the same time, consumer preferences for information presentation varied considerably.<sup>64</sup>

<sup>61</sup> [REP 341](#).

<sup>62</sup> 'Aflossingsvrije hypotheeken' in Dutch.

<sup>63</sup> Novio Research, [Onderzoek: Aflossingsvrije hypotheeken](#) (PDF 1 MB) ('Research: Free of down-payment mortgages', Dutch only), report commissioned by the Dutch Banking Association (Nederlandse Vereniging van Banken), November 2018.

<sup>64</sup> ASIC, [Report 378](#) *Consumer testing of the MySuper product dashboard* (REP 378), December, 2013; ASIC, [Report 455](#) *Consumer testing of the Choice product dashboard* (REP 455), December, 2015.

Professor Hazel Bateman and colleagues later tested the disclosure in a series of laboratory experiments, to try to assess actual impact on consumer choices (this work was not commissioned by ASIC). They found that:

- › the choices of more than 35% of participants were not significantly impacted by any of the prescribed information items
- › even simplified risk information was irrelevant to the decisions of approximately three quarters of participants
- › only 5% of participants used all or almost all of the prescribed information and, at times, these participants used the information in unexpected ways.

The research of Hazel Bateman and colleagues also identified that despite the intention behind the dashboard to focus consumers on matching risk-adjusted returns to their own risk profile, the most influential factor on consumer choice was the asset allocation pie chart.<sup>65</sup> Having focused on the pie chart, consumers appeared to use a relatively simple '1/n heuristic' approach to allocation (preferring to spread resources evenly across funds or categories). When applied to already highly diversified investment options, this type of diversification can result in outcomes that are not informed by appropriate risk-return trade-offs.

A key implication of this research is the ease with which consumer choice could be manipulated through the 'dashboard' form – for example, by relabelling or reweighting asset allocation information used in the pie chart.

This case study highlights a significant limit of standard user testing, even when it is conducted with real consumers from an appropriate target group. It cannot assess actual impact on consumer and firm behaviour; nor on consumer outcomes, or prevent unexplored backfires.

### Case study: Choice architecture regulation – Slippery overdraft coverage default US

In an attempt to protect consumers from high overdraft fees, US regulators introduced a no overdraft fee default, where customers had to opt in to overdraft coverage (in effect a high cost loan for fees paid when an account is in overdraft).

However, the banks were opposed to this change. As a result, banks leveraged their direct access to consumers and used a range of behavioural techniques to counter the default.

Banks **minimised transaction barriers** to almost eliminate the cost of opting in. They introduced quick 'push buttons' on automatic teller machines (ATMs), stationed bank employees at ATMs to sell opting in and assist customers to do so, and telephoned likely overdraft targets directly.

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<sup>65</sup> H Bateman, I Dobrescu, B Newell, A Ortmann & S Thorp, [As easy as pie: How retirement savers use prescribed investment disclosures](#) (PDF 1.08 MB), Research Paper 326, Quantitative Finance Research Centre, March 2013.

Banks **created conditions that triggered decision and judgement biases** that encouraged opting in (and neutralised those that would strengthen the effect of the default). Banks used:

- › messages and labels that encouraged people to preserve the overdraft status quo and positioned the default in a way that triggered loss aversion. For instance, banks called overdraft products 'account protector', 'courtesy pay' and 'bounce protection' and used messages like 'Don't lose your ATM and debit card overdraft protection'
- › multiple marketing channels to focus on the immediate benefits presented by overdraft coverage (immediate access to funds) and positioned the coverage as a free 'perk' they were offering their customers.

Banks also **acted to shape people's preferences** by relying on social norms that encouraged opting in, with messages such as 'most of our customers have taken up coverage'.<sup>66</sup>

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<sup>66</sup> LE Willis, '[When nudges fail: Slippery defaults](#)' (PDF 656 KB), *The University of Chicago Law Review*, vol. 80, 2013, pp. 1154–1229.



**One size  
disclosures  
do not fit all**

# One size does not fit all – the effects of disclosure are different from person to person and situation to situation

Like other forms of regulation, mandated disclosure requirements are often ‘one size fits all’ interventions – yet people and contexts differ and shift. It is hard to predict the individual and context-specific differences in how we will behave, make decisions, and engage with and process information.

## People differ ... so does the context

As people, we all differ both from person to person and from situation to situation in how we make financial decisions. There are multiple nuanced dimensions to these differences including:

- › different decision-making processes
- › different decision-making styles
- › people seeking out and responding to different sources for information and advice
- › different ways of engaging with information.

The following case studies illustrate each of these dimensions in the context of a number of different financial products and services.

### Decision-making processes

#### Case study: Different decision-making processes – Insurance

AUS

As an example of how decision-making processes vary between individuals, Figure 6 sets out the wide variety of approaches consumers take when seeking to purchase insurance. This data comes from research undertaken by the Insurance Council of Australia (ICA).<sup>67</sup>

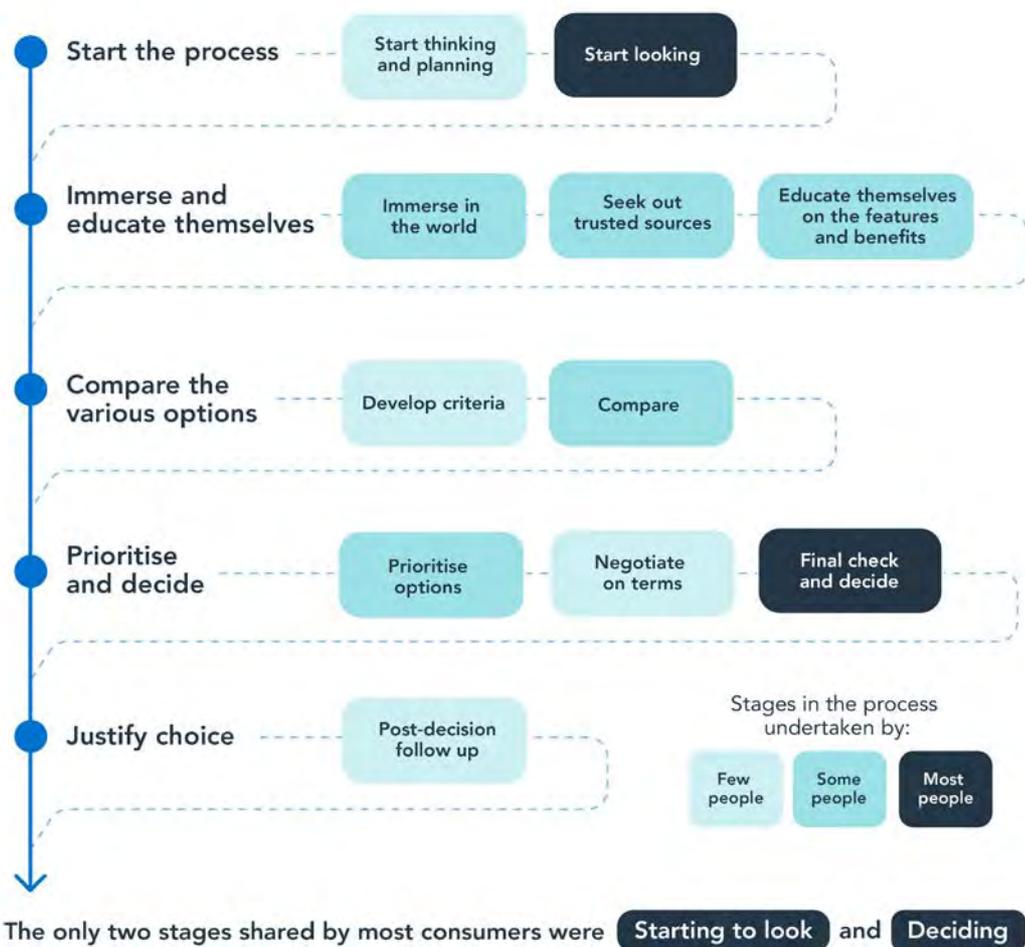
Consumers take each step to varying degrees, but the process is not always sequential. The only two stages in the processes shared by most consumers were ‘starting to look’ and ‘deciding’. All other stages were undertaken variously by only ‘some’ or ‘few’ consumers.

<sup>67</sup> ICA, [Consumer research on general insurance product disclosures](#), report, February 2017. See also [REP 416](#), p. 12, which found that some consumers making enquiries about home insurance policies spent a lot of time and effort comparing policies according to multiple criteria, while others compared only two policies, based on price only.

Another component of the ICA research found that the extent to which consumers read the detailed PDS and/or summary KFS varied significantly (where they were aware of these documents):

- › **PDS:** 16% did not read; 35% read some but not all; 47% detailed or quick read of all; 2% couldn't recall
- › **KFS:** 8% did not read; 22% read some but not all; 69% detailed or quick read of all; 1% couldn't recall.

Figure 6: Decision-making process for purchasing home insurance



**Note:** Qualitative research, including 30 face-to-face ethnographies with Australians in three capital cities and two regional centres. In addition, 120 digital longitudinal ethnographic case studies, nationally distributed sample. Research was conducted in 2016. See Table 6 for the information shown in this figure (accessible version).

### Decision-making styles

Decision-making styles are diverse and context specific. For example, we may have different feelings of confidence, be more or less self-directed, be able to search and research more or less.

While there is no perfect way to reflect this diversity, one way to examine decision processes is to identify and characterise common features or styles.

### Case study: Different decision-making styles

NL

The AFM has segmented financial consumers into four different 'financial decision types', based on extensive qualitative and quantitative research: see Table 2.<sup>68</sup>

The main point of this segmentation was not to put consumers into rigid 'boxes', but rather to illustrate that the simplistic, singular concept of 'the consumer' does not exist. Instead, deep and complex diversity exists. These segments do not neatly correlate with demographic segments (e.g. socio-economic background, age, gender, race).

Under this segmentation, consumers might be classified under different segments in different contexts, and it is also possible to shift from one segment to another over time. An individual consumer's decision-making style is not constant, and can shift from situation to situation. For example, consumers seeking to purchase a car may be 'in control' regarding the decision to purchase the car, but 'convenience-oriented' regarding subsequent decisions to purchase add-on insurance.

Table 2: AFM segmentation of financial consumers into financial decision types

Decision type	Description
<b>In control</b>	Consumers read information and want to be well informed. Statements that are especially indicative of 'in control' consumers are: <ul style="list-style-type: none"> <li>› 'I search for a lot of information.'</li> <li>› 'I take a lot of time.'</li> <li>› 'I consider many options.'</li> <li>› 'I search until I have found the best product.'</li> </ul>
<b>Ambitious</b>	Consumers are quite similar to the 'in control' group, but are much more risk seeking (or less risk averse). Statements that resonate with them are: <ul style="list-style-type: none"> <li>› 'I'm willing to run some risk.'</li> <li>› 'I like to try new products.'</li> </ul>
<b>Convenience-oriented</b>	Consumers don't want any hassle or to invest much effort themselves. They often prefer these statements: <ul style="list-style-type: none"> <li>› 'I try to limit the amount of information.'</li> <li>› 'I consider a limited amount of alternatives.'</li> <li>› 'I talk little about it with friends and family.'</li> <li>› 'I stop searching as soon as I have found a product that suits me.'</li> <li>› 'I prefer certainty.'</li> <li>› 'I prefer products that I know.'</li> </ul>

<sup>68</sup> AFM, [Rapport: Kennismaking met de financiële consument](#) ('Report: Meet the financial consumer', Dutch only), report, April 2005.

Decision type	Description
<b>Advice-oriented</b>	<p>Consumers rely heavily on others, be it professional financial advisers or friends and family. They often employ a financial adviser and have a relatively high tendency towards statements such as:</p> <ul style="list-style-type: none"> <li>› 'I let others figure out as much as possible.'</li> <li>› 'I trust advisers easily.'</li> <li>› 'I talk a lot about it with friends and family.'</li> </ul>

### Sources of information and advice

Just as decision-making processes and styles vary, so do the sources of information and advice we draw on.

#### Case study: Different information and advice gathering processes – Initial public offerings (IPOs)

AUS

ASIC research into IPO investors found that consumers used different processes to gather information and advice, depending on the specific IPO they were considering.

Most investors did not consistently use set sources of information, nor were their information-gathering processes linear (even among the most experienced in the sample). Rather, the process was more like a matrix in which various sources were used to obtain information, and the consumer pieced together a 'story' about the IPO that they considered to be sufficient to enable them to decide if they wanted to invest.<sup>69</sup>

For a representation of the different sources of information and advice IPO investors used, see Figure 7.

<sup>69</sup> WhereTo Research, *Factors that influence retail investors in IPOs* (Attachment to [REP 540](#)), August 2017.

Figure 7: Different sources of information and advice for IPO investors



**Sample:** Qualitative research with a sample of 52 Australian investors in Victoria, New South Wales, Queensland, Western Australia and South Australia. Research was conducted between December 2016 and February 2017.

### Engagement with information

Finally, there is also high variation in how we engage with information.

Case study: Differences in engagement with disclosure	AUS
<p>Relevant research findings about <b>investor and superannuation engagement with PDSs</b> include that consumers:<sup>70</sup></p> <ul style="list-style-type: none"> <li>› engage with PDSs differently, depending on their level of interest and reading style</li> <li>› varied not only in <i>how much</i> they were interested in a topic, but also in <i>what</i> they wanted to know.</li> </ul> <p>Consumers also differed in how they used PDSs:</p> <ul style="list-style-type: none"> <li>› ‘visual’ people said they thought more easily when information was presented in bar and pie charts</li> <li>› ‘numbers’ people preferred to read actual numbers in table form</li> </ul>	

<sup>70</sup> Bell, S, *The provision of consumer research regarding financial product disclosure documents*, Financial Services Working Group, ASIC (unpublished material), December 2008, pp. 16–17.

- › some people referred to the contents extensively to navigate the documents
- › some people ignored the contents and instead used elements like headings, dot points and colour cues.<sup>71</sup>

Another component of this research found that:

- › almost two thirds (64%) of research participants were not able to locate all relevant fees in the PDS for a managed investment
- › less than half (47%) of participants were able to locate all fees in the PDS for a superannuation fund.

Relevant research findings about **investor engagement with prospectuses for IPOs**<sup>72</sup> include that investors used:

- › various parts of prospectuses differently and to different extents
- › prospectuses differently from investment to investment.

This is consistent with other ASIC research that has found that consumer preferences for information presentation varies significantly – there is no single, universal approach that suits everyone.

## Context matters

The context in which we access disclosure also significantly affects how we engage with it, including:

- › the **physical environment** – for example, our engagement with a disclosure document in a quiet, undisturbed office environment, without time pressures, is likely to vary significantly from how we might engage with one on a mobile device on a busy train, or in a financial adviser’s office with time constraints and the adviser present
- › the **distribution channel** – for example, online environments can vary, and time constraints, like a digital countdown timer, can be imposed to rush our decisions
- › our **emotional mindset and physical state** – we may be more inclined to purchase or spend more on financial decisions that are inherently emotional (e.g. taking out a mortgage to purchase a home, or insurance to cover a new car). Our personal emotional mindset and physical state, as well as any competing demands on our attention, will affect how much time, attention and cognitive resources, if any, we dedicate to the disclosure, the way in which we process it and the extent, if any, to which we act on it.

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<sup>71</sup> Bell, S, The provision of consumer research regarding financial product disclosure documents, Financial Services Working Group, ASIC (unpublished material), December 2008, p. 30.

<sup>72</sup> [REP 540](#), paragraphs 137–142.

## No universal approach to disclosure can meet the needs of all

Most disclosure is generalised. It is not designed to maximise a particular consumer's understanding of the product as it applies to them individually. It also fails to account for the fact that any one piece of information is used and understood differently from person to person and situation to situation.<sup>73</sup> While some forms of disclosure are undoubtedly useful for some consumers in some contexts, no one disclosure will suit the needs of all consumers.

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<sup>73</sup> ASIC, [Submissions of the Australian Securities and Investments Commission – Round 6: Insurance](#) (PDF 247 KB), Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, October 2018, paragraph 29(a).



**Disclosure can  
backfire in  
unexpected ways**

## In the real world, disclosure can backfire in unexpected ways

At worst, disclosure creates unintended detrimental outcomes for some consumers – in effect contributing to consumer harm (e.g. by increasing rather than decreasing trust in conflicted advisers, and decreasing rather than increasing credit card repayments). Ongoing monitoring of disclosure is needed because of these unexpected effects.

Disclosure, like some other forms of regulatory intervention, can backfire. Consumer outcomes can be negatively affected by disclosure – either directly, because we react to the disclosure in unexpected ways, or indirectly, because the disclosure permits market conduct that is not in our best interests.

As the case studies below highlight, we may react to disclosures in ways that are opposite to those intended by policy makers. For example disclosure of:

- › advisers' conflicts of interest can *increase* the trust we place in them
- › credit card minimum repayment amounts can *reduce* the repayments we make.

### Case study: Conflicts of interest disclosure increase consumer trust in sales staff

US

A common public policy response to conflicts of interest is to make them transparent to consumers through disclosure, on the assumption that 'sunlight disinfects' (i.e. that making the conflict known to consumers will empower them to apply an appropriate 'discount'). However, a large body of research now indicates that disclosing conflicts of interest may in fact have unintended negative effects on both consumers and salespeople.

Some **consumers** may place an even higher degree of trust in the salesperson (as a result of the salesperson's candidness). Other consumers may interpret the disclosure as intended and distrust the advice, but still feel pressured to take the advice in order to satisfy the salesperson's interests, or out of fear of signalling their distrust to the salesperson.<sup>74</sup>

**Salespeople** may feel that, having made the appropriate disclosure, they are now morally licensed to recommend biased choices to their customers.<sup>75</sup>

<sup>74</sup> D de Meza, B Irlenbusch & D Reyniers, [Disclosure, trust and persuasion in insurance markets](#) (PDF 425 KB), IZA Discussion Paper No. 5060, July 2010.

<sup>75</sup> DM Cain, G Loewenstein & DA Moore, '[When sunlight fails to disinfect: Understanding the perverse effects of disclosing conflicts of interest](#)', *Journal of Consumer Research*, vol. 37(5), 2011, p. 836; S Sah, [Conflicts of interest and disclosure](#) (PDF 345 KB), research paper, Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, November 2018.

## Case study: Anchoring on minimum credit card repayment amounts reduces repayments

UK/US

Credit card statements must include 'minimum repayment amounts' – that is, the minimum amount consumers must pay to stay current on their accounts and avoid late fees and other penalties. There is a large body of international research that has found that the amount consumers repay can be disproportionately influenced by this minimum repayment figure (an effect known as anchoring). This results in some consumers being *more likely to make minimum repayments* or repayments close to the minimum.<sup>76</sup> Researchers at the FCA (UK) have found that removing the minimum repayment amount from manual repayment screens (which is not part of mandatory disclosure) had a large positive effect in two online hypothetical experiments, significantly increasing the value of repayments made.<sup>77</sup>

In one experiment they found that removing the minimum payment amount increased the value of repayments made by nearly 20%.

## Case study: Misunderstanding AFM approval

NL

When the AFM approves a prospectus, it checks for consistency, comprehensiveness and clarity. This process does not include judging the trustworthiness of the issuer, or whether projected yields will be realised. However, the words 'approved prospectus' have been found to lead consumers to make unanticipated assumptions about products and issuers, and the way and extent to which the AFM had vetted them:<sup>78</sup>

- › In 2012, one third of investors thought that 'approval' meant that the prospectus contained correct information, whereas in fact the AFM does not check whether the information is correct. In 2016, this misconception had increased to 43% of retail investors.
- › Both in 2012 and 2016, 15% of Dutch retail investors assumed that an approved prospectus means that the AFM has approved the investment. About 3 out of 10 investors incorrectly thought that an approved prospectus also meant that the issuer is dependable.

<sup>76</sup> N Stewart, ['The cost of anchoring on credit card minimum repayments'](#) (PDF 59 KB), *Psychological Science*, vol. 20, 2009, pp. 39–41; D Navarro-Martinez, L Salisbury, K Lemon, N Stewart, W Matthews & A Harris, ['Minimum required payment and supplemental information disclosure effects on consumer debt repayment decisions'](#) (PDF 803 KB), *Journal of Marketing Research*, vol. 48, 2011, pp. S60–S77; S Jiang & L Dunn, 'New evidence on credit card borrowing and repayment patterns', *Economic Inquiry*, Western Economic Association International, vol. 51(1), January 2013, pp. 394–407; D Bartels & A Sussman, [Anchors, target values, and credit card payments](#) (PDF 3.14MB), Fed/GFLEC Financial Literacy Seminar, University of Chicago Booth School of Business, 5 May 2016.

<sup>77</sup> P Adams, B Guttman-Kenney, L Hayes & S Hunt, [Helping credit card users repay their debt: a summary of experimental research](#) (PDF 991 KB), research note, FCA, July 2018.

<sup>78</sup> AFM, [Many misunderstandings about the meaning of prospectus approval by AFM](#), news article, 6 December 2012; AFM, *AFM consumer monitor 2016 Q1*, unpublished.



**A warning  
about warnings**

# A warning about warnings

There is emerging evidence from financial services regulators about the limitations of the effectiveness of warnings that firms have to display about the risks and features of certain products and services. There is, for instance, some evidence of the effectiveness of warnings on our understanding of the risks associated with products, and in encouraging us to avoid unsuitable or harmful products.

Warnings are not a cure-all for problems in financial services markets. Further research to evaluate their effectiveness is warranted.

## Warnings do not always work as intended

Warnings are a specific form of disclosure designed to draw attention to the particular risks or features of a financial product or service. When financial firms are required to draw attention to specific risks or features, it is expected that we will properly factor them into our decision-making process and weigh up the risks identified against our own risk profile and preferences. As researchers at the FCA (UK) have identified, warnings have become a regulatory tool of choice for policy makers because they are easy to mandate firms to provide and are assumed to be effective in informing consumers and influencing our behaviour.<sup>79</sup>

In practice, we can ignore, overlook, misunderstand or misremember warnings. They can have no impact on our behaviour, or even backfire. The FCA researchers have suggested that ‘warning fatigue’ may be a relevant factor, given our finite attention, and the over-proliferation of warnings in relation to so many of the risks we encounter in our day-to-day lives.<sup>80</sup>

Gaining an understanding of the effectiveness of this tool is particularly important when the risks or features being warned about are significant and/or when policy makers place high reliance on warnings alone to offer consumer protection.

### Case study: Credit warning has no impact on behaviour

NL

Dutch credit providers must include the warning ‘Caution! Borrowing money costs money’ in advertisements for consumer credit. The warning was intended to:

- › create awareness among consumers by pointing out the consequences of the credit
- › counter the image presented in some of the credit advertisements that borrowing for consumer purchases is perfectly normal
- › encourage consumers to carefully consider their choices.

<sup>79</sup> L Smart, ‘[Don’t look here: Do risk warnings really work?](#)’, article, *Insight: Opinion and analysis from the FCA*, 13 December 2018.

<sup>80</sup> L Smart, ‘Don’t look here: Do risk warnings really work?’, article, *Insight: Opinion and analysis from the FCA*, 13 December 2018. See also A Chesterfield & E Fradkin, [Learning from experience in financial services](#), article, *Insight: Opinion and analysis from the FCA*, 28 August 2019.

Empirical research<sup>81</sup> established that the credit warning had no short-term effects on the behaviour of consumers, or the way that they experienced the advertisements. The experiment did not show that the credit warning had any influence on the frequency with which consumers clicked on website banners, the way in which they browsed online, or the choices that they made when requesting a quote. This suggests that, at least in the short term, the warning was not influencing behaviour; however, long-term beneficial effects cannot be ruled out.

Similarly, the credit warning did not appear to affect the way in which consumers experienced advertisements and their general perception of borrowing money. In a laboratory study, there was also no effect on the steps consumers intended to take when taking out a loan. Showing a fictional advertisement that contained the existing warning, an alternative warning or no credit warning had hardly any effect on the attitudes to borrowing money.

This case also reflects important changes in emphasis by the regulator, from 2009, when the AFM declared the credit warning a success<sup>82</sup>, because within half a year more than 80% of the Dutch population could recite the warning, to 2016, when it was found to be ineffective because it did not influence actual consumer behaviour<sup>83</sup>.

### Case study: High-cost small amount loan warnings – ‘I don’t think anyone reads that’

AUS

In Australia, providers of high-cost small amount loans must provide a warning about the expense of borrowing small amounts of money, including messages about the availability of alternative sources of assistance and low/no cost sources of credit.<sup>84</sup>

Research commissioned by ASIC indicated that current warnings were unlikely to be effective in disrupting consumers’ immediate transactions.<sup>85</sup> In general, research participants who had taken out small amount loans were sceptical about the impact of the existing message and many felt that it lacked relevance to them and their current needs. Many consumers who were interviewed for the research had difficulty remembering whether they had seen the existing warning message or recalling the content.

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<sup>81</sup> AFM, [Caution! Borrowing money costs money – A study of the effectiveness of a warning in credit advertisements](#) (PDF 1 MB), report, December 2016.

<sup>82</sup> AFM, [Let op! Geld lenen kost geld is succes](#) [Translated: Watch out! Borrowing money costs money is a success], report, December 2009.

<sup>83</sup> AFM, [Let op! Geld lenen kost geld’ geen onmiddellijk effect in verkoopomgeving](#) [Translated: ‘Watch out! Borrowing money costs money’ no immediate effect in sales environment], report, December 2016.

<sup>84</sup> There is a current proposal to introduce a similar warning statement for consumer leases of household goods, to help consumers make better decisions, including by informing of the availability of alternatives. ASIC will have the power to modify the requirements for the proposed warning statement for consumer leases and the current warning statement for small amount loans.

<sup>85</sup> C Stavros, R Russell, K Westburg & M Banks, *Development of consumer advice (warning) messages for SACC and consumer lease products*, research report for ASIC (publication forthcoming). The researchers undertook in-depth interviews with 30 consumers – 20 had taken out a small amount loan, and 10 had entered into a consumer lease for household goods.

“For a lot of people ... they’ve got to get the money to pay a bill, put food on the table. School kids might need new shoes and they can’t afford them right now. These people are desperate enough to go into these loans. Messages like that are neither here nor there.”

Small amount loan customer, aged 35–49

A threshold reason why the warning was not effective was that information asymmetry is not a root cause of the problem. Consumers who participated in the research largely understood existing options and the high costs of small loans; and were aware of the potential for longer-term issues that could result from a cycle of small loans. Instead the key drivers for consumers decisions to take out small amount loans were urgent need; limited choice; and the ease and convenience.

“I’d be on the streets, homeless, if I didn’t have this option.”

Small amount loan customer, aged 35–49

### Case study: General advice warning does not help most consumers to understand the limitations of general advice AUS

In Australia, there is an important distinction between ‘personal advice’ (which triggers a number of important consumer protection obligations) and ‘general advice’ (which affords minimal consumer protection to consumers). When general advice is provided to a retail client, the financial firm must give a warning that the advice does not take into account the consumer’s personal circumstances and, therefore, that the consumer should consider whether the advice is appropriate for them before acting on it.

ASIC research<sup>86</sup> has found that:

- › most consumers do not understand the limitations of general advice despite the general advice warning. Less than half (41%) of research participants understood the limitations and most did not indicate that they would take steps to check whether the advice was appropriate for them.
- › more than one third (38%) of participants incorrectly thought that the adviser had a responsibility to consider the consumers’ financial circumstances
- › more than one third (38%) thought that the adviser was acting in the consumers’ best interest and 26% thought they were prioritising the consumers’ interests
- › almost one third (31%) of participants incorrectly thought that the adviser had a responsibility to consider the consumer’s financial goals.

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<sup>86</sup> ASIC, [Report 614](#) *Financial advice: Mind the gap* (REP 614), March 2019.

Some of the reasons suggested for why the warning was not effective include:

- › viewing the warning simply as a means for advisers and companies to ‘cover themselves’
- › assuming that the adviser would flag any issues that need to be considered
- › trusting the adviser not to recommend something that would make them worse off

“I’d kind of just gloss over it ... I just know that disclaimers are thrown everywhere on everything ...”

### Case study: ‘Strong’ mutual fund warning had no impact on ‘high knowledge’ investors

US

Research conducted in the United States tested the impact of the inclusion of a ‘past performance’ warning in mutual fund advertisements.<sup>87</sup> The experiment assessed the impact of the warning on research participants’ expectations of returns and attitudes towards the relevant mutual fund.

Among other things, the warning stated that ‘mutual funds with a strong past performance revert to the market and underperform their peers’ and warned investors not to ‘project past performance in the future’.

Within each experimental group, participants were variously shown a typical mutual fund advertisement with no disclaimer (the control group); the current Securities and Exchange Commission (SEC) disclaimer which funds have to display; or the stronger ‘past performance’ warning drafted by the researchers.

The research found that the strongly worded warning did effectively impact investors assessed by the researchers as having ‘low knowledge’ but had no impact on investors assessed as having ‘high knowledge’.

The researchers suggested that high-knowledge investors may hold stronger beliefs and/or be overconfident in relation to investments and their own abilities, and so may be more resistant to warnings that counter their beliefs.

The research also found that the current SEC disclaimer that firms are required to provide had no impact on return expectations, independent of the financial knowledge of investors.

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<sup>87</sup> A Hüsler, ‘[The role of investors’ objective financial knowledge on the assessment of risk disclosures in mutual fund advertisements](#)’, *Journal of Financial Services Marketing*, vol. 20(1), pp. 5–22, March 2015.

## Warnings can backfire

It is not just that policy makers can overestimate the effectiveness of warnings. Some mandatory warnings might even be counterproductive. The case studies below show that warnings can backfire in unexpected ways, consistent with other forms of disclosure. This evidence suggests a need for caution in the use of warnings, particularly in the absence of evidence that they will work as intended by policy makers.

### Case study: Minimum repayment warnings reduce repayments of some customers US

Minimum payment warnings on credit card statements were introduced with the aim of challenging consumers' present-bias and encouraging them to pay off debts faster. In the US, the warning credit card providers must include is a printed table comparing the difference in total interest paid if the customer pays only the minimum amount each month or were to pay off the total balance amount in three years.

Different combinations of disclosure have been provided to different subsets of consumers based on specific eligibility rules.

Using data available from the Consumer Financial Protection Bureau (CFPB), researchers found that these different combinations of disclosure had very different impacts on repayment behaviours and some caused borrowers to pay **less** than they had without the warning:<sup>88</sup>

- › accounts receiving the three year payment calculation and standard minimum repayment warning saw a 0.6% overall reduction in the fraction of balances paid and a 1.4% decline in the account months paid in full
- › accounts receiving the three year payment calculation without the more strongly worded warning caused some borrowers who had been paying their monthly balances in full to pay less

In contrast:

- › accounts receiving a non-amortisation warning and the three year calculation saw payments increase by US\$24 per month and had a small but insignificant increase in the average fraction paid
- › accounts receiving the minimum repayment warning and three year calculation increased payments by only US\$4 per month.

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<sup>88</sup>J Wang & BJ Keys B J, '[Perverse nudges: Minimum payments and debt paydown in consumer credit cards](#)' (PDF 509 KB), *Penn Wharton Public Policy Initiative*, Book 25, 2014. Note on data: The CFPB credit card database (CCDB) contains credit card accounts from large US credit card issuers, covering a large fraction of total outstanding balances in the market between 2008 and 2012. The statistics presented in this case study are derived from a subsample of issuers.

In a series of behavioural experiments in simulated social media environments, the FCA (UK) investigated the impact of the timing and design of risk warnings in advertising tweets by firms on the attractiveness of the tweets to consumers, as well as consumer searches and understanding.

The FCA found that, for character-limited social media, standalone compliance (the inclusion of a mandatory risk warning alongside positive information provided by firms in tweets about products) correlated with a reduction in the number of consumers who searched for information and in their understanding of risks. It also correlated with an increase in consumers choosing less suitable products.<sup>89</sup> The FCA researchers concluded that the warning had backfired.<sup>90</sup>

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<sup>89</sup> This research is consistent with Monash University research (see the case study on p. 10) and AFM research (see the case study on p. 11). All are examples of lab experiments where there is an unambiguous best choice (dominating other choices on all aspects).

<sup>90</sup> LT Mullet, L Smart & N Stewart, [Blackbird's alarm call or nightingale's lullaby? The effect of tweet risk warnings on attractiveness, search, and understanding](#) (PDF 4.02 MB), Occasional Paper 47, FCA, December 2018.

# Conclusion

Policy makers have heavily relied on mandated firm disclosure and warnings in consumer protection, and used them to drive competition in many financial services markets around the world – arguably becoming default responses to problems that are diagnosed as information asymmetry market failures.

Regulation has traditionally required firms to provide us (as consumers) with specific information because it has been assumed that, with this information, we will be:

- › able to protect ourselves from harmful products and services
- › equipped to buy products that are fit for purpose and offer the best value for money.

ASIC, the AFM and other regulators have, however, identified limitations to disclosure over a number of years. This report has described how:

- › disclosure does not solve the complexity in financial services
- › disclosure must compete with firms for consumer attention
- › firms can work around and undermine disclosure requirements
- › one size does not fit all – the effects of disclosure are different from person to person, and situation to situation.

Further, the report has identified that these limitations are not only contained to longer forms of disclosure but also apply to warnings and ‘simplified’ and ‘enhanced’ disclosures. Real-world testing and monitoring is required to assess their effectiveness before concluding such disclosures are necessarily ‘smarter’ or better at achieving good outcomes for consumers.

Disclosure is not then the silver bullet it was once believed to be. It places a heavy burden on consumers to, for example, overcome complexity and sophisticated sales strategies. Some research suggests that disclosure may be used more often by those of us who are already more informed and engaged.<sup>91</sup> And it can be less effective than intended or ineffective in solving regulatory problems – or even backfire, creating new, unanticipated risks for consumers.

This raises both opportunities and challenges for policy makers, regulators and industry to progress public policy discussions *beyond* disclosure, and understand and address consumer harms on a case-by-case basis.

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<sup>91</sup> On the related topic of financial advice, Bhattacharya et al. found that investors who most need the financial advice are least likely to obtain it. U Bhattacharya, A Hackethal, S Kaesler, B Loos, & S Meyer, [‘Is unbiased financial advice to retail investors sufficient? Answers from a large field study’](#), *The Review of Financial Studies*, vol. 25(4), pp. 975–1032, April 2012. Calcagno & Monticone’s model shows that advisers disclose their superior information only to the most knowledgeable investors. They also cite experimental evidence from Mexico that less-informed consumers indeed receive less information from financial institutions about saving and credit products than more experienced customers: see R Calcagno & C Monticone, [‘Financial literacy and the demand for financial advice’](#), *Journal of Banking & Finance*, vol. 50, pp. 363–380, January 2015.

While it is clear that disclosure still has a role to play in retail financial services markets – for instance, in contributing to market transparency, integrity and efficiency – no one regulatory tool can be a cure-all for all regulatory problems. Which tool, or combinations of tools, will be fit for purpose in any particular case requires:

- › a deep understanding of the underlying problem
- › regard to behaviourally informed insights, such as those set out in this paper – for instance, by increasing regulatory focus on complexity, choice architecture and how (financial) decisions are framed and made.

While the limits of generalised, mandatory ‘one size fits all’ disclosure are clear, there is promise in the opportunities available to firms to deliver good consumer outcomes. For example, firms can tailor and improve their product information and give it to consumers ‘just in time’.

Alternative regulatory tools that may improve consumer outcomes in some contexts include product design, governance and distribution.

Regardless of the type of intervention, regulators should continue to contribute to the evidence base of what works by monitoring the effect of interventions over time.

It is also incumbent on industry not to hide behind technical compliance with disclosure obligations. Firms that are proactive in aligning their product design, distribution and communications with consumer needs, capabilities and expectations will build customer trust and minimise regulatory costs.

# Appendix: Accessible versions of figures and notes

## Accessible versions of figures

This section of the appendix is for people with visual or other impairments. It provides the underlying information for the figures presented in this report.

Table 3: Complexity of ubiquitous financial services and products – Credit cards and insurance

Credit cards: Some of the features	Insurance: Some of the features
<p>Fees:</p> <ul style="list-style-type: none"> <li>› reward programs</li> <li>› dishonour fees</li> <li>› late fees</li> <li>› annual account-keeping fees</li> <li>› fees for exceeding credit limit</li> <li>› international transaction fees</li> <li>› cash advance fees</li> </ul> <p>Direct debits</p> <p>Balance transfer</p> <p>Credit limit increases and decreases</p> <p>Reward and loyalty programs, discounts, and cashback</p> <p>Discounts and promotional offers</p> <p>Additional services:</p> <ul style="list-style-type: none"> <li>› concierge services</li> </ul> <p>Insurance:</p> <ul style="list-style-type: none"> <li>› travel insurance</li> <li>› credit card insurance</li> </ul> <p>Interest rates:</p> <ul style="list-style-type: none"> <li>› purchase and cash advance</li> <li>› promotional interest rate</li> <li>› balance transfer</li> </ul> <p>Interest-free periods and no interest-free periods</p> <p>Charges:</p> <ul style="list-style-type: none"> <li>› monthly</li> <li>› merchant surcharge</li> </ul> <p>Card usage:</p> <ul style="list-style-type: none"> <li>› dual network – credit and debit</li> <li>› contactless terminal – PayPass and payWave</li> <li>› personal identification number</li> </ul> <p>Repayment amounts</p>	<p>Types of insurance:</p> <ul style="list-style-type: none"> <li>› car</li> <li>› consumer credit</li> <li>› funeral</li> <li>› health</li> <li>› home and contents</li> <li>› life</li> <li>› mobile phone, tablet and laptop</li> <li>› pet</li> <li>› travel</li> </ul> <p>Policy inclusions and exclusions</p> <p>Type of coverage – accidental damage versus listed events</p> <p>Level of coverage and exclusions</p> <p>Eligibility</p> <p>Excess amounts</p> <p>Premium costs</p> <p>Fees</p> <p>Assessment of risks requiring insurance</p> <p>Preparations and conduct required to ensure eligibility to make a claim</p> <p>Policy options for contents – new for old versus total value cover</p> <p>Policy options for building – total replacement versus sum insured</p> <p>Extended cover</p> <p>Cooling-off periods</p> <p>Cover note</p> <p>Derogations from standard cover</p>

**Note:** This is the information shown in Figure 1.

**Table 4: Insurance purchase choices using key facts sheets and PDSs**

Consumer purchasing choice	Key facts sheet (summary tool)	PDS (detailed tool)
Okay	35%	20%
Bad	11%	10%
Good	41%	41%
No insurance	13%	29%

**Note:** This is the data shown in Figure 2.

**Table 5: Investment decisions of consumers using a summary prospectus, KID and a combination of both**

Consumer investment decision	Summary prospectus	Combination	KID
All (€10,000) in best bond	24%	31%	34%
€5,000 to €9,999 in best bond	16%	26%	33%
€3,333 to €5,000 in best bond	29%	18%	9%
€0 to €3,333 in best bond	21%	13%	12%
€0 in best bond	11%	12%	13%

**Note:** This is the data shown in Figure 3.

**Table 6: Decision-making process for purchasing home insurance**

Process step	Few people	Some people	Most people
Start the process	› Start thinking and planning	N/A	› Start looking
Immerse and educate themselves	N/A	› Immerse in the world › Seek out trusted sources › Educate themselves on the features and benefits	N/A
Compare the various options	› Develop criteria	› Compare	N/A
Prioritise and decide	› Negotiate on terms	› Prioritise options	› Final check and decide
Justify choice	› Post-decision follow up	N/A	N/A
<b>Key finding</b>	The only two stages shared by most consumers were <b>Starting to look</b> and <b>Deciding</b>		

**Note:** This is the information shown in Figure 6.

## Notes for Figure 5

The diagram is based on six separate quantitative research studies of consumers who read or used mandated disclosure and/or information. Research findings included products and services from various sectors delivered by a range of channels. Sources include:

- › ASIC, [Report 416](#) *Insuring your home: Consumers' experiences buying home insurance* (REP 416), October 2014: 20% of consumers who took out a new home and building insurance policy or considered switching their policy reported that they read the PDS.
- › ASIC and EY Sweeney, [Report 481](#) *Australian Financial Attitudes and Behaviour Tracker: Key findings report: Wave 6* March 2018: 16–18% of consumers who purchased and/or made changes to a product – that is, a credit card, home loan, investments (excluding superannuation), personal loan, bank account – in the last six months reported that they had read the PDS; 24% of consumers who had changed jobs in the last six months and compared superannuation funds (to decide where to put their superannuation) reported that they had read the PDS.
- › B Custers, S van der Hof & BW Schermer, 'Privacy expectations of social media users: the role of informed consent in privacy policies', *Policy & Internet*, vol. 6, pp. 269–295, October 2017: 17% of consumers who created an account with a website (any) they had not used before always or often read the privacy policy.
- › ICA, [Consumer research on general insurance product disclosures](#), report, February 2017: 19% of consumers with car insurance and 26% of consumers with travel insurance reported that they used the PDS as an information source pre-purchase (but that it was not the main source of information). Among consumers with home building insurance, 22% reported that they used the PDS, and 23% used the key facts sheet as an information source pre-purchase (but it was not the main source). Among consumers with home contents insurance, 22% reported that they used the PDS, and 19% used the key facts sheet as an information source pre-purchase (but it was not the main source).
- › P Nguyen & L Solomon, [Consumer data and the digital economy: Emerging issues in data collection, use and sharing](#), Consumer Policy Research Centre, July 2018: 18% of consumers who signed up to a product or service in the last 12 months (channel not specified) reported that they read all or most of the privacy policy or terms and conditions.
- › Office of the Australian Information Commissioner (OAIC), [Australian Community Attitudes to Privacy Survey 2017 report](#), May 2017: 18% of consumers reported they always read the privacy policy before providing personal information for any product or service (channel not specified); 29% of consumers reported they read the privacy policy when going to any internet site.

## Key terms

<b>add-on insurance</b>	General insurance policies that are 'added on' to the sale of a primary product, most commonly with the purchase of a motor vehicle
<b>AFM</b>	Dutch Authority for the Financial Markets
<b>ASIC</b>	Australian Securities and Investments Commission
<b>ASIC research</b>	Research ASIC has either conducted or commissioned
<b>AUS</b>	Australia
<b>CCI</b>	Consumer credit insurance
<b>consumer</b>	Has the meaning given to 'retail client' in s761G of the Corporations Act (AUS)
<b>FCA</b>	Financial Conduct Authority (UK)
<b>ICA</b>	Insurance Council of Australia
<b>ICO</b>	Initial coin offering
<b>IPO</b>	Initial public offering
<b>KID</b>	Key Information Document (NL)
<b>NL</b>	Netherlands
<b>PDS</b>	Product Disclosure Statement – A document that must be given to a retail client for the offer or issue of a financial product in accordance with Div 2 of Pt 7.9 of the Corporations Act 2001(AUS) <b>Note:</b> See s761A for the exact definition.
<b>SOA</b>	Statement of Advice – a document that must be given to a retail client for the provision of personal advice under Subdivs C and D of Div 3 of Pt 7.7 of the Corporations Act (AUS) <b>Note:</b> See s761A for the exact definition.
<b>UK</b>	United Kingdom
<b>US</b>	United States

## Reference list

- Adams, P, Guttman-Kenney, B, Hayes, L. & Hunt, S, [Helping credit card users repay their debt: a summary of experimental research](#) (PDF 990.9 KB), research note, Financial Conduct Authority, July 2018.
- AFM, [A closer look at consumer borrowing: An analysis of decision-making behaviour and potential interventions in the consumer credit market](#) (PDF 428 KB), report, May 2019.
- AFM, [A randomized controlled trial on the effectiveness of mandatory investment information](#), article, 2019.
- AFM, [AFM publiceert herziene beleidsregel Informatieverstrekking](#) [Translation: AFM publishes revised policy provision for information], untranslated media release, 31 December 2018.
- AFM, [Applying behavioural insights to promote better credit decisions: Impact of the choice architecture on decision-making](#) (PDF 368 KB), October 2016.
- AFM, [Caution! Borrowing money costs money – A study of the effectiveness of a warning in credit advertisements](#) (PDF 1.01 MB), report, December 2016.
- AFM, [Investing in cryptos in the Netherlands: Market survey under Dutch consumers](#) (PDF 372 KB), 26 June 2018.
- AFM, [Let op! Geld lenen kost geld' geen onmiddellijk effect in verkoopomgeving](#) [Translated: 'Watch out! Borrowing money costs money' no immediate effect in sales environment], report, 6 December 2016.
- AFM, [Let op! Geld lenen kost geld is succes](#) [Translated: Watch out! Borrowing money costs money is a success], report, 29 December 2009.
- AFM, [Many misunderstandings about the meaning of prospectus approval by AFM](#), news article, 6 December 2012.
- AFM, [Prefilling income and expenditure has large and unwanted effects on telephone credit applications: a field experiment](#), news article, March 2018.
- AFM, [Rapport: Kennismaking met de financiële consument](#) [Translation: Meet the financial consumer], untranslated report, April 2005.
- AFM, [Wet op het financieel Toezicht](#) (Translation: Act on Financial Supervision), untranslated news article.
- ASIC, [Report 15](#) Hook, line & sinker: Who takes the bait in cold calling scams? (REP 15), June 2002.
- ASIC, [Report 126](#) Understanding investors in unlisted unrated debenture (UUD) market (REP 126), April 2008.
- ASIC, [Report 185](#) Review of term deposits (REP 185), February 2010.
- ASIC, [Report 279](#) Shadow shopping study of retirement advice (REP 279), March 2012.
- ASIC, [Report 292](#) Paying for funeral, how consumers decide to meet the costs (REP 292), July 2012.
- ASIC, [Report 341](#) Retail investor research into structured capital protected and capital guaranteed investments (REP 341), May 2013.

ASIC, [Report 361](#) *Consumer credit insurance policies: Consumers' claims experiences* (REP 361), July 2013.

ASIC, [Report 378](#) *Consumer testing of the MySuper product dashboard* (REP 378), December, 2013.

ASIC, [Report 416](#) *Insuring your home: Consumers' experiences buying home insurance* (REP 416), October 2014.

ASIC, [Report 426](#) *Payday lenders and the new small amount lending provisions* (REP 426), March 2015.

ASIC, [Report 455](#) *Consumer testing of the Choice product dashboard* (REP 455), December 2015.

ASIC, [Report 470](#) *Buying add-on insurance in car yards: Why it can be hard to say no* (REP 470), February 2016.

ASIC, [Report 481](#) *Australian Financial Attitudes and Behaviour Tracker: Key findings report: Wave 6* (REP 481), March 2018.

ASIC, [Report 540](#) *Investors in initial public offering* (REP 540), August 2017.

ASIC, [Report 576](#) *Member experiences with self-managed superannuation funds* (REP 576), June 2018.

ASIC, [Report 588](#) *Consumers' experiences with the sale of direct life insurance* (REP 588), August 2018.

ASIC, [Report 614](#) *Financial advice: Mind the gap* (REP 614), March 2019.

ASIC, [Report 622](#) *Consumer credit insurance: Poor value products and harmful sales practices* (REP 622), July 2019.

ASIC, [Submissions of the Australian Securities and Investments Commission – Round 6: Insurance](#) (PDF 247 KB), Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, October 2018.

ASIC, [Financial System Inquiry Interim Report: Submission by ASIC \(PDF 961 KB\)](#), August 2014.

ASIC, [Financial System Inquiry: Submission by ASIC](#) (PDF 2 MB), April 2014.

Bar-Gill, O, *Seduction by contract: Law, economics, and psychology in consumer markets*, Oxford University Press, Oxford, 2012.

Bartels, D, & Sussman, A, [Anchors, target values, and credit card payments](#) (PDF 3.14 MB), financial literacy seminar, University of Chicago Booth School of Business, 5 May 2016.

Bateman, H, Dobrescu, I, Newell, B, Ortmann, A & Thorp, S, [As easy as pie: How retirement savers use prescribed investment disclosures](#) (PDF 1.08 MB), Research Paper 326, Quantitative Finance Research Centre, March 2013.

Bell, S, *The provision of consumer research regarding financial product disclosure documents*, Financial Services Working Group, ASIC (unpublished material), December 2008.

Benartzi, S, *The smarter screen: Surprising ways to influence and improve online behaviour*, Portfolio, New York, 2015.

- Ben-Shahar, O & Schneider, CE, '[More than you wanted to know: The failure of mandated disclosure](#)' (PDF 504 KB), *University of Pennsylvania Law Review*, vol. 159, 2011, pp. 647–749.
- Bhattacharya, U., Hackethal, A., Kaesler, S., Loos, B., & Meyer, S, '[Is unbiased financial advice to retail investors sufficient? Answers from a large field study](#)', *The Review of Financial Studies*, vol. 25(4), pp. 975–1032, April 2012.
- Bossaerts, P & Murawski, C, 'Computational complexity and human decision-making', *Trends in Cognitive Sciences*, vol. 21(12), December 2017, pp. 917–929.
- Cain, DM, Loewenstein, G & Moore, DA, '[When sunlight fails to disinfect: Understanding the perverse effects of disclosing conflicts of interest](#)', *Journal of Consumer Research*, vol 37(5), 1 February 2011, pp. 836–85.
- Calcagno, R & Monticone, C, 'Financial literacy and the demand for financial advice', *Journal of Banking & Finance*, vol. 50, pp. 363–380, January 2015.
- Cialdini, RB, *Influence: The psychology of persuasion, Revised edition*, Collins Business, New York, 2007.
- Chesterfield, A & Fradkin, E, '[Learning from experience in financial services](#)', article, *Insight: Opinion and analysis from the FCA*, 28 August 2019
- Consumer Action Law Centre, '[What warning? Observations about mandated warnings on payday lender websites](#)' (PDF 1.98 MB), report, August 2013.
- Custers, B, van der Hof, S & Schermer, BW, 'Privacy expectations of social media users: the role of informed consent in privacy policies', *Policy & Internet*, vol. 6, pp. 269–295, October 2017.
- de Meza, D, Irlenbusch, B & Reyniers, D, '[Disclosure, trust and persuasion in insurance markets](#)' (PDF 425 KB), IZA Discussion Paper No. 5060, July 2010.
- Dubner, SJ, '[People Aren't Dumb, The World is Hard](#)' (Episode 340), podcast, Freakonomics, 11 July 2018.
- Dunaway, J, '[Mobile vs. computers: Implications for news audiences and outlets](#)' (PDF 352 KB), Discussion Paper Series #D-103, Harvard Kennedy School: Shorenstein Center, August 2016.
- Effective Disclosure Taskforce, '[Too long; didn't read – Enhancing general insurance disclosure](#)' (*Too long; didn't read*), report, Insurance Council of Australia (ICA), October 2015
- Elsen, M, van Giesen, R, Elshout, M & Leenheer, J, '[Consumenten en financieel advise. Consumentenonderzoek in het kader van de evaluatie van het provisieverbod](#)' [Translation: Consumers and financial advice. Consumer research for the evaluation of the ban on commissions], Dutch only, CentER Data, November 2017.
- Fletcher, A, '[The role of demand-side remedies in driving effective competition](#), Which?', 7 November 2016.
- Gabaix, X & Laibson, D, '[Shrouded attributes, consumer myopia, and information suppression in competitive markets](#)' (PDF 147 KB), *The Quarterly Journal of Economics*, vol. 121(2), 2006, pp. 505–540.
- Hoekstra, WB, Minister of Finance, '[Uitkomsten onderzoek consumptiefkredietmarkt](#)' ('Results of consumer credit market research', Dutch only), letter to parliament, September 2018.
- Hüsser, A, '[The role of investors' objective financial knowledge on the assessment of risk disclosures in mutual fund advertisements](#)', *Journal of Financial Services Marketing*, vol. 20(1), pp. 5–22, March 2015.

- ICA, [Consumer research on general insurance product disclosures](#), report, February 2017
- Jiang, S, & Dunn, L, 'New Evidence on Credit Card Borrowing and Repayment Patterns', *Economic Inquiry*, Western Economic Association International, vol. 51(1), January 2013, pp. 394–407.
- Jigsaw Research, [Consumer credit qualitative research: Credit cards and unauthorised overdrafts](#) (PDF 1.1 MB), report commissioned by the FCA (UK), April 2014.
- Johnson, EJ, Shu, SB, Dellaert, BGC, Fox, C, Goldstein, DG, Haubl, G, Larrick, RP, Payne, JW, Peters, E, Schkade, D, Wansik, B & Weber, EU, '[Beyond nudges: Tools of choice architecture](#)' (PDF 211 KB), *Marketing Letters*, vol. 23(2), May 2012, pp. 487–504.
- Kahneman, D, [Why we contradict ourselves and confound each other](#), interview transcript, 5 October 2017.
- Kaptein, M, *Persuasion profiling: How the internet knows what makes you tick*, English edn, Business Contact Publishers, Amsterdam/Antwerp, May 2015.
- Kell, P, ASIC Deputy Chairman, [ASIC and behavioural economics: Regulating for real people](#), speech, Queensland University Behavioural Economics Group (QuBE) symposium, 18 October 2016.
- Lunn, P, Bohacek, M, Somerville, J, Choidealbha, AN & MCGowan, F, [PRICE Lab: An investigation of consumers' capabilities with complex products](#), report, Economic & Social Research Institute, May 2016.
- Malbon, J & Oppewal, H, [\(In\)effective disclosure: An experimental study of consumers purchasing home contents insurance](#), research report of a study commissioned by the Financial Rights Legal Centre, Monash University: Australian Centre for Financial Studies, 2018.
- Mathur, A, Acar, G, Friedman, M, Lucherini, E, Mayer, J, Chetty, M & Narayanan, A, [Dark patterns at scale: Findings from a crawl of 11K shopping websites](#), paper, July 2019.
- Merritt, A, Effron, D A & Monin, B, *Moral self-licensing: When being good frees us to be bad*. *Social and Personality Psychology Compass*, 4/5, 344–357, May 2010.
- Mons, M & Baelemans, C, [Value chain excellence in retail](#), presentation slides (untranslated), IG&H Consulting, 14 July 2011.
- Mullet, LT, Smart, L & Stewart, N, [Blackbird's alarm call or nightingale's lullaby? The effect of tweet risk warnings on attractiveness, search, and understanding](#) (PDF 4.02 MB), Occasional Paper 47, FCA, December 2018.
- Navarro-Martinez, D, Salisbury, L, Lemon, K, Stewart, N, Matthews, W, & Harris, A, '[Minimum Required Payment and Supplemental Information Disclosure Effects on Consumer Debt Repayment Decisions](#)' (PDF 803 KB), *Journal of Marketing Research*, vol. 48, March 2011, S60-S77.
- Nguyen, P & Solomon, L, [Consumer data and the digital economy: Emerging issues in data collection, use and sharing](#), Consumer Policy Research Centre, July 2018
- North, G, '[Efficiency, fairness & irrationality: Incompatible or complementary?](#)', *Banking & Finance Law Review*, vol. 24(2), February 2009, pp. 311–342.
- Novio Research, [Onderzoek: Aflossingsvrije hypotheeken](#) (PDF 1 MB) ('Research: Free of down-payment mortgages', Dutch only), report commissioned by the Dutch Banking Association (Nederlandse Vereniging van Banken), November 2018.
- OAIC, [Australian Community Attitudes to Privacy Survey 2017 report](#), May 2017.

- Risseeuw, P, Kerste, M, Baarsma, B & Dosker, R, [Evaluatie provisieregels complexe producten](#) [Translation: Evaluation provision rules complex products] (PDF 710 KB) (SEO-rapport nr. 2010-44), untranslated report, SEO Economisch Onderzoek, September 2010.
- Sah, S, [Conflicts of interest and disclosure](#) (PDF 345 KB), research paper, Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, 1 November 2018.
- Sedgwick, K, [Crowdfunding: 46% of last year's ICOs have failed already](#), news article, Bitcoin.com, 23 February 2018.
- Slovic, P, [Perception of risk](#), *Science*, vol. 236(4799), 17 April 1987, pp. 280–285.
- Smart, L, 'Don't look here: Do risk warnings really work?', article, *Insight: Opinion and Analysis from the FCA*, 13 December 2018.
- Stavros, C, Russell, R, Westburg, K & Banks, M, *Development of consumer advice (warning) messages for SACC and consumer lease products*, research report for ASIC (publication forthcoming).
- Stewart, N, [The cost of anchoring on credit card minimum repayments](#) (PDF 59 KB), *Psychological Science*, vol. 20, 2009, pp. 39–41.
- Sunstein, CR, [Sludge audits](#), Harvard Public Law Working Paper No. 19-21, April 2019.
- van Steen, R, Visser, J, Eecen, A, [De effectiviteit van de Financiële Bijsluiter](#) [Translation: The effectiveness of the Financial Information Leaflet](PDF 382KB), untranslated report, TNS Nipo, 13 March 2009.
- Wang, J, & Keys, BJ, [Perverse nudges: Minimum payments and debt paydown in consumer credit cards](#) (PDF 509 KB), *Penn Wharton Public Policy Initiative*, Book 25, 2014.
- WhereTo, [Factors that influence retail investors in IPOs](#) (Attachment to REP 540), August 2017.
- Willis, LE, [Decision-making and the limits of disclosure: The problem of predatory lending](#), Research Paper No. 2005-14, Loyola-LA Legal Studies, June 2005.
- Willis, LE, Keynote speech at an ASIC Forum, *Regulating for results: Beyond disclosure* (unpublished), 2017.
- Willis, LE, [Performance-based remedies: Ordering firms to eradicate their own fraud](#) *Law and Contemporary Problems*, vol. 80(3), 2017, pp 7–42.
- Willis, LE, [When nudges fail: Slippery defaults](#) (PDF 656 KB), *The University of Chicago Law Review*, vol. 80, 2013, pp. 1154–1229.
- Willis, LE, Hastak, M & King, J, 'Customer confusion audits: Lessons from the use of consumer confusion audits in the United States', research report for ASIC (publication forthcoming).
- Zeisberger, S, Borsboom, C, Janssen, D-J, Strucks, M & Zijlstra, W, [Investor risk perception in the Netherlands](#) (PDF 807.3KB), research paper, AFM, 2018.