

Behavioural Economics (BE) Applied to Financial Disclosure

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BEworks
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Authors

The contents of this report was developed and written by:

Kelly Peters

Michelle Hilscher

Celia Fidalgo

Pauline Kabitsis

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Executive Summary

Executive Summary

As part of its mandate to standardize financial regulation in Canada, the Canadian Securities Administrators (CSA) introduced rules governing how fees and performance information should be disclosed to Canadian investors. These requirements, as outlined under the second phase of the Client Relationship Model (CRM2), are intended to protect Canadian investors through increased transparency and awareness of account performance and fees.

To evaluate the effectiveness of disclosures under CRM2 regulatory requirements, The Investment Funds Institute of Canada (IFIC) retained BEworks. The purpose of this collaboration was to develop evidence-based recommendations to improve the effectiveness of CRM2 reporting by reviewing the available academic research on disclosure, assessing current CRM2 related disclosure statements, and developing and testing new model reports.

Executive Summary

BEworks completed the following activities to assess and improve current CRM2 disclosures:

- 1) Interviews with Canadian and international stakeholders to uncover diverse approaches to disclosure and reveal what constitutes success.
- 2) A scientific research review of academic and industry research to identify key barriers to effective disclosure and develop tactics that are hypothesized to enhance how financial information ought to be disseminated.
- 3) A Behavioural Audit of CRM2 statements provided by IFIC's dealer members to identify disclosure practices likely to impede investor outcomes.
- 4) The development of new CRM2 statements containing practices derived from the literature and hypothesized to enhance investor outcomes.
- 5) The completion of a Randomized Controlled Trial (RCT) to benchmark the new behaviourally informed statements (BE statements) against the industry's current practices, as represented by a model CRM2 statement produced by IFIC.

Key findings that have emerged from the above activities are summarized in brief below.

Executive Summary

Interviews with Canadian & International Stakeholders

Our Process

BEworks interviewed representatives from 11 stakeholder organizations in Canada, the US, and Europe. This included registered dealer firms, the Investment Industry Regulatory Organization of Canada (IIROC), the Mutual Fund Dealers Association (MFDA), the Financial Industry Regulatory Authority (FINRA), and the European Fund Asset Management Association (EFAMA).

Our Key Findings

Interviews with the above stakeholders revealed there is a universal desire for fee and performance disclosure to:

- 1) Increase retail investors' comprehension of their statement

- 2) Facilitate informed decision making on the part of retail investors

Stakeholders from jurisdictions outside of Canada also indicated that statements are successful if they:

- 3) Increase investors' trust in the issuer of their statement and/or advisor

BEworks operationalized the above outcomes to create objective measurements of success.

Executive Summary

Defining What Constitutes Success for CRM2 Statements

Psychological Outcome	What Constitutes Success:
Attention	<ul style="list-style-type: none">• Encourages investors to spend more time reviewing their statement• Increases investors' awareness of the key elements of their statement (account performance, fees and services report, personal transactions)• Helps investors equally distribute their attention across all elements of their statement
Objective Comprehension	<p>Helps the investor better understand key elements of their statement, such as:</p> <ul style="list-style-type: none">• How much their account holdings have increased or decreased in the past year• Whether they made any contributions or withdrawals in the past year• How much they paid in fees in the past year• What activities were funded by the fees they paid (e.g., Advice)
Subjective Comprehension	<p>Increases investors' subjective comprehension of their CRM2 statement (i.e., confidence that they understand) while simultaneously boosting objective comprehension of the statement (i.e., accurate understanding)</p>
Informed Decision Making and Behavioural Intentions	<ul style="list-style-type: none">• Prompts the investor to think about their financial goals associated with their account• Prompts the investor to engage in behaviours that support their financial goals (e.g., seeking advice, increasing their contributions to the account, reviewing their investment goals)

Executive Summary

Scientific Research Review and Behavioural Audit

Our Process

BEworks reviewed academic and industry research about financial disclosures and associated psychological processes through an in-depth literature review. This review identified key barriers that impede effective disclosure and unveiled tactics that have been used in the past to enhance communications.

Informed by prior research, BEworks, conducted a behavioural audit of 5 annual CRM2 statements that were provided by a sample of IFIC's dealer member firms.

These statements were selected based on their industry representativeness and included variations of account complexity and positive/negative returns.

The Behavioural Audit entailed evaluating the content and structure of the CRM2 statements given the barriers to comprehension and attention that were identified through the scientific research review.

Executive Summary

Our Key Findings

- 1) There are key psychological processes that need to be facilitated when people look at CRM2 statements. Each of these psychological processes may be impeded by the barriers and biases set out in the figure below.
- 2) Given the below barriers and biases, tactics were taken from the academic research and BEworks’ proprietary case database to enhance investor awareness and comprehension of fees and performance.

The tactics identified can be categorized into what BEworks terms standard and innovative practices.

Standard Practices describe approaches that are low risk and easy to implement by industry. These practices are likely to have the desired impact on investors as they have been validated in multiple contexts across the academic literature.

Conversely, Innovative Practices describe tactics that are higher risk as they have been shown to be context dependent in the literature. As such, these practices require custom fitting to the particularities of CRM2 reporting and may be more difficult to implement by industry.

Attention	Comprehension	Perception	Judgment & Decision Making	Action & Behaviour
<ul style="list-style-type: none">• Information Overload• Lack of Goal Framing• Confirmation Bias• Lack of Saliency	<ul style="list-style-type: none">• Narrow Framing• Misalignment with mental Models of time and money• Innumeracy	<ul style="list-style-type: none">• Risk Aversion• Loss Aversion• Optimism Bias• Present Bias• Uncertainty	<ul style="list-style-type: none">• Perceived Hassle Costs• Choice Overload• Low Trust• Procrastination• Low Perceived Value	<ul style="list-style-type: none">• Perceived Hassle Costs• Lack of Agency• Intention-action gap• Status quo bias• Lack of reinforcement• Lack of accountability

Executive Summary

Standard Practices:

- Use Simple language and less of it
- Chunk thematic information
- Use visuals including graphs

Innovative Practices:

- Make investors' investment goals salient
- Make salient the link between goal-relevant information and investor behaviour
- Separate personalized content from generic content
- Provide benchmarks in the area of fees and investment performance
- Enhance the salience of long-term performance information
- Present events across time in linear form

Executive Summary

Developing BE Statements to Improve Investor Outcomes

Our Process

Behavioural Diagnostics – We diagnosed a list of psychological barriers that impede successful disclosure.

Ideation – We developed several instantiations of the Standard and Innovative Practices to address the barriers that were diagnosed.

Prioritization – We estimated the behavioural impact of each instantiation and shortlisted a subset of tactics for inclusion in the BE statements.

Prototyping – We grouped the prioritized instantiations by their feasibility for implementation and created two types of behaviourally informed CRM2 statements (BE statements) outlined in more detail below.

Executive Summary

1) Simple BE statements are simplified and shorter compared to the current state CRM2 statements.

The simple BE statements contain instantiations of the standard practices including:

Behavioural Intervention	Scientific Rationale
Traffic-light labelling where goal-aligned behaviours appear as 'green' and non-goal-aligned behaviours appear as 'red'.	To help investors recognize and evaluate the appropriateness of their own past behaviours and transactions.
Account transactions displayed as a line graph rather than a bar graph.	Investors will be better able to understand their actions across time if time is presented as a linear function; this aligns with how the brain processes time (as linear and sequential).
Long-term account performance (since inception) is presented before short-term account performance (current year).	Investors will be primed to think long-term rather than focusing on short-term account fluctuations.
Chunking information such that all fee, performance and transaction information are paired together.	To improve comprehension of information, fees, performance, and transactions are paired together as opposed to intermixing this information throughout the statement.

Executive Summary

2) Comprehensive BE statements contain all of the standard practices in addition to incorporating innovative practices.

The comprehensive BE statements contain instantiations of the innovative practices including:

Behavioural Intervention	Scientific Rationale
Whole-unit framing infographic showing how overall investment performance is comprised of three key components – transactions, fees/services, and market forces.	Investors will equally distribute attention across the statement and avoid skipping certain sections or over-emphasizing one element over others.
Statement checklist containing concrete action items for the investor (an implementation plan).	A checklist may help investors navigate through the statement, ensure they read the statement completely, and ensure that they balance their attention across the statement. The checklist may also help investors take action in ways that will support their goals, such as speaking with an advisor. This is because concrete, easy-to-accomplish steps are outlined in the form of an implementation plan.

Executive Summary

Behavioural Intervention	Scientific Rationale
Goal tracker for account.	<p>Reminding investors of a concrete account goal at the outset of the statement, in tandem with showing investors progress towards this goal may make the statement more meaningful and prompt greater motivation toward navigating through the entire statement.</p> <p>Further, seeing that some progress has been made towards the desired outcome may motivate investors in taking goal-aligned actions, such as speaking with an advisor or contributing more money in their account next year.</p>
Pricing transparency such that investors are shown how fees impact returns over time, but also how returns are lower in a savings account where fees may be minimal.	<p>Investors will have the context necessary to understand that fees are important and do impact their account goals. We anticipate that benchmarking the fees and returns of an investment account to those of a savings account will help investors understand that fees need to be considered in combination with performance, and not in isolation.</p>

Executive Summary

Experimental Testing

We evaluated the success of the simple and comprehensive BE statements by comparing them to the current state CRM2 statement (i.e., the model CRM2 statement produced by IFIC that is representative of the industry's CRM2 reporting practices).

Further, we evaluated the impact of an account increase and account decrease on investor outcomes. We hypothesized that investors shown an account decrease may react differently to the statement information compared to those who saw an account increase.

We recruited 2,597 English-speaking Canadians from across the country to participate in our experiment (average age = 51 years). Participants had a minimum of one investment product (e.g., mutual fund, stocks, bonds) and one year of experience as an investor.

We used random assignment in our experiment, meaning that each participant was randomly assigned to view one statement only. Investors were told that they should imagine they were reviewing their own statement for the year 2017, and that they had defined a goal of \$150,000 for the account.

Executive Summary

Key Findings

- 1) Compared to investors who viewed the current state CRM2 statement, investors who viewed the BE statements were more accurate when answering questions that assessed detailed comprehension (including questions about their rate of return, the definition of specific fee types, and whether they paid for advice). These investors were also more confident about their understanding of the statement they had viewed.

This suggests that investors' detailed comprehension of complex statement components was supported by a combination of simplified text, chunking information thematically, and the incorporation of traffic-light labelling to highlight goal-aligned investor behaviours.

Given that there was no significant difference between the simple and comprehensive BE statements, we can conclude that a boost to investors' detailed comprehension was achieved by incorporating tactics that fell under standard practices.

- 2) Investors who viewed the current state CRM2 statement responded more accurately to questions used to assess basic comprehension. This implies that they were better at remembering basic aspects of the statement, compared to investors who viewed the BE statements.

This finding was somewhat unexpected, but we hypothesize that investors viewing the current state CRM2 statement may be better at remembering basic aspects of its structure because it is similar to statements they are familiar with receiving. In contrast, the structure of the BE statements may be less familiar to investors, making it somewhat more difficult for them to remember what they have reviewed.

We expect that if implemented, investors would soon become familiar with the structure of the BE statements, and show equal if not superior memory for them.

Executive Summary

- 3) Investors viewing the comprehensive BE statement containing the goal-tracker reported planning to contribute more and withdraw less from their account in the following year. This effect was not present for investors viewing any other statements (BE or current state), which suggests that the behavioural tactic of incorporating a concrete goal and providing feedback about progress towards that goal motivated investors' intention to engage in more goal-aligned behaviours in the future.

This effect is particularly notable because the statement containing the goal-tracker intervention also contained the pricing transparency diagram showing investors how fees can compound over time and lower returns. The risk that pricing transparency might lead investors to engage in short-term and fee-focused thinking appears to have been successfully offset by the other behavioural tactics in the statement. These investors were no more likely

to look for lower-fee funds than investors who had not viewed the pricing transparency diagram. These investors were also as willing to seek and take advice, and reported being willing to pay as much for advice as investors not afforded more information about fees.

Together this suggests that bundling behavioural tactics can help to mitigate the risks of providing more information about fees, thereby supporting investors in becoming more informed and engaging in goal-based decision making.

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- 4) We found that across a variety of measures, the current state CRM2 statement (model report created by IFIC) performed well in general, though the BE statements further enhanced key investor outcomes.

In particular, investors who viewed the current state CRM2 statements:

- Reported that all aspects of the statement (including their transactions, performance and fees) were important to view. This implies that the statement did not bias investors to focus on only one part of the statement over another (e.g., performance)

- Viewed 92% of the pages in the statement. Even though the BE statements performed better with regard to percent of pages viewed, investors looking at the current state CRM2 statements still scanned a majority of the statement. This means that the current state CRM2 statements were not extremely tedious to scan.
- Intended to seek and take financial advice. Ratings for these measures were well above neutral which suggests that the current state CRM2 statement does a reasonably good job at conveying the importance of advice and encouraging investors to seek it.

Executive Summary

Recommendations and Next Steps

This research demonstrates how BE principles can be used to improve investors' annual statements. We have determined that even relatively minor changes to language and graphics have a significant and positive impact on investors' detailed comprehension of their statements and their intentions to take action in service of achieving their goals.

Based on the findings of this report, we recommend that dealer firms review the CRM2 statements they issue to investors and look for opportunities to apply behavioural tactics to simplify the content.

These tactics may include:

- Reducing the amount of text used in the statement
- Summarizing key pieces of information as salient bullet points presented near the top-left hand corner of the page
- Applying traffic light labelling to highlight investors' positive actions that should be continued in green (e.g., making contributions) and sub-optimal actions that should be discouraged in red (e.g., withdrawals). Action reinforcement was determined based on the assumption that the account goal was accumulation.

Executive Summary

An additional tactic that dealer firms might consider implementing is goal-framing combined with progress tracking. This took the form of the goal-tracker intervention in our comprehensive BE statement, where investors were reminded of their account goal and shown an image depicting how much money they had earned and how much further they had to go.

Goal-framing and progress tracking are particularly useful for helping investors plan for the long-term, and increase motivation to perform specific actions in the future to support their goals. In the case of our experiment, this included intending to contribute more and withdraw less money in the following year.

Goal-framing and progress tracking may have offset elements of the statement that could trigger investors to become fee-sensitive (i.e., fee benchmarking information) by highlighting the connection between

value and fees. In these cases, goal-framing and progress tracking maintained investors' intentions to seek and follow advice.

When dealer firms are considering whether and how to potentially incorporate goal-framing and progress-tracking into CRM2 statements, we would recommend keeping in mind that these concepts can be brought to life in various ways. If a goal-tracker is not feasible, there may be other ways to adapt the concept. What is important is for investors to be nudged closer to 1) articulating a clear goal for their account, and 2) receiving feedback about where they are relative to their goal. If it is not feasible to provide feedback about the amount currently held in the account relative to an end goal, then dealer firms could nudge investors to define a particular set of behaviours that they would like to achieve on a yearly basis and provide feedback about their success achieving these shorter-term goals.

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Finally, dealer firms may consider how our research applies to the industry's consideration of full-cost disclosure. While our first experiment did not test a statement containing full-cost disclosure, we did incorporate a fee benchmarking diagram that made fees salient to investors. We learned that the combination of goal-framing and progress tracking were components

that combated investors' tendency to focus solely on fees. In the context of CRM3 where full cost disclosure could become even more salient, we anticipate that goal-framing and progress tracking will be particularly important for nudging investors to understand that fees are connected to value. They may also nudge investors to consider their personal actions and to act in the service of long-term goals.

Project Background

Project Background

In accordance with newly introduced disclosure requirements under the second phase of the Client Relationship Model (CRM2), Canadian dealers and advisors have begun providing annual statements showing account-level fees and performance to their clients. The requirements outlined in CRM2 are intended to protect Canadian investors through increased transparency of account performance and fees as well as to reduce variability in client reporting across the Canadian investment industry.

To evaluate the effectiveness of disclosures under CRM2 regulatory requirements, The Investment Funds Institute of Canada (IFIC) retained BEworks. The purpose of this collaboration was to develop evidence-based recommendations to improve the effectiveness of CRM2 reporting by reviewing the available academic research on disclosure, assessing current CRM2 related disclosure statements, and developing and testing new model reports.

Up to now, measuring the impact of CRM2 statements has been evaluated using qualitative and/or correlational methods, such as focus groups, stakeholder interviews, and surveys. While this research is attempting to gauge the impact of CRM2 on investor knowledge and behaviour, such initiatives have not used controlled experimental methods to examine the cause-effect relationship between how information is presented and key investor outcomes such as attention, comprehension, and investor behaviour (hereafter referred to as “investor outcomes”).

Much of the prior research has also been limited to establishing baseline knowledge about how investors feel about CRM2 statements, rather than assessing how new ways of presenting information can change investor decision making, intentions, and behaviour.

Project Background

Given the scope and limitations of prior research, the introduction of CRM2 is an opportunity to improve investor outcomes by leveraging behavioural economic (BE) insights and gold standard experimental methods to develop and refine strategies for augmenting the industry's fee and performance reporting practices.

This work is especially relevant as regulators and the industry begin to work towards enhanced or full-cost disclosure associated with owning investment funds.

Overview of Research Approach

Overview of Research Approach

BEworks' research approach is comprised of the following activities:

Interviews with representatives from the following Canadian and international stakeholder organizations

- Investment Industry Regulatory Organization of Canada (IIROC)
- Mutual Fund Dealers of Canada (MFDA)
- Sterling Mutuals Inc.
- Manulife Financial Corporation
- Steadyhand Investments
- CARP Canada
- Financial Industry Regulatory Authority (FINRA)
- Investment Company Institute (ICI) Global
- United Kingdom (UK) Financial Ombudsman
- The UK's Investment Association (IA)
- European Fund and Asset Management Association (EFAMA)

Overview of Research Approach

While the specific questions we asked each stakeholder varied depending on the stakeholder type, the overarching goals of the stakeholder interviews were to a) understand how disclosure is being or has been conducted in a particular jurisdiction, b) identify how the impact of disclosure has been measured so far, and c) determine what successful disclosure means to particular stakeholder groups including how it would manifest itself objectively. We also asked stakeholders to reflect on how disclosure practices might be improved.

Scientific Research Investigation

BEworks conducted a scientific research review of academic and industry research pertaining to a variety of topics including, but not limited to, financial disclosures, attention, comprehension and financial literacy. This review identified key barriers impeding effective disclosure and unveiled tactics that have been used in the past to enhance communications.

Overview of Research Approach

Behavioural Audit of CRM2 Statements

BEworks reviewed a sample of actual CRM2 statements that were submitted by IFIC's dealer member companies. We audited a shortlist of 5 statements that were most representative of the industry and evaluated the content of the statements given the barriers to comprehension and attention that were identified through the scientific research review.

Randomized Controlled Experiment

To address the barriers and gaps that we diagnosed during our Behavioural Audit, we developed behaviourally informed statements (hereafter referred to as "BE statements"). To test the efficacy and impact of the BE statements, we built and conducted a randomized controlled trial (RCT) that allowed us to test the BE statements against a current state CRM2 statement.

The current state CRM2 statement was a model CRM2 statement created by IFIC. We selected it to serve as the control condition in our experiment because it was

representative of current client reporting practices we observed in our review of the sample statements submitted by the dealer firms.

In addition to comparing the BE statements to the current state CRM2 statement, we also built in test conditions that allowed us to consider statement impact in the case of an account increase or decrease.

Key outcomes that were measured during the experiment included attention, investors' objective and subjective comprehension of the statements, and investors' intention to engage in goal-aligned behaviours such as seeking advice or increasing their rates of contribution.

Establishing a Working Definition of Disclosure

Establishing a Working Definition of Disclosure

As behavioural scientists, we defined disclosure broadly as the act of providing individuals with information. This information may be readily accessible, or may be more difficult to access.

Disclosure can be mandatory or voluntary, financial or non-financial in nature, and disseminated in one or more formats including hard-copy, face-to-face, or digital/electronic form.

In the case of CRM2, Canadian investment dealers and advisors must disseminate information about the performance of investment accounts and the associated fees to retail investors on a yearly basis. This disclosure is communicated in the form of a written statement that meets the requirements set out in Sections 14.17, 14.18, and 14.19 of National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations.

According to Sections 14.17, 14.18, and 14.19 of the above document, disclosure reports must include:

- Fees, compensation, and other charges (e.g., operating charges, transaction charges, commissions, services charges, mark-ups and mark-downs),
- Investment performance (i.e., the market value of all cash and securities at various time periods)

In this white paper we will review research that is relevant to general disclosure practices and research that specifically considers how disclosure of fee- and investment performance-related information impacts investors.

**What is
Successful disclosure?**

What is Successful Disclosure?

To define what a CRM2 statement ought to accomplish for retail investors, we asked industry stakeholders to define “successful disclosure” during our interviews.

How Stakeholders Defined Successful Disclosure

Interviews with industry stakeholders revealed a universal desire for disclosure to:

- 1) Increase retail investors’ comprehension of their statement;
- 2) Facilitate informed decision making on the part of retail investors.

Stakeholders from jurisdictions outside of Canada also indicated that statements are successful if they:

- 3) Increase investors’ trust in the issuer of their statement and/or advisor

What is Successful Disclosure?

BEworks' Operational Definition of Successful Disclosure

As summarized above, interviews with industry stakeholders revealed that there is a universal desire for disclosure to increase comprehension and facilitate informed decision making on the part of investors. We further refined these outcomes for successful measurement.

Specifically, an operational definition of disclosure needs to answer the following questions:

- 1) Increase retail investors' comprehension of their statement: What should investors better understand about the statement?
- 2) Facilitate informed decision making on the part of retail investors: What actions should investors take, if any?

What is Successful Disclosure?

Behavioural Measures and Other Objective Outcomes

Answering the questions listed above helps us to develop an operational definition of successful disclosure. We will use this definition to compare the performance of the BE statements with that of current state CRM2 statements.

Our hypothesis is that CRM2 statements that incorporate behavioural tactics will outperform a control condition that consists of a CRM2 statement that is representative of what the industry currently provides to investors.

IFIC and BEworks have agreed that successful disclosure is marked by key psychological and behavioural outcomes. A sample of these measures of success are set out in Table 1 below.

What is Successful Disclosure?

Table 1: Sample Measures for Gauging the Success of Disclosure

Psychological Outcome	Criteria
Attention	<ul style="list-style-type: none">• Encourages investors to spend more time reviewing their statement.• Increases investors' awareness of the key elements of their statement (account performance, fees and services report, personal transactions).• Helps investors equally distribute their attention across all elements of their statement.
Objective Comprehension (Basic & Detailed)	<ul style="list-style-type: none">• Helps the investor better understand key elements of their statement, such as:<ul style="list-style-type: none">-How much their account holdings have increased or decreased in the past year-Whether they made any contributions or withdrawals in the past year-How much they paid in fees in the past year-What activities were funded by the fees they paid (e.g., Advice)

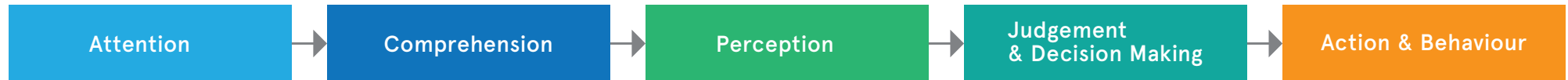
What is Successful Disclosure?

Table 1: Sample Measures for Gauging the Success of Disclosure

Psychological Outcome	Criteria
Subjective Comprehension	Increases investor's subjective comprehension (confidence in understanding) of their CRM2 statement
Informed Decision Making and Behavioural Intentions	<ul style="list-style-type: none">• Prompts the investor to think about their financial goals associated with their account.• Prompts the investor to engage in behaviours that support their financial goals (e.g., seeking advice, increasing their contributions to the account, reviewing their investment goals)

Psychological Principles that Apply to Disclosure

Psychological Principles that Apply to Disclosure



Disclosure documents provide investors with valuable information that, if aligned with investor psychology, may promote outcomes such as increased comprehension and goal-aligned behaviours. To be successful, disclosure must be presented in a way that takes into account the basic elements of how people process information.

Information passes through a series of steps before it is acted on: it must be attended to, understood, and evaluated.

In the following sections, we define the following psychological processes and describe what they mean for financial disclosure.

Psychological Principles that Apply to Disclosure

Attention

In order for us to understand and act on information, we must first be aware that it exists. Thus, the first step in the information-processing sequence is attention. In psychology, attention refers to a broad set of processes that impact how our sensory-perceptual systems, including vision, are oriented in space. Some attention-based outcomes we discuss are: Where do we tend to focus our attention? And, are we paying attention at all?

Regarding the first question, our attention can be oriented in space in two major ways: The first way is by our goals and expectations.¹ What we pay attention to in the environment can be impacted by a goal that we have in mind (e.g., we may be most interested in the performance aspect of our annual statement and seek out that information first). In this case, our internal goal guides where we search, and we will look for information that we expect to be most relevant to our goals.²

In the case where an investor's goals are unclear or not front-and-center, investors may be less motivated to review their statement or may engage with it in an uncertain and non-directed way.³ To address this lack of goal-framing, we can consider providing and reiterating an investor's goals immediately on their disclosure statement. Specifically, the goals that investors initially set at the inception of their account could be printed on the statement to make them more concrete and salient. In addition, the statement should emphasize all the elements that are relevant to goal achievement. For example, the statement should stress that performance, fees, and transactions are all important and should be considered together. If statements do not explicitly highlight that multiple elements contribute to goal attainment, then investors may be subject to narrow framing effects.

Psychological Principles that Apply to Disclosure

Narrow framing typically refers to instances where individuals evaluate decisions in isolation (e.g., evaluate a single risky gamble) without accounting for the series of decisions they have made (i.e., does this single decision make sense in light of the series of gambles recently made?).⁴ Here, we refer to narrow framing more broadly to describe instances where individuals process individual aspects of a set of information and neglect the whole.⁵

A second aspect of attention related to expectations is confirmation bias. This is the finding that people attend to information that is in line with their current beliefs.⁶ This means that if investors believe their account balance should have increased, perhaps because the market did well or because they made many account contributions, then information in line with those beliefs will receive most of their attention. In this case, they will primarily look for evidence that their account balance increased and ignore information about losses.⁷ This was demonstrated in a study by Park and Kumar (2010), which showed that

investors with stronger confirmation bias exhibited greater overconfidence and had higher expectations from their stocks' performance. Similarly, if investors have pre-existing beliefs about their account fees (e.g., if they believe they have a low-fee account), they will search for information that confirms that belief and ignore information that disconfirms it.

Even with clearly defined goals and expectations guiding where investors look, there are limits on how long investors will search for information that is difficult to find. Thus, the second primary way attention can be captured is by salient information. It follows that a lack of salience can have a detrimental impact on how investors attend to their statements. To address this, the format of the statement should support investors' search for key information that is relevant to their goals. Affording prime real estate to non-essential information may impede investors' search for more important information.

Psychological Principles that Apply to Disclosure

Some research-backed, simple ways to make important information salient are as follows:

- Make information large and easy to read⁸
- Use colour to make features stand out⁹
- Ensure high foreground-background contrast¹⁰
- Make information personalized to the investor (e.g., where possible, use their name, their advisor's name, and other information specific to their activities)¹¹
- Use visual graphics rather than text and tables where possible⁸
- Highlight important information in the main text or in a headline, as pop-out boxes and other text tends not to be attended¹²
- Clearly separate important information from other, less relevant information to ensure it is not lost in the clutter (i.e., prevent information overload)¹³
- Place information at the beginning of the statement (e.g., the first page) as it is more likely to be attended to than information at the end of the statement (e.g., the last page)¹⁴
- Place important information in the upper left-hand corner, which is the most-viewed location¹⁵

Spotlight on Caloric Labelling Disclosures

Spotlight on Caloric Labelling Disclosures

Caloric labelling is an example of information disclosure that has had mixed results. Introduced in numerous chain restaurants in the United States and Canada, caloric labels have been found in many cases to have no positive impact, and in some instances, an adverse effect, on the eating behaviours of restaurant patrons.¹⁶

Taking a closer look at this body of research, some key findings that warrant highlighting are as follows:

Firstly, caloric labels are unsuccessful when caloric content of menu items is presented without a recommended daily calorie limit. Even when this limit is presented, consumers may overindulge because they primarily attend to calories contained in their main course, not in their entire meal (e.g., main course, plus beverage, plus side dish). Surprisingly, caloric labels even promote over indulgence in dieters. It is thought that dieters overestimate the calorie content of foods as a strategy to motivate their dieting behaviour, and that caloric

labels lower dieters' expectations about how many calories are contained in menu options.

Given the above findings, one might be tempted to conclude that disclosing calories by way of menu labelling fails to change behaviour, however this would be a premature conclusion.

Research by behavioural economists has identified strategies that align with psychological principles to effectively increase healthy eating behaviours. This includes providing prime real estate to healthy menu options (e.g., having healthy sandwiches on the front of a menu and less healthy options on the reverse side) and using traffic light labelling to simplify the decision, and make it action-oriented (e.g., red labelling signals that a menu option should be avoided because it is high in calories).¹⁷

Psychological Principles that Apply to Disclosure

Comprehension

Comprehension of disclosure documents is aided by techniques that reduce complexity including using visuals and graphics, using simple language, and avoiding clutter.

Given that subject matter pertaining to investment accounts is complex, it is also important to consider how well-aligned the content being presented is with investors' mental representations of time and money. Particularly, investor innumeracy tends to exacerbate comprehension of disclosure. Investors are better at understanding dollars than percentages because percentages are more abstract and require more effort on the part of the investor.^{18, 19} Despite high levels of innumeracy among investors, with proper training, which might be facilitated by advisors, even novice investors

can learn to make investment decisions that are on par with experts. This suggests that biases related to financial literacy can be mitigated.²⁰

Comprehension can also be facilitated by comparing similar accounts. Comparing information relative to a reference point is a fundamental way that humans interpret information.^{21, 22} It is notable that current CRM2 statements lack mandatory benchmarks with regard to account performance and fees. We appreciate that this is by design because account-level benchmarking of performance and fees is challenging. Even so, the lack of benchmarks makes it difficult for investors to evaluate the performance of their accounts and the fees they are paying.

Psychological Principles that Apply to Disclosure

Perception, Judgement, and Decision Making

In the context of disclosure, we define perception as the process by which individuals evaluate a piece of information as being positive or negative. This would include how individuals perceive risk and make decisions under circumstances that involve uncertainty.

Whether information is perceived as positive or negative, or risky versus safe, depends on how an individual makes their evaluation. Unfortunately, these evaluations can be subjective, and as a result they can be affected by a number of systematic biases. These biases can affect an investor's perception that their account is performing well, or performing sub-optimally.

For example, people generally exhibit an optimism bias in which they expect aspects of their lives to be better than those of the average person. Most people believe that they are better drivers than average, or less likely to get divorced than average.²³ This translates to the

investor bias of believing that one's investments will perform better than may be reasonable to expect, or underestimating the importance of certain behaviours to facilitate a return (e.g., increasing one's rate of contribution).

The effects of optimism bias are further exacerbated by investors' present bias, which is the tendency to disproportionately weight outcomes that occur in the present relative to outcomes happening the future.²⁴ For example, studies have shown that individuals tend to prefer a small amount of money in the present, rather than waiting for a larger amount of money in the future.²⁵ This may be because investors are not thinking of their future selves. When individuals are concretely aware of their future self, by way of viewing an age-rendered image of themselves, this bias is mitigated and they are more willing to think long-term and prioritize goals that put the future self first.²⁶

Psychological Principles that Apply to Disclosure

Another fundamental bias impacting one's perception of financial decisions is loss aversion. People are naturally loss averse, meaning that losses loom larger than gains.²⁷ This bias is exacerbated when the loss is in the here and now: anticipating an immediate, on-the-spot loss of \$100 is more unpleasant than imagining the same loss in one year.

Loss aversion determines how an investor is likely to evaluate their statement, and can also tell us something about how they may react to bad and good news.

Researchers who examine gambling behaviour have demonstrated that investors are likely to be more risk-averse in times of positive earnings, and more risk-seeking in times when they are losing money.²⁸ This means that if investors have experienced a recent loss, they may be more likely to take the risk of switching funds than they would be if they were experiencing gains. It is less likely perhaps that an investor who has lost money will commit to increasing their contributions, because the pain of the transaction would be salient, even if the contribution were a gain for one's future self.

Spotlight on Risk Tolerance Research at BEworks

Spotlight on Risk Tolerance Research at BEworks

Investors often use seemingly immaterial details, such as how information is laid out, to evaluate financial information. This reliance on context cues is illustrated through research completed by BEworks on the topic of investor risk profiling.

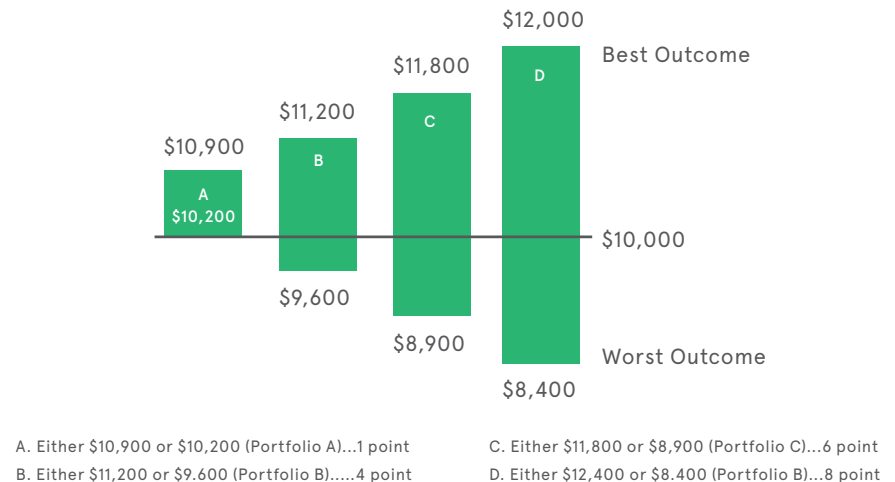
In this study we replicated the Goldilocks bias, which has been found in many decision making tasks. The Goldilocks bias explains why coffee shop patrons opt for medium cups of coffee significantly more often than small or large coffees – the middle option is deemed likely to be “just right” whereas the other options are perceived as on the extreme.²⁹

BEworks completed a laboratory study to understand how retail investors perceive investment risk, including how the financial services industry’s conventional risk profiling methods may influence investors’ reported risk tolerance.

The current risk profiling method entails retail investors reading a definition of risk tolerance, reviewing a set of portfolios that differ in their risk-reward profiles, and

ultimately selecting the portfolio that they would be most comfortable investing in, given their risk tolerance.

Potential Value of Investment After 1 Year



Spotlight on Risk Tolerance at BEworks

We hypothesized that investors' choices would be influenced by the way choices are presented, and as such would not reliably capture investors' actual risk tolerance, or predict future investor behaviours including risk composure or reactivity.

To test our hypothesis, BEworks ran a series of experiments with nearly 2,000 Globe and Mail Business Section readers. Our participants reviewed model portfolios and were instructed to choose the portfolio that matched their risk preference.

We systematically varied the set of portfolios presented to groups of participants in our experiment. We found that adding a low-risk or high-risk option to the set of

portfolios led to the respective decrease or increase of reported risk tolerance.

This research demonstrates that risk perception isn't static, and instead is influenced by the way that portfolios are displayed to retail investors. Not only do decoy options impact how much risk investors feel they would be comfortable shouldering, we also found that investors are less tolerant of loss when it is reported as a Delta (in real dollar values or percentage form) than if it is reported as a decrease in the market value of their holdings.^{29,30}

Psychological Principles that Apply to Disclosure

Translating complex information into beneficial decisions is a cognitively demanding task. As previously discussed, the steps to achieve this include: correct interpretation of information, identifying important factors, weighing those factors in accordance with one's needs and goals, making trade-offs, and finally, bringing all the factors together into a choice.³¹ Together, these steps are cognitively burdensome.

In a phenomenon known as choice overload, this cognitive burden may result in a series of negative outcomes, including procrastination, reliance on overly-simplistic decision rules, reduced confidence, and reduced

satisfaction with both the information provided and the subsequent decisions that are made.^{32, 33}

As such, reducing information overload is paramount. The simple act of limiting the amount of information being communicated to investors can help to promote informed choice. Thus, statements should focus on the presentation of primary information; secondary, "nice-to-have" information should be paired down or provided in a separate document. Statements will otherwise overburden investors, who may opt out of taking goal-aligned actions^{34, 35, 36} which could include contributing more to their accounts, or seeking advice.

Psychological Principles that Apply to Disclosure

Given the above, some regulators have mandated shortened financial disclosures in an effort to enhance investor decision making. For example, in 2009 the Securities Exchange Commission adopted a new simplified disclosure document, known as the Summary Prospectus. Under these new regulations, investors received a Summary Prospectus highlighting key information instead of the longer Statutory Prospectus. Interestingly, these changes had a limited effect on investment decision making.

In fact, the only gain from the Summary Prospectus was from a time perspective, such that investors shown the Summary Prospectus spent less time and effort to arrive at the same portfolio decisions as they would have after reading only the Statutory Prospectus. This finding emphasizes that document length is not the only variable that ought to be considered, but that organization and presentation of the content is also extremely important.

Spotlight on Energy Pricing Disclosure Research at BEworks

Spotlight on Energy Pricing Disclosure Research by BEworks

In 2010 the Province of Ontario installed Smart Meters across the province and introduced Time-of-Use pricing, in an effort to facilitate citizens to save money by engaging in demand shifting behaviours from On-to Off-Peak periods of the day. Despite these efforts, Ontarians failed to change their behaviours.

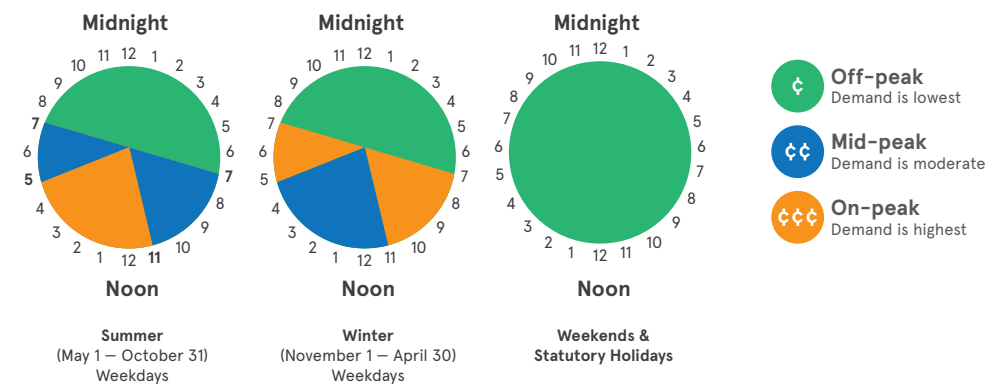
To help address this challenge, BEworks was retained by the Ontario Energy Board to diagnose the barriers to behaviour change, and apply behavioural tactics to support demand shifting behaviours.

Sample Insight: Information that conflicts with the brain's processing system is not well understood

Our preliminary research with Ontarians included a survey that provided evidence that Ontarians' poor comprehension of Time-of-Use pricing was at the root of the problem.

Accordingly, our team developed behavioural tactics, to be embedded in household energy bills, to help improve comprehension of Time-of-Use pricing and motivate energy conservation through demand-shifting behaviours.

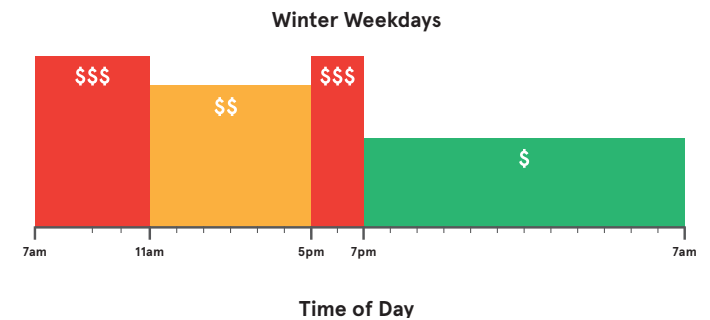
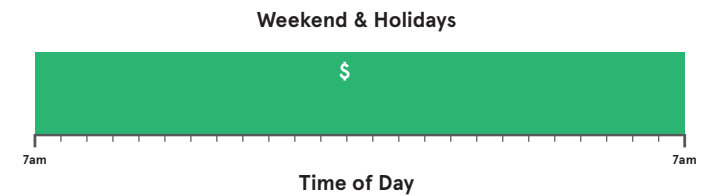
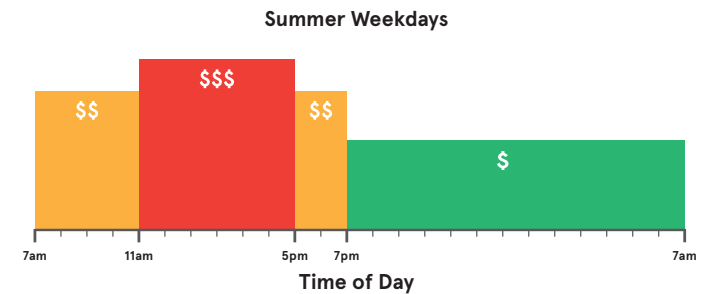
A key element in the bill that we hypothesized was impeding comprehension was the way in which the Time-of-Use schedule was depicted (see below).



Spotlight on Energy Pricing Disclosure Research by BEworks

We expected that Ontarians would have difficulty understanding the above image because it is not consistent with how our brain processes time. Visual cognition research indicates that time is perceived as linear and sequential. Therefore, showing time as a clock does not support Ontarians in understanding and remembering the Time-of-Use schedule. BEworks built challenger Time-of-Use schedules that illustrated time in a linear way (right).

This contributed to increased comprehension and memory for the Time-of-Use schedule, as demonstrated by a Randomized Controlled Experiment that we used to verify the efficacy of our BE-enhanced energy bill.



Psychological Principles that Apply to Disclosure

Action and Behaviour

Many studies looking to influence investor behaviour ask investors about their stated investment intentions. The caveat to these types of studies, however, is that they fail to understand the discrepancy between what people say and what they actually do.

In one study with 401(k) eligible employees, employees were offered financial education seminars to increase savings behaviour. At the conclusion of the seminar employees were asked their likelihood of enrolling in a 401(k) plan. Surprisingly, 100% of seminar attendees reported that they planned to enroll in a 401(k) plan, but one year later, only 14% of employees had enrolled.³⁷ This lack of follow-through on stated actions is commonly known as the intention-action gap.

The status quo bias is another pervasive barrier that prevents individuals from following through on their intentions. It is easier to keep up a habit than to replace it with a new one! The status quo bias is particularly common to situations where people feel uncertain or lack confidence; a condition that commonly characterizes decision making around money and investments.³⁸

Spotlight on Defaults in the Pension Industry

Spotlight on Defaults in the Pension Industry

People prefer what is familiar and are impelled to stick with the current state because it is easier to do so than to change course. This tendency is called the status quo bias, and it explains why defaults can be a successful tactic for motivating optimal behaviours.

In the area of retirement, the status quo bias makes it such that employees are better off if they are automatically enrolled into a pension plan, than if they have to sign-up. Requiring employees to opt into a plan challenges people's tendency to stick with the status quo and not enroll.

It is important to think about the impact of behavioural tactics both in the short- and long-term. Although defaults harness the status quo bias and help people engage in more optimal short-term behaviours, the use of defaults has also been demonstrated to decrease

employees' likelihood of engaging in other optimal behaviours, such as rebalancing or increasing their rate of contribution over time.

Taken together, these findings indicate that it is important to understand how behaviours connect to each other, and how nudging investors to do one thing can cause problems that emerge later down the line. Further, it is important to measure the impact of behavioural tactics in the short-term (i.e., what happens after a week, a month?) and in the long-term (i.e., what happens in a year, several years)? In this way, it is possible to anticipate the behavioural journey of the investor, and to build in behavioural tactics at various points in the journey to ensure that the benefits are sustained.

Behavioural Practices

Behavioural Practices

Use Simple Language and Less of it

Over the years, there has been an increase in the number of financial literacy resources provided to consumers by regulators and government bodies. Despite increased resources, people's comprehension of even the basics (e.g., what compound interest is) remains low. Not surprisingly, few people know the difference between bonds and stocks, the relationship between bond prices and interest rates, and the basics about risk diversification.³⁹ Even investors who claim to be experts often score poorly on objective measures of their actual expertise.⁴⁰

One way to effectively drive comprehension among consumers when it comes to financial disclosures is to use simple, non-technical language. Messaging with minimal text and simple language is easier to understand relative to messaging with complex, dense text. This is evidenced across a broad range of sectors that communicate complex information such as finance, healthcare, and energy.^{41, 42}

The benefits of reducing excess verbiage in a financial context can be seen through a field study conducted by the Financial Conduct Authority (FCA). In this study, consumers filing for redress with the financial services authority were sent either an original letter (control) or a simplified letter (treatment) with 40% less text. Not surprisingly, the simplified letter performed markedly better than the original letter, nearly doubling the response rate to claim redress.

Similarly, in the Ontario energy sector, regulatory labelling is dense and uses complicated language to inform customers about the electricity system. BEworks' proprietary research with a utility company found that many Ontarians receiving these jargon-laden bills responded below chance to simple comprehension questions. However, when information was transformed into a concise, easy to read format, comprehension of electricity fees improved by a whopping 500%.

Behavioural Practices

Overall, it is vital to present information in a succinct manner to help the customer quickly read and understand the decision that is required. People are usually busy and therefore don't have time to systematically read through their mail, so instead they skim their letters. This means that innocuous, irrelevant language is bound to further reduce engagement with the information.

Use Chunking to Boost Comprehension and Memory

Psychology research suggests that chunking information, or placing pieces of information that hold strong associations with one another into a single unit, improves comprehension and decision making.

Chunking words into phrases is necessary since the mind cannot hold more than approximately four to seven separate pieces of information in short-term memory.⁴³ Researchers have noted that when sentences are organized or chunked into meaningful phrases, comprehension of materials increases.⁴⁴ This positive effect of chunking is even more noticeable among low-ability readers.^{45,46} This could be accomplished in disclosure statements by condensing pieces of information and ensuring that similar content is grouped together. For example, different types of fees should be included in relatively close proximity to each other.

Behavioural Practices

Use Visuals Rather Than Tables to Increase Attention & Comprehension

Certain presentation approaches make it easier for consumers to process information and integrate that information into their choices. For example, presenting information in colour as opposed to black and white has been shown to increase comprehension.⁴⁷ People show significantly higher comprehension when complex information is presented in graphical, as opposed to textual or tabular formats⁴⁸. These findings indicate that if regulators wish to increase investor's comprehension, and their satisfaction with their own subsequent decision making, information should be presented in colour and in graphical format wherever possible.

People are particularly susceptible to perceptual alterations to visual materials when the information presented is complex and unfamiliar.⁴⁹ This means that how information is presented and framed will determine, to a large degree, what choices people end up making. When information is complex and unfamiliar,

people's preferences are constructed based on the presentation of information.

For example, a recent study investigated the effects of presentation style on health plan selection.⁵⁰ Participants were provided with comparative reports on health plans that all contained the same information, but had different presentation styles. Interestingly, providing visual cues helped participants focus on the quality of the health plans. Specifically, graphics such as stacked bar graphs, or star-ratings, were useful in conveying the comparative quality of plans.

These findings advocate for the use of images to evaluate account performance and providing context, in the form of account trends with similar holdings, or the market as a whole.

Behavioural Practices

In Summary

The standard practices outlined below have been demonstrated to meaningfully enhance decision making and behaviour and are low-risk and relatively easy to implement. As such, they would be valuable additions to CRM2 statements.

The innovative practices outlined below have also been demonstrated to be high-potential behavioural concepts

through past research; however they may be somewhat more difficult to implement. By incorporating these tactics into the BE statements that were tested in our experiment, we have been able to ascertain the relative value of adding more “blue sky” elements.

Behavioural Practices

Standard Practices

- 1) Use simple language, and less of it
- 2) Use chunking of thematic information
- 3) Use visuals including graphs

Innovative Practices:

- 4) Make investors' investment goal(s) salient
- 5) Make goal-relevant information and details about investor behaviour salient
- 6) Separate personalized content from generic content
- 7) Provide benchmarks in the area of fees & investment performance
- 8) Enhance the salience of long-term performance information
- 9) Present time in linear form

Impact of Disclosure Channel & Individual Differences on Investor Outcomes

Impact of Disclosure Channel & Individual Differences on Investor Outcomes

How Channel Delivery Impacts Disclosure Effectiveness

The consumption of financial information and consequent patterns of behaviour differ depending on the channel by which information is delivered.^{51,52} In recent years, digital technologies have become a common means by which investors interact with financial information, and here, we discuss the implications for their attention, comprehension, and behaviour.

There are many potential benefits to providing financial information online. Information can be easily customized on a screen, such that individuals can flexibly increase the size and fonts of the document, or easily search for

key words. Other interactive elements, such as pop-up boxes with definitions and explanations, can help save space in the main text.⁵³

Decision making on a screen can, in some cases, be easier than decision making offline. Screens allow individuals to readily compare information side-by-side, while in the physical world, financial information is often reported sequentially on paper.^{54, 55, 56}

Impact of Disclosure Channel & Individual Differences on Investor Outcomes

There are also potential drawbacks to online disclosure. Technology enables consumers to access more financial information than ever before, and while maximizing information may seem beneficial, exposure to large amounts of information decreases people's mental capacity and causes fatigue^{31, 54}. For example, a recent experiment showed that individuals who reported being heavy users of smartphones were less analytical and less knowledgeable than their peers who used smartphones less often. This study suggests that consumers using smartphones tend to offload their everyday thought processes to technology, which may make them more susceptible to biases in decision making.⁵⁵

Another drawback is that consumers are more likely to act impulsively on the internet. Fewer than 3% of consumers tend to read the Terms and Conditions on websites and mobile applications before checking "I agree".⁵⁶ Furthermore, some people are more likely to make impulse purchases online compared to offline.⁵⁷ Increased impulsivity may have negative consequences for their investment behaviour.

Impact of Disclosure Channel & Individual Differences on Investor Outcomes

How Financial Expertise Impacts Disclosure Effectiveness

In 2017, the average score obtained by Canadians on a general investment knowledge test administered by the CSA was astonishingly low – with 40% of people surveyed failing. This research reveals that investors lack sufficient understanding of basic aspects of investing, such as how bond prices change with interest rates or the impact of compound interest rates.

This lack of financial literacy is a challenge for industry, as it has a significant impact on investors' financial behaviours.³⁹ For example, more knowledgeable investors are less likely to change their portfolio composition in response to a downturn in the market.⁵⁸ Less financially literate investors are more likely to incorrectly use past performance as an indication of future performance.⁵⁹ Further, a lack of appreciation for basic financial calculations means that investors underestimate the impact of charges on returns over time.^{60,61}

This effect is compounded by numeracy difficulties, or challenges with math and statistics, that result in systematic errors in financial decisions that involve risk and uncertainty. For example, it has been found that communicating dollar value instead of percent had a greater impact on financially illiterate workers.⁶²

One way to mitigate the effects of numeracy, is to provide financially illiterate investors with advice from financially literate peers. A recent study on financial behaviour found that annotations on retirement savings funds (e.g., in the form of comments from others) disproportionately benefited individuals with lower financial literacy, such that the funds they chose performed similarly to those with high financial literacy. This was despite the fact that these individuals reported lower understanding of the funds' prospectuses.⁶⁴

CRM2 Model Report Audit: Key Findings

CRM2 Model Report Audit: Key Findings

Background

A behavioural audit applies a psychological lens to the statements reviewed in order to diagnose behavioural barriers that impede desired outcomes. Distinct from a compliance audit, a behavioural audit focuses solely on behaviours and how people perceive and comprehend information, rather than how aspects of the statement conform to regulatory standards. As such, a behavioural audit identifies why some colours will not be optimal for comprehension while a regulatory compliance audit purely identifies aspects of a statement that do not meet legal criteria. Our aim in applying a behavioural lens to the evaluation of the statements is to optimize communications while working within the restraints presented by regulations.

BEworks and IFIC put out a call to IFIC's dealer member companies for sample CRM2 statements. To ensure a

diverse sample, we requested that firms provide several statement examples, including:

- Simple reports sent to investors who have a small number of similar products (e.g., solely mutual funds).
- If available, complex reports (e.g., reports sent to investors who have several products) and multiple reports for those clients with more than one account.
- Statements showing an increase in market value.
- Statements, showing a decrease in market value.

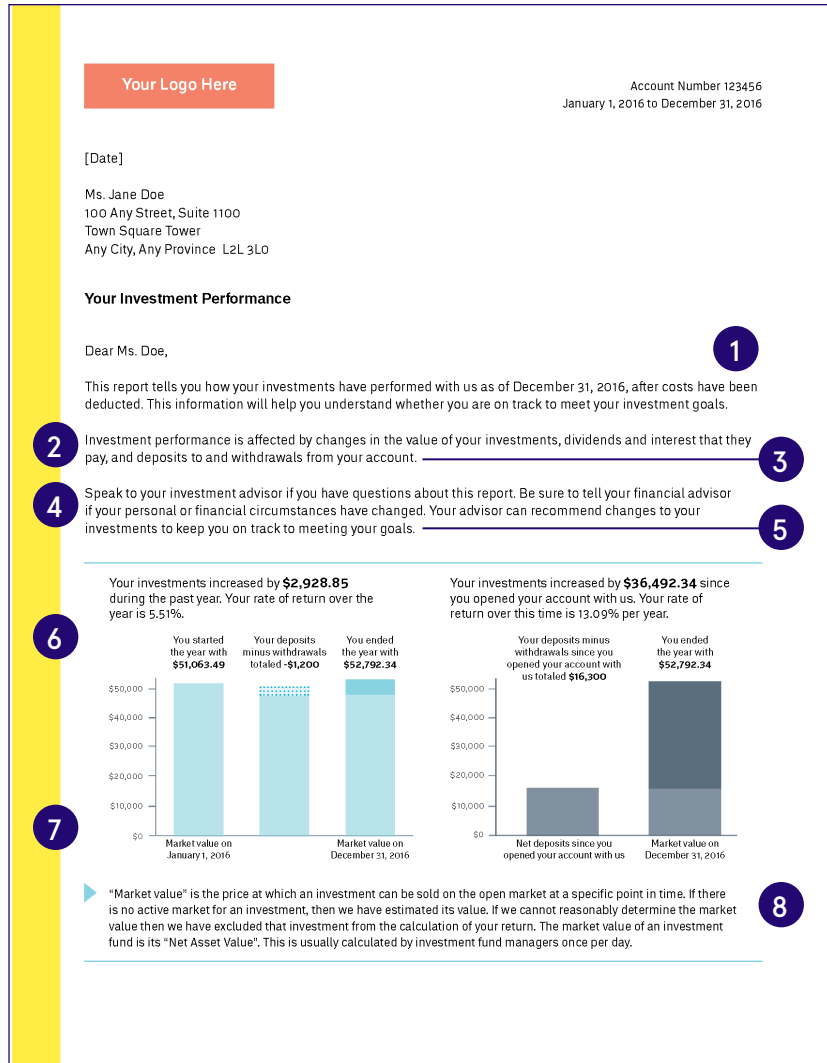
To enhance the caliber of our assessment we further requested sample statements containing actual performance data and metrics with any identifying client information removed.

CRM2 Model Report Audit: Key Findings

Our team reviewed all fifteen submissions and focused our audit on a sample comprised of five statements which included simple and complex statements, and statements with both increases and decreases

in market value. By ensuring that our sample included varying types of statements, we improved the applicability of our audit findings.

CRM2 Model Report Audit: Key Findings



- 1) **Low transparency** around costs may lead to distrust in the firm.
- 2) **Lack of accountability** given these transactions are not flagged as being actions of the client.
- 3) Client's actions are **not reinforced** as supporting or detracting from their goals.
- 4) Investors' **overconfidence** may mean they do not feel advice from a professional is warranted or necessary.
- 5) Lack of reference to one's end goal may cause **uncertainty around goal progress**.

CRM2 Model Report Audit: Key Findings



CRM2 Model Report Audit: Key Findings

Account Number 123456
January 1, 2016 to December 31, 2016

Change in The Value of Your Account with Us

This table shows what has caused the value of your investments to change.

	Past year	Since you opened your account with us (insert date)
Opening market value	\$51,063.49	\$0.00
Deposits	\$4,000.00	\$21,500.00
Withdrawals	\$ (5,200.00)	\$ (5,200.00)
Change in the market value of your account	\$2,928.85	\$36,492.34
Closing market value	\$52,792.34	\$52,792.34

Your Personal Rates of Return

The chart below shows your personal **total percentage return*** after costs have been deducted, over different time periods, all ending on December 31, 2016.

Keep in mind that your returns reflect the mix of investments and risk level of your account. When you review your returns, consider your investment goals, the amount of risk you're comfortable with, and the value of the advice and services you receive.

The numbers are based on a consistent industry-wide calculation known as the "money weighted" method. This method is the best way to understand how your investments have performed because it takes into consideration the timing of your personal deposits and withdrawals.

The calculation takes most dealer and fund manager costs into account. Most benchmarks do not reflect the costs of managing and operating the fund, so your personal rate of return is not directly comparable to a benchmark.

Your Personal Total Percentage Return

Past year	5.51%
Past 3 years	10.89%
Past 5 years	12.07%
Past 10 years	No data available - see note below
Since you opened your account	13.09%

If you have a personal financial plan, it will contain a target rate of return, which is the return required to achieve your investment objectives. By comparing the rates of return you actually achieved (shown in the chart) with your target rate of return, you can see whether you are on track to meet your investment objectives.

***Total percentage return** means the cumulative realized and unrealized capital gains and losses of an investment, plus income from the investment, over a specified period of time, expressed as a percentage.

Optional Footnotes (to use if appropriate):
The 10 year figure is not available because your account was opened within the past 10 years.
Due to changes in systems and record keeping practices prior to 2016, some historical data is not available.
This does not reflect guarantee information related to seg funds.

3 This model performance report was developed by The Investment Funds Institute of Canada in March 2015 to assist dealers in implementing the third phase of the CRM2 requirements. The industry is encouraging widespread adoption of this approach to facilitate investor understanding. Visit IFIC.CA for updates and guidelines on using this material, and other tools to help you implement CRM2 effectively.

- 1) **Repetition of core content** may overload the investor with information, make them less likely to read the statement, and cause them to skip parts of it.
- 2) Investors may bypass this information because paragraphs of text are **less likely to attract attention** than visual images such as figures and graphs. Given that the text describes complex calculations of money-weighted returns, it is likely to be misunderstood.
- 3) Research on disclaimers indicates that fine print is **often ignored** and can **prompt distrust**. This means that the investor may miss out on crucial information and feel like they cannot trust the statement, the issuer of the statement, and/or other investment professionals associated with their account. This sentiment may discourage investors from seeking clarification about their statement or accepting future investment recommendations.

CRM2 Model Report Audit: Key Findings

Account Number 123456 January 1, 2016 to December 31, 2016		
Payments We Received on Your Account		
Our Services	Cost (\$)	Total (\$)
1 Section 1: Amounts you paid for general administration of your account		
RSP administration	100	
Transfer fee	20	
Fee-based charge (see note below)	0	
De-registration/Re-registration	0	
Trustee fee	10	
Sub-Total: Section 1		130
3 Section 2: Amounts you paid for your specific purchase, sale or other transaction		
Fee for switching to different funds or products	10	
Mark-up fee	0	
Front-end sales commission (see note below)	106	
Sub-Total: Section 2		116
Total: Sections 1 + 2		246
4 Section 3: Payments we received from investment fund managers or others to provide services on your account		
Commission from investment fund managers for DSC investments (see note below)	503	
Management fee rebate (dealer portion)	0	
Payment from GIC issuers	0	
Trailing commission (see note below)	286	
Trailing commission rebate	0	
Sub-Total: Section 3		789
Total amount we received to service your account		\$1,035
In addition, over the past year, we received a referral fee of \$500 from [Name of Registrant] for referring your [description (e.g., portfolio manager)] business to them.		
5 About Commissions and Fees		
Sales commission for investment funds may be paid either at the time of your initial purchase, or when you take money out of the fund.		
<ul style="list-style-type: none"> Front-end commission: Front-end commission is paid from your initial purchase before your money is sent to the investment fund manager. Over the past year, you paid \$106 in this type of commission. Deferred sales charge (DSC): For some funds, your full deposit is sent to the investment fund manager. Upon receipt, the manager pays a commission to us. Over the past year, we received \$503 in this type of commission for your investments. When you take your money out of the fund, you might pay a deferred sales charge to the investment fund manager for the commission that we received. Deferred sales charges usually decline to zero after a specific number of years. 		
Trailing commission: An investment fund pays the investment fund manager a "management fee" for managing the fund. Your investment fund manager pays a portion of the "management fee" to us for the services and advice we provide to you on an ongoing basis. The amount we receive is called "trailing commission" and is paid each year for as long as you own the fund. Over the 12-month period covered by this report, we received \$286 in trailing commission for your investments. Part of the trailing commission is paid to your advisor to monitor your account and to provide you with advice. Be sure to seek this advice by talking to your advisor regularly about your account and your financial plans.		
The trailing commission is paid by you indirectly. The costs of any investment are important, whether they are charged directly or indirectly, because they reduce your return. More information about management fees and other charges to your investment funds is included in the <i>Fund Facts</i> document for each fund. Ask your financial advisor or fund manager for a copy.		
We are providing you with a separate performance report that shows your personal rate of return after costs have been deducted.		
Fee-based charge: Some dealers receive commission from the investment funds manager and also charge a separate fee that you pay directly.		

- 1) Jargon and technical language can lead to **processing disfluency** and low trust.
- 2) **Hassle costs** of flipping from one page to the next to look for pertinent information. It may be unclear where the relevant information can be found within the "note below".
- 3) **Low perceived value** in that fees are connected to abstract tasks, but not to concrete services delivered by investment professionals.
- 4) **Uncertainty** as to where these fees originated and who "Others" are.
- 5) Call to Action to seek advice may **not be salient** given that it appears on the bottom half of the statement and is not accompanied by contact details to make the suggestion actionable.

CRM2 Model Report Audit: Key Findings

Key Audit Findings

General Observations

The CRM2 statements we reviewed varied in length from 2 to 20 pages, and in accordance with Sections 14.17, 14.18, and 14.19 of CRM2 requirements, they included the following core components (where applicable):

Investment performance:

- a) In the past year
- b) Since inception of the investment
- c) Change in market value, and annualized rate of return (%)

The following fees and other costs charged to clients' accounts

- a) Each type of operating charge relevant to client's account
- b) Each type of transaction charge relevant to client's account
- c) Mark-ups, mark-downs, commissions, or other service charges for the purchase or selling of securities
- d) Unpaid amount of any enrolment fee
- e) Trailing commissions and necessary explanation

CRM2 Model Report Audit: Key Findings

Client's contributions to and withdrawals from the account in the past year

All of the statements included an investment performance report, and a fee report, with the investment report always appearing before the fee report. Half of the statements included the name and contact details of the client's advisor (these details are not required). Half of the statements also reported the specific list of investments held by the client, and provided the transaction history for the past year. A minority of statements listed the specific investment mix (e.g., proportion of bonds, and equities, either foreign or domestic, etc.).

Review of Statements based on Behavioural Practices

In the following Table 2, we summarize our key findings given the behavioural practices outlined earlier in this report.

The standard practices outline tactics that have been demonstrated across contexts to meaningfully enhance decision making and behaviour. As a result, these practices are low-risk and relatively easy to implement.

Conversely, the innovative practices outline tactics that have demonstrated high-potential in some contexts, but are not universal in their efficacy. As a result, these tactics may be more difficult to implement and require experimentation to ensure their efficacy. Many of the tactics outlined under the innovative practices are not required under CRM2 regulations. Nonetheless, these tactics represent an opportunity for dealer firms to differentiate themselves in the industry.

CRM2 Model Report Audit: Key Findings

Table 2: General Observations Related to Behavioural Practices

Criteria	General Observations
Use simple language, and less of it	Language is generally dense, technical, and hard to understand. Some statements included qualifying text meant to clarify key terms and concepts. When submitted to a literacy analysis, this content was found to be very complex (Gunning Fog index =20). On some occasions, this text was integrated into the body of the statement, so it was next to the terms it was meant to clarify. In other instances, it was less accessible and may have been overlooked by investors by being located in an appendix or listed later into the statement.
Use chunking of thematic information	Content is generally chunked by type (Investment Performance Report; Fees Report) which is consistent with regulations. However, these sections of the statement are not framed as a whole unit from the beginning, which diminishes the investor's ability to understand how they might integrate these components of the statement and connect them to their investment goals.
Use visuals such as graphs	The statements audited primarily report information in text- and table-form which is consistent with the 31-103 requirement. We observed that some graphs and/or pie charts have also been incorporated into the statements. While we recognize that Text and Tables are currently required, incorporating graphs and pie charts wherever possible may attract more attention than text and tables.
Make investors' investment goal(s) salient to help them navigate the statement	Although some of the statements directed investors to think about the information therein by considering their investment goals, none of the statements incorporated information about the investor's goals (when available), or otherwise provided tools or tactics to help investors start thinking in a goal-directed way.

CRM2 Model Report Audit: Key Findings

Table 2: General Observations Related to Behavioural Practices

Criteria	General Observations
Make goal-relevant information and details about investor behaviour salient and easy to find	Information has not been framed according to investors' goals, and line items that could be emphasized as being the product of investors' behaviours in the past year, such as contributions or withdrawals they made, are not highlighted.
Separate personalized content from generic content	The statements contained large amounts of generic content, intermixed with personal information that is presented in a highly technical manner. For example, the audited statement mentions tracking progress towards "investment goals" but there is no mention of the individual's specific goal.
Provide benchmarks in the area of fees and investment performance	This is an area of potential opportunity, as investors are currently reviewing fees and investment performance without an appropriate context, therefore making misinterpretation more likely.
Enhance the salience of long-term performance information	The statements always presented annual performance of investors' accounts and provided more historic context in the form of "from inception" trends. We observed an opportunity for long-term performance to be made more salient to investors so that they are primed to think in a longer-term way, and to avoid focusing on short-term account performance.
Present time in linear form	Generally, investment performance was presented in a way that is consistent with how investors are likely to conceptualize the passage of time. That said, we believe there is an opportunity to test the relative impact of showing investment performance across different time horizons (e.g., long-term vs. short-term).

CRM2 Model Report Audit: Key Findings

A Closer Look at Barriers Diagnosed during the Audit

1) Information overload may impede attention

The statements contain a substantial amount of information and are at times repetitive.

The sheer amount of information presented may dissuade investors from reading the statement from beginning to end. They may be unwilling to invest time and effort into reviewing the document, or they may skim just the prime real estate, such as the first page and the upper-left hand corner of the pages.

Furthermore, the placement of core components of the statement (fees, performance, contributions) may prime investors to focus on certain components and skip others. In all statements that we audited, fees were reported after investment performance. This may encourage or exacerbate the well-documented

investor bias as detailed by Fisch & Wilkinson-Ryan, 2014 that leads investors to overestimate the degree to which past performance predicts future returns and underestimate or entirely dismiss the future certainty of costs stemming from management expenses and fees.

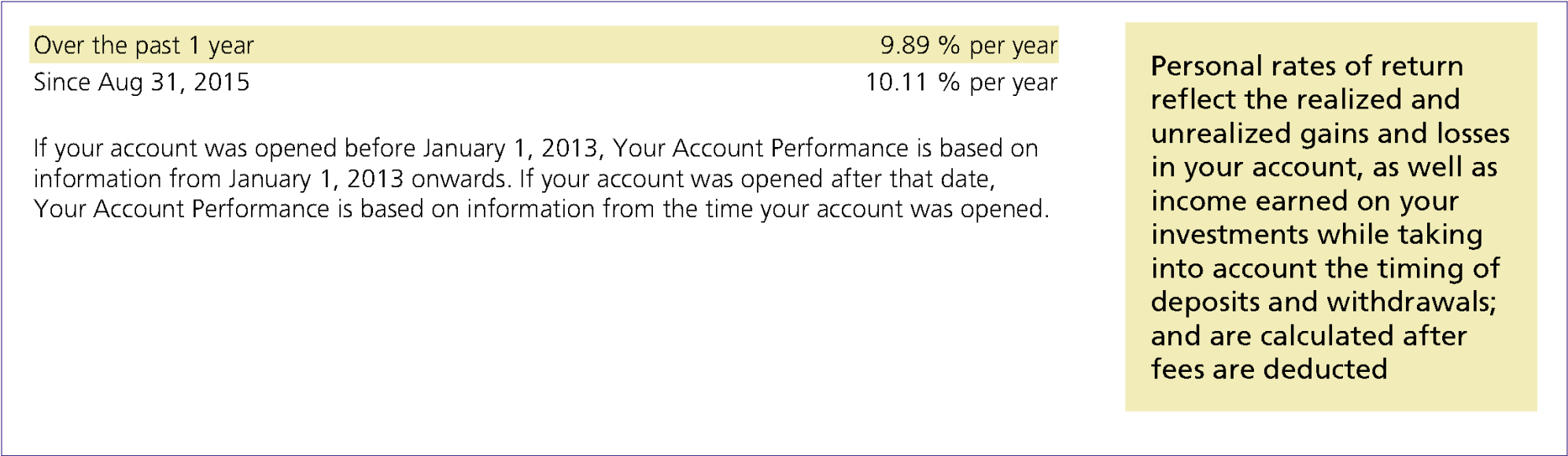
2) High complexity may decrease attention, comprehension, and perceived value

The statements contain jargon and technical language.

While some of the statements include qualifying language and attempt to translate technical terms into plain language, this language is frequently included in an Appendix or located towards the end of the statement, rather than being integrated alongside the material it is meant to clarify.

CRM2 Model Report Audit: Key Findings

Figure 1: Example of Qualifying Text Integrated Effectively into Statement



The qualifying language itself is complex. We submitted a sample of qualifying text, as captured below in Figure 2, to a literacy analysis, known as the Gunning Fog Index. The Gunning Fog Index is a commonly used evaluation in linguistics that indicates the number of years of formal

education a person would require to understand a piece of text on the first reading. The index is calculated using an algorithm that takes into account the weighted average of the number of words per sentence and the number of complex words per sentence. The higher a fog index

CRM2 Model Report Audit: Key Findings

score, the more complex the readability of the text and the greater level of education required to understand the information. Generally speaking, a fog index score of 8 or lower is optimal for universal understanding.

Surprisingly, the text that underwent the Gunning Fog Index revealed that even basic elements of the statements are evaluated as being very difficult to read, with a Gunning Fog Score of 20 (the reading level of a college graduate).

Figure 2: Text Submitted to Literacy Analysis

These costs are associated with the ongoing monitoring and communication required by the investment industry and include the costs of: record keeping, detailed reporting, legal expenses, and third-party custodian fees.

Net amount invested is the total amount of money you've invested including deposits and transfers in, less all withdrawals and transfers out.

Market value is the amount at which an investment could potentially be redeemed on a specific date.

Change in the value includes your investment performance (growth or loss) and all transaction details on your funds including deposits, withdrawals, fees and reinvested distributions.

CRM2 Model Report Audit: Key Findings

The complexity of the content may dissuade investors from reading the statement from beginning to end. investors may feel that the statement is not something they will understand and as a result fail to invest time and attention to navigate through the statement.

The complexity of the content may also negatively impact both investor objective and subjective comprehension. This can impede investors' ability to make informed decisions and may also erode trust. Related to the latter point, there is ample evidence to suggest that when content is hard to understand and promotes feelings

of uncertainty, this can promote mistrust of the content and the issuer of the content.

Exploratory research completed by the BEworks' Lab has revealed that the mere presence of technical fine print at the bottom of a page can negatively impact retail consumers. Compared to documentation without fine print or containing simplified fine print, consumers viewing technical fine print perceived that products/ services were much lower in quality and value.

CRM2 Model Report Audit: Key Findings

3) Non-consolidated reports induce choice overload and mental accounting

Investors with multiple accounts are generally provided with multiple reports as opposed to a single, consolidated report. Non-consolidated reports may be problematic for investor decision making for several reasons.

Firstly, if investors receive multiple statements at one time, they may feel it would be a significant time commitment to review the statements. This may lead investors to be dissuaded from reviewing all reports, or selectively motivate investors to attend to certain reports. For instance, investors may select to review reports that detail increases in market value rather than those reporting decreases.

Secondly, non-consolidated statements place greater demands on investors, in that they make it more difficult

for investors to assess the degree to which they are progressing (or not) towards their investment goals.

Assessing how one is doing – how close or far one may be from their financial goals, requires aggregating multiple factors including current account holdings, changes in market value, fees and contributions made by the investor across numerous statements.

Receiving multiple statements may also promote decision paralysis and procrastination. Imagine that an investor is advised to invest more in order to promote their investment goals. When investors receive multiple statements, they may delay depositing money because they are faced with too many options and fear making the wrong choice.

CRM2 Model Report Audit: Key Findings

4) Core components of the statement lack whole-unit and goal-related framing

The CRM2 statements we reviewed do not cue investors to think about the elements of the statement (investment performance summary, fees report, transaction history) as a unified “whole-unit”. If prompted to think about the components as a “whole-unit” investors would be more likely to divide their attention across the statement and develop an overall understanding of their statement that integrates information from each section. Lacking whole-unit framing, investors may focus on one part of the statement and neglect other components.

The CRM2 statements we reviewed do not present investors with explicit goal-related information that would prompt them to think about their long-term financial and investment goals. Thinking about a goal

can help investors to overcome their present bias and prioritize long-term outcomes. Goal-framing is also beneficial because it can motivate investors to engage in goal-aligned behaviours which could include actions such as contributing more, or seeking advice.

Whether or not investors have a defined goal for their account, no defined goal for their account, or an implicit goal related to the nature of the account (e.g., it is an RSP or RESP), goal-framing can be helpful. Crucially, goal-framing can be achieved in different ways depending on the investor.

CRM2 Model Report Audit: Key Findings

For investors who:

- 1) have defined a goal for their account: goal-framing would mean that the investor is reminded what their goal is, and provided with feedback about how they are progressing;
- 2) do not have a defined goal for their account: goal-framing would take the form of nudging investors to start thinking about goals and perhaps articulating a general goal for their account;
- 3) have an implicit goal in mind that stems from the nature of their account (e.g., it is an RSP or RESP):
 - goal-framing would encourage the investor to make the goal more specific, and to think about it in a way that transforms their goal so that is more concrete.

Given the above observations, we anticipate that when reviewing their statements, investors mistakenly focus mostly on investment performance information, and do not understand that future returns are the product of multiple factors (not including past investment performance). Furthermore, we do not anticipate that investors relate the information in the statement to their investment goals, or past commitments and subsequent behaviours.

CRM2 Model Report Audit: Key Findings

5) Fees and investment performance lack context.

The fees reported in the statements we reviewed represent what an investor paid over the last year, but do not benchmark this amount against historical fees or the range of fees charged in the industry for similar products. While the provision of such information is not a regulatory requirement, the absence of benchmarks may promote certain psychological biases on the part of investors.

Since fees are presented in a vacuum, investors are challenged to evaluate fees objectively, and instead are likely to use mental shortcuts. A common shortcut

that investors, particularly inexperienced investors, use to evaluate fees is that high fees are, a proxy for the quality of a fund or the holdings in an account.⁶⁶ Investors' perception that fees are reasonable may also be based on whether they saw an increase or decrease in the market value of their investments in the past year.

Behaviourally Informed CRM2 Statement

Behaviourally Informed CRM2 Statements

We developed BE statements that (1) address the primary barriers identified, and (2) adhere to the Behavioural Practices.

Simple BE Statements

These statements have been simplified and their content has been restructured to improve investors' attention and comprehension.

Comprehensive BE Statements

These statements include all elements found in the simple statements plus more innovative practices that we hypothesize will have a meaningful impact on investor outcomes, though they may be somewhat more complex to implement.

On the following pages we present the simple and comprehensive BE statements, including the key practice tactics and their accompanying rationale.

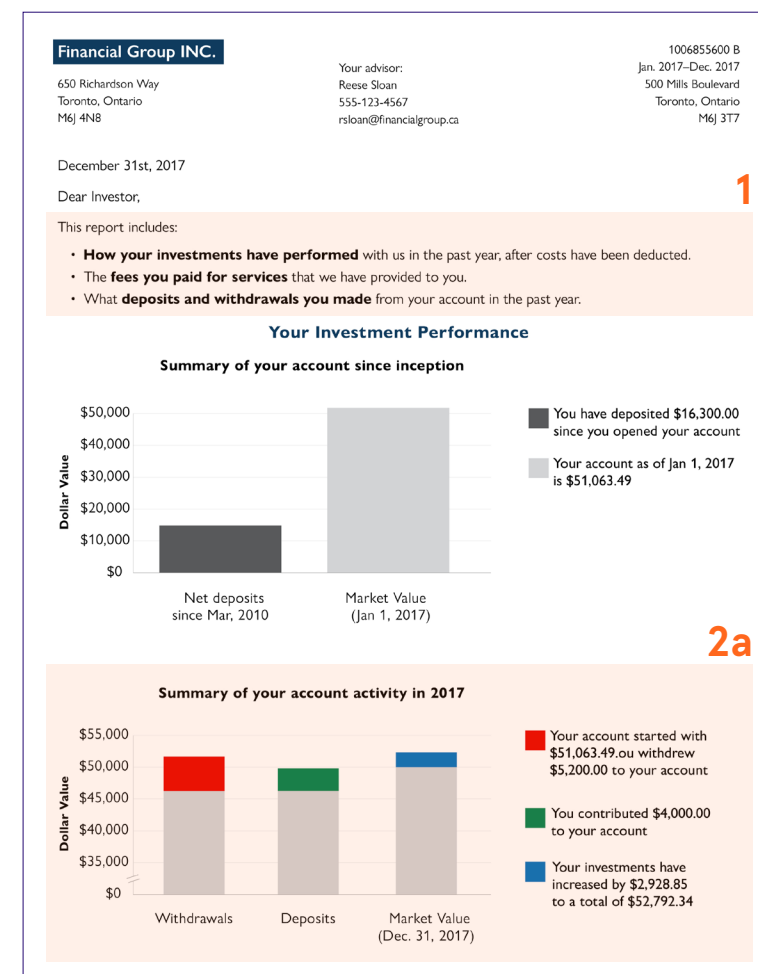
Please refer to Appendix E for the full-sized versions of the statements we tested.

Behaviourally Informed CRM2 Statements

- 1) The complexity of the opening paragraph has been simplified by reducing its length and made more salient through the use of bold text and bullet points to make the key components of the statement easier to identify. The bulleted list has been placed in the left visual field to help investors “stumble” across it. Investors’ leftward bias of attention will make it likely that this part of the page gets looked at more often than other parts of the page.

Additionally, we chunked information so that investors would recognize that there are discrete parts to the statement that each warrant attention and consideration. To implement chunking, information throughout the statement was grouped into key categories (performance, fees, investor transactions). Then each category was presented sequentially in the statement. Information in the original CRM2 statement was not chunked in that information about fees, performance, and transactions were intermixed and key themes were not flagged for the investor and used as “milestone markers” in the statement.

Page 1 – Simple BE Statement 1



Behaviourally Informed CRM2 Statements

2a) We used traffic-light labelling to highlight investors' behaviours in the past year, and to encourage goal-aligned behaviours in the future (which could include making more contributions or fewer withdrawals). Market value has been illustrated in blue, which we hypothesize will tag it as neither good nor bad news. This, we anticipate, may discourage investors from focusing on short-term annual performance, and nudge investors to think long-term. Furthermore, traffic-light labelling reinforces behaviours that support investors' goals. We anticipate that when an investor recognizes that their efforts have been noticed, this will motivate them to keep up the good work in the year to come. They may also place more value on the statement and the investment professionals associated with their account.

Nudging long-term thinking may further be encouraged by using framing, which in this part of the statement involves presenting investors with a summary of their long-term account performance (since inception) before showing them their short-term account performance (the past year).

Finally, elements such as traffic-light labelling help to personalize the statement. Personalization has been used extensively throughout the BE statements, while the original statement contains less personalized content. It is important to note that this personalization is somewhat “watered down” by being intermixed with generic content, and not thoroughly highlighting past investor behaviours such as contributions and withdrawals.

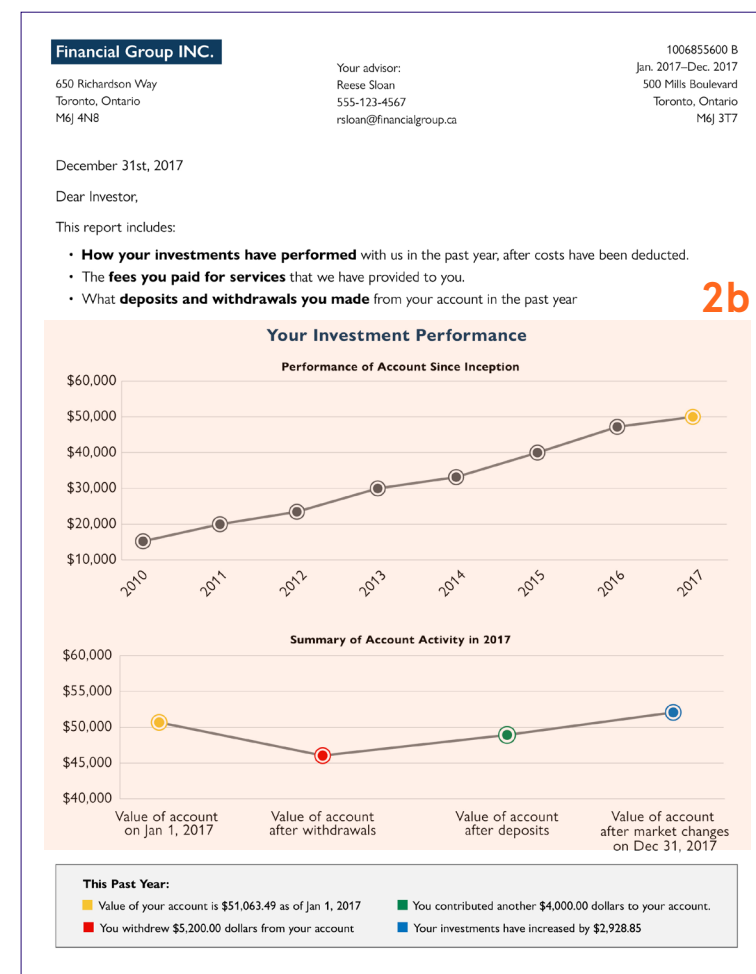
Behaviourally Informed CRM2 Statements

2b) We developed an alternative way to show account performance. While in 2a, performance is depicted as a bar graph, in this version of the statement, performance is depicted as a line graph. Based on prior research showing that the brain understands “time” as linear, we suspect that investors will better understand investment performance when the passage of time (monthly and since inception) is shown as a line graph.

Additionally, positioning long-term account performance (since inception) before short-term account performance (the past year) should prime investors to “zoom out”. This use of broad framing should combat investors’ present bias which may motivate investors to over-prioritize a single year’s performance.

Traffic-light labelling and personalization have also been incorporated into this version of the statement according to the rationale set out above in 2a.

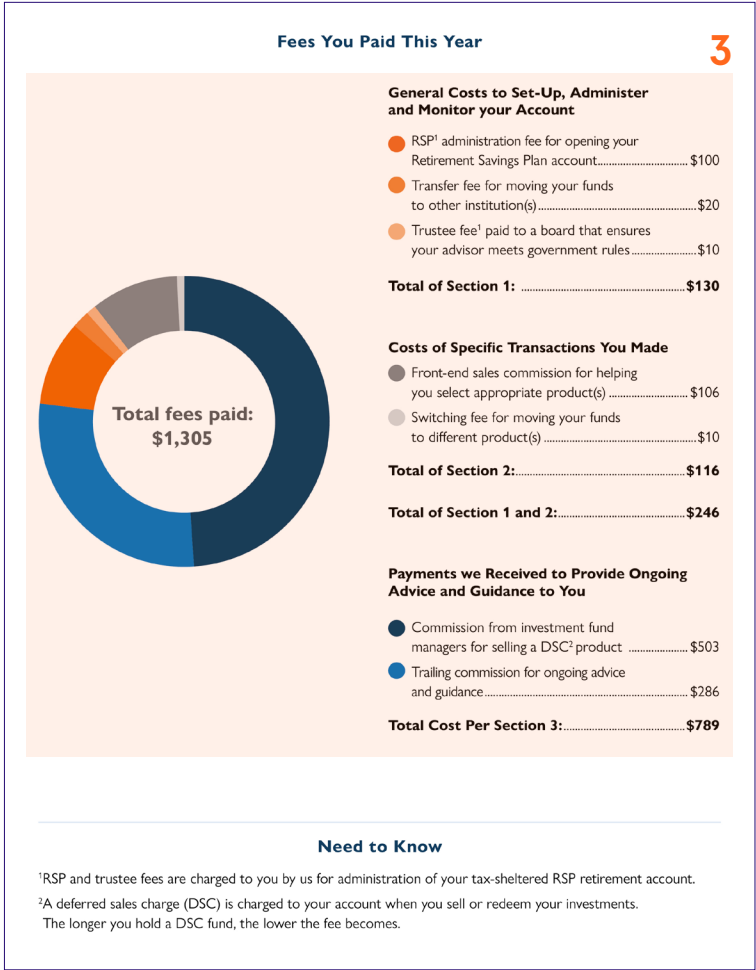
Page 1 – Simple BE Statement 2



Behaviourally Informed CRM2 Statements

3) Compared to the original statement which presents background information about fees at the end of the statement, we made this information more salient by incorporating it directly in the Fee Report. We anticipated that this would make fee-related information easier to find and use, and that having it on hand would reduce investors’ uncertainty about fees. The absence of such information might otherwise leave investors’ uncertain about fees because investors would need to look for qualifying fee information at the back of the statement. By making information difficult to find, investors are more likely to mistrust their statement and investment professionals more generally.

Page 2 – Simple BE Statements 1 and 2



Behaviourally Informed CRM2 Statements

Additionally, in parts of the fee report, we reframed “fees” as “costs for services” and/or “the price of investors choosing to do business”.

When describing costs associated with services, we leveraged operational transparency by showcasing the effort made by various professionals to service and

oversee the account. It was anticipated that investors may not know that multiple parties (e.g., fund managers, dealers) are connected with their account, and that identifying these parties would increase the perceived value of services and fees.

Behaviourally Informed CRM2 Statements

4) We have again used a framing effect by juxtaposing the investors' personal rate of return in the past year with their average rate of return since their account's inception. This should help combat narrow framing whereby the investor over-prioritizes an annual rate of return, and deprioritizes longer-term, historical rates of return.

Information about historical returns has been made more salient by presenting this information in the form of a table rather than as line items. It is hypothesized that this will make the information more attention-catching, and promote comprehension.

Lastly, this section has been further simplified through the reduction of text, the incorporation of colour and the use of salient bullets at the top of the section to reiterate key takeaways.

Page 3 – Simple BE Statements 1 and 2

4

Your Total Percentage Return

This past year:

- Your personal rate of return was 5.51%
- Since you opened your account, you've seen an average return of 8.8%.

The chart below shows your personal total percentage return after costs have been deducted and over different time periods (all ending on December 31, 2017). Your personal rate of return is calculated using the "money-weighted" method, which takes into consideration the timing of your deposits and withdrawals.

Past Year	Past 3 Years	Past 5 Years	Past 10 Years	Since your account opened in 2010
5.51%	6.03%	8.42%	N/A	8.8%

The money-weighted method also takes into account the total realized and unrealized capital gains and losses of your investment, plus income from the investment. Your returns reflect the mix of investments and risk level of your account.

Want some tips about how to review your returns?

Some actions you can take to better understand your returns are:

- Develop a concrete goal for this account,
- Determine how much risk you can tolerate,
- Develop a financial plan,
- Understand the costs of advice and services.

Call your advisor for more information ☎

You can work with an advisor to get professional guidance in accomplishing these steps.
Your advisor can also help you determine whether you are on track to meeting your financial goals.

5

6

Email or call to speak with your advisor:
rsloan@financialgroup.ca
555-123-4567

Your fund dealer is:
Financial Group INC.

Behaviourally Informed CRM2 Statements

- 5) We have incorporated a green action box for investors that uses a question to draw investors in – “Want some tips about how to review your returns?” Questions are known to capture attention more effectively than statements (e.g., “Here are some tips about how to review your returns”), so this should prompt investors to read what is contained in this section. Boosting attention is particularly important in this part of the statement as investors may be feeling fatigued and be tempted to skip to the end.

Furthermore, the bulleted list presents investors with actionable, goal-related steps they can take if they are feeling uncertain. This list presents the same information as is presented in the original statement, but links this information to investors’ goals, and identifies a variety of steps both small and large that an investor

can take. Presenting small and large steps capitalizes on a psychological phenomenon known as the foot in the door effect. This effect describes an investor's likelihood to accept a large request by having investors accept a modest request first.

- 6) To increase the perceived value of fees paid for advice, the credibility of the statement itself, and investors’ own sense of agency and control, we incorporated calls-to-action. This lets investors know they can opt to receive professional advice if they so choose. In contrast, the original statement does not include such calls-to-action, so investors may feel disconnected and have no way of getting their questions answered.

Behaviourally Informed CRM2 Statements

- 7) The first page of both comprehensive statements is an interactive and personalized checklist that investors can use to navigate through their statement. This insert promotes progress tracking and whole-unit framing. The checklist also prompts investors to create an implementation plan by identifying concrete steps. By developing an implementation plan, the intention-action gap can be mitigated.

Page 1 – Comprehensive BE statements 1 & 2

7

Hi Investor! This is Your Annual Statement Checklist
Keep it handy as you go through the rest of your statement.

☐ Define what your goal is with this account:

☐ Ensure that you understand the services you receive for the fees you pay (see page 3)


☐ Ensure that you understand what affected the performance of your account over the last year (see pages 1 & 2)

☐ Decide if you are satisfied with how much you contributed to your account this year (see pages 1 & 2)

☐ Get investment advice (see page 4)

☐ Did you talk to an advisor this year?
☐ Do you know how to reach your advisor?
☐ Do you know what you want to ask your advisor?

☐ Identify a small step you can take in the coming month, to support your goal with this account:


Email or call to speak with your advisor:
rsloan@financialgroup.ca
555-123-4567
Your fund dealer is:
Financial Group INC.

Behaviourally Informed CRM2 Statements

- 8) Investors may focus on one part of their statement over others because they expect that one part is particularly relevant, important, or interesting. We have created a whole-unit framing infographic to communicate that together, three components of the statement – transactions, services and fees, and market forces, need attention from investors. By presenting this infographic early in the statement, it frames how the investor should use the statement and divides their attention across all three statement components, instead of one or two.

Page 2 – Comprehensive BE statement 1

Financial Group INC.
650 Richardson Way
Toronto, Ontario
M6J 4N8

Your advisor:
Reese Sloan
555-123-4567
rsloan@financialgroup.ca

1006855600 B
Jan. 2017–Dec. 2017
500 Mills Boulevard
Toronto, Ontario
M6J 3T7

December 31st, 2017

Dear Investor,

This report includes:

- **How your investments have performed** with us in the past year, after costs have been deducted.
- The **fees you paid for services** that we have provided to you.
- What **deposits and withdrawals you made** from your account in the past year.

Birds-Eye View of Your Statement

Transactions:
Your activities as an investor including your deposits and withdrawals.

Services and Fees:
The fees you pay for investment advice and account management.

Market Forces:
These fluctuate from year to year.

8

Behaviourally Informed CRM2 Statements

- 9) We incorporated a concrete goal (\$150,000) and a progress update (you are 35% of the way there) to see if this information would help investors navigate and use the statement. Highlighting that even small amounts of progress have been made motivates action because investors will not want to forfeit past effort (sunk cost fallacy), and will be driven to complete their goal (goal-gradient effect).

Page 2 - Comprehensive BE statement 2

Financial Group INC.
650 Richardson Way
Toronto, Ontario
M6J 4N8

Your advisor:
Reese Sloan
555-123-4567
rsloan@financialgroup.ca

1006855600 B
Jan. 2017-Dec. 2017
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- **How your investments have performed** with us in the past year, after costs have been deducted.
- The **fees you paid for services** that we have provided to you.
- What **deposits and withdrawals you made** from your account in the past year.

Progress Towards Your Investment Goal

The bar below shows your progress towards achieving your personal investment goal. See box below for how your activities affected your progress.

\$52,792.34

You're 35% of the way to your goal of \$150,000

How your activity this year affects your progress:

- ✓ You made 8 deposits
- ✗ You made 4 withdrawals
- ✓ You met with your advisor

Market Activity:

- The market value of your account increased this year

Behaviourally Informed CRM2 Statements

10) This section of the statement provides transparency to investors about how fees compound over time, and directs investors to contact an advisor so they can find out more about the fees they pay, rather than simply looking for lower-fee option(s). This section of the statement validates that fees are consequential, but so too are the actions of the advisor and investor. This concept of whole-unit framing was initially introduced at the beginning of the statement, and reappears here.

Page 3 - Comprehensive BE statement 2

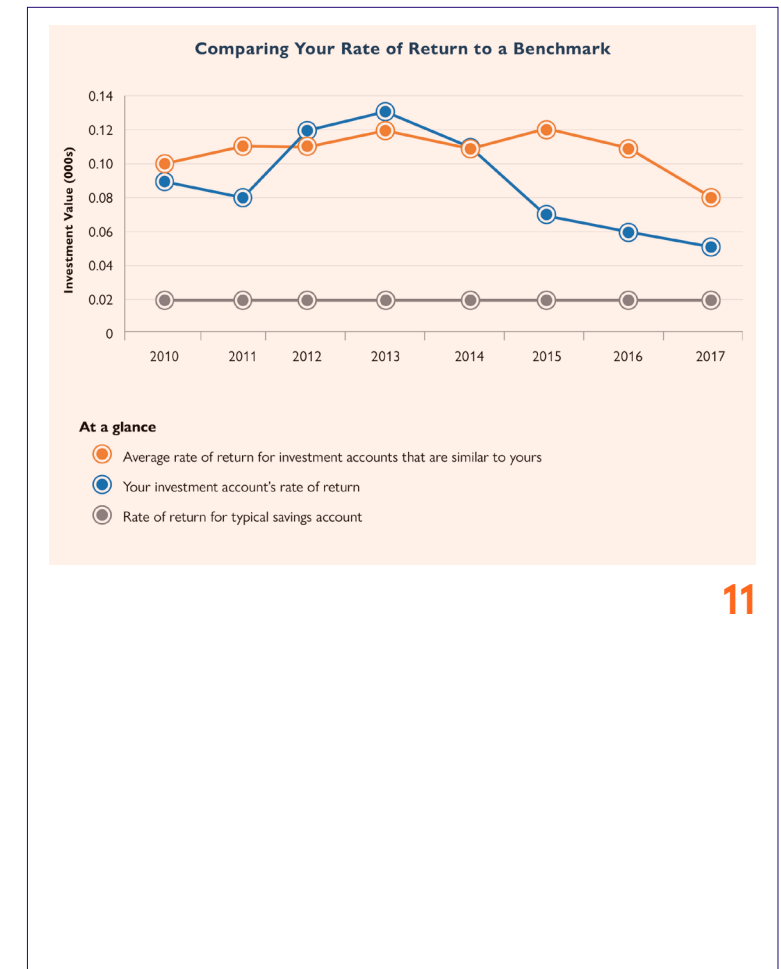


10

Behaviourally Informed CRM2 Statements

- 11) This section of the statement helps to provide investors with context so they can evaluate their annual rate of return by anchoring their rate of return against a benchmark. This may mitigate investors' loss aversion, particularly in cases where the rate of return is perceived to be low. This type of framing also promotes longer-term, future-oriented thinking.

Page 4 - Comprehensive BE statement 2



Experimentation Plan

Experimentation Plan

Purpose of the Experiment

We designed an experiment to gauge the efficacy of the BE statements by comparing them to a current state CRM2 statement (the control condition).

We also assessed whether the impact of the BE statements would differ depending on the type of account (i.e., whether the statement was reporting on an account increase or an account decrease). We hypothesized that account losses may impact awareness, comprehension and investor behaviour differently than account gains. In the account loss condition investors were shown that their account lost money due to market changes. Similarly, in the account gain condition, investors were shown that their account had gained an equivalent amount due to market changes. This resulted in a total of 10 conditions tested.

Who Participated in our Experiment

Inclusion Criteria and Demographics

We tested 2,597 English speaking participants ranging in age from 19 to 92 (average age = 50.9 years old). We sampled individuals from across Canada with the aim of obtaining a representative sample of the country's demographics (for provincial breakdown, see Table 3). Participants were sampled from a range of household income levels (Table 4) and were generally well-educated. Of our total sample, 86% reported having completed either post-secondary education or trade/technical school. Participants reported having relatively high financial knowledge, with 68% reporting that they had a "medium" or "high" amount of financial knowledge related to investing.

Participants were included if they held at least one investment (e.g., mutual fund, stocks, bonds, etc.) and had held their investment account for at least one year. The breakdown of investments owned by participants can be found in Table 5.

Experimentation Plan

Table 3: Breakdown of Sample Population's Residence

Province	Number of Participants	Proportion of the Sample
Ontario	1153	44%
Québec	413	16%
British Columbia	292	11%
Alberta	312	12%
Manitoba	110	4%
Saskatchewan	136	5%
Nova Scotia	89	3%
New Brunswick	48	2%
Newfoundland and Labrador	31	1%
Prince Edward Island	13	0.5%

Table 4: Breakdown of Sample Population's Household Income

Household Income Level	Number of Participants	Proportion of the Sample
Below \$50,000	477	18%
\$50,000 - \$74,999	576	22%
\$75,000 - \$99,999	566	22%
\$100,000 - \$149,999	627	24%
\$150,000 - \$199,999	214	8%
Over \$200,000	129	5%

Experimentation Plan

Table 5: Breakdown of Sample Population's Investment Accounts

Types of Investments Held*	Number of Participants	Proportion of the Sample
Mutual funds	2033	78%
Stocks	1342	52%
Bonds	563	22%
GICs	1168	45%
ETFs	561	22%
Other	222	9%

**Note that the majority of individuals held more than one type of investment*

Measures

The measures that we used to evaluate the effect of all CRM2 statements in our experiment covered key psychological and behavioural aspects including:

- **Attention (anticipated and actual)** – Where do investors intend to spend time when reviewing the statement? How much time do investors actually spend when reviewing the statement?
- **Objective Comprehension** – How well do investors understand and remember basic aspects of their statement such as its structure (Basic Comprehension)? How well do investors understand the more complex details of the statement (Detailed Comprehension)?

Experimentation Plan

- **Subjective Comprehension** – How well do investors think they understand the statement?
- **Goal-Based Investor Behaviours** – To what degree do investors intend to behave in a way that will support the goal outlined in the scenario, such as intending to contribute to their account in the year to come, or to withdraw less, or to seek and take professional investment advice?

We performed statistical analyses to determine which statement(s) perform best/worst given the above measures.

See Appendix B for a comprehensive list of measures used in the experiment.

Experimentation Plan

Procedure

Participants were directed to a website where they received instructions for the experiment and confirmed their interest and intent to participate.

Our experiment used a Randomized Controlled Trial (RCT) design meaning that every participant was randomly assigned to view one statement in our experiment. The current state CRM2 statement served as our control condition.

Participants were given the following instructions:

In this survey, you will be shown an annual statement for an investment account for the year 2017. Please imagine that this statement belongs to you. Specifically, imagine that this statement reflects the standing of investments you own and reflects actions you have taken (for example, deposits and withdrawals you made in 2017). Lastly, imagine that your financial goal for this particular account is to reach \$150,000, and that you would like to achieve that goal in roughly 5-10 years.

Experimentation Results

Experimentation Results

For a subset of the following results, investors answered questions by indicating a rating on a 7-point scale. In these instances, a rating of 1 was the lowest possible value, while a rating of 7 was the highest possible value.

Thus, across all 7-point scales, a rating of 4 was deemed Neutral. In these instances, when 4 appears on the y-axis of the relevant graphs, we indicate this Neutral position with a dashed line.

Experimentation Results

Attention

Investors' Intentions

We asked investors which portions of the statement they felt was most important to spend time on:

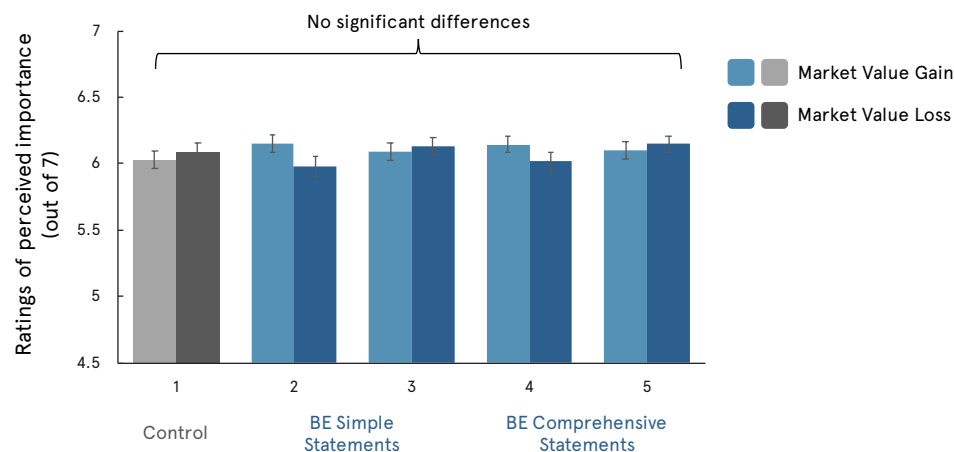
- 1) Their personal rate of return
- 2) Their transactions
- 3) The fees they paid

Investors rated the importance of viewing each of these items on a scale from 1 to 7, where 1 was very unimportant and 7 was very important.

Where Did Investors Plan to Spend Their Time?

Investors who viewed the BE statements did not intend to spend their attention any differently than investors who viewed the current state CRM2 statement (see Figure 3 below). All statements that we tested resulted in participants intending to allocate roughly equal amounts of attention to their transactions, returns, and their fees, on average.

Figure 3: Composite Scores of Intentions to Allocate Attention



Experimentation Results

Actual Time Spent by Investors

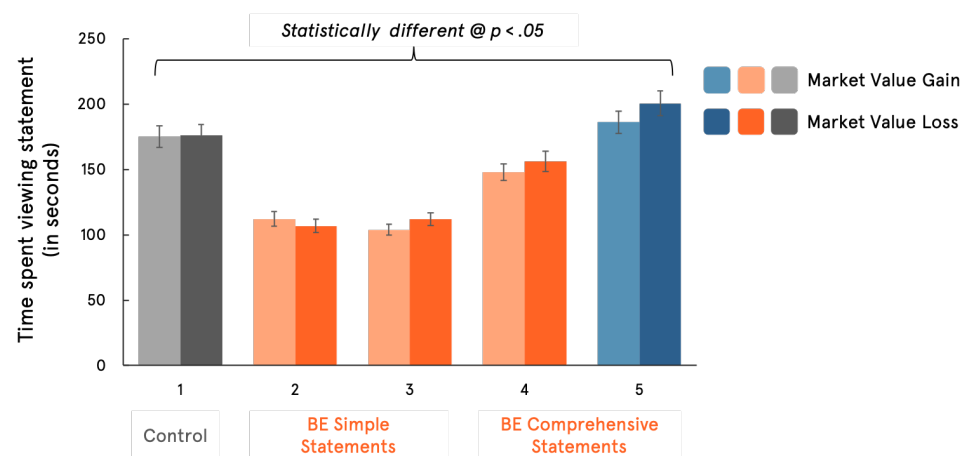
Next, we measured attention objectively by examining how much time investors spent viewing their statements. Here, we reasoned that there should be a relationship between the length of the statement and the time spent viewing, whereby longer statements likely need more time for review. However, we aimed to explicitly test this hypothesis by examining whether longer statements necessarily needed more time to be reviewed, particularly if they were simplified.

How Much Time did Investors Spend Reviewing their Statement?

As predicted, we found a strong relationship between the length of the statement and the amount of time needed for review (see Figure 4 below). Both the simple BE statements and comprehensive BE statement 1 resulted in significantly less viewing time relative to the current state CRM2 statement.

This finding is not surprising, as the Simple BE statements (4 pages) were shorter than the current state CRM2 statement (7 pages), BE Comprehensive 1 was 6 pages, and BE Comprehensive 2 was 8 pages.

Figure 4: Length of Time Spent Viewing Statements



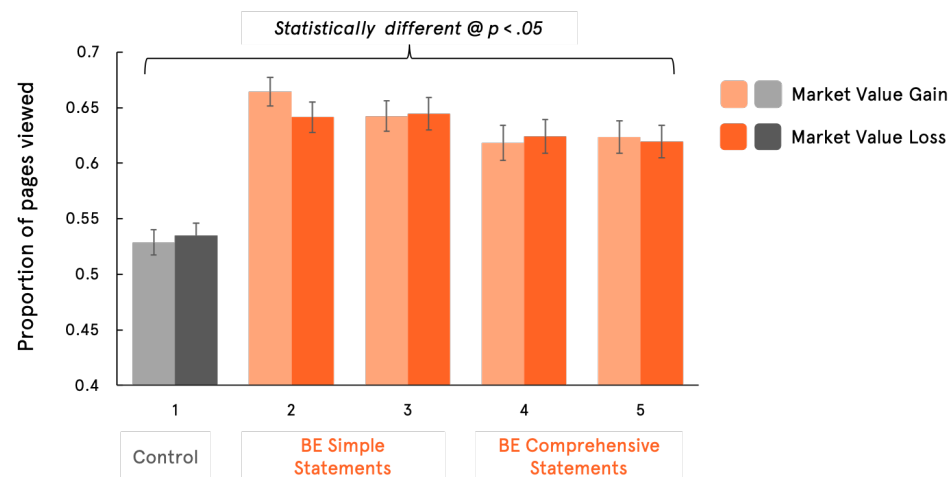
Experimentation Results

Proportion of Statement Pages Viewed by Investors

Our final measure of objective attention was to determine the proportion of the statement investors looked at while they could freely view the statement. Here, we reasoned that investors would be more likely to view all the pages of the statements which were shorter (i.e., Simple BE statements) and less likely to view all the pages for statements which were longer (the current state CRM2 statement and the comprehensive BE statements).

Interestingly, we found that in all cases our BE statements were viewed more completely than the current state CRM2 control statement. This was true even for the comprehensive BE statement 2, which was the only statement that contained more pages than the control statement (comprehensive BE 2 contained 8 pages while the control statement contained 7 pages). This means that investors were more willing to attend to the BE statements, even when they were lengthier.

Figure 5: Proportion of Statement Pages Viewed



Experimentation Results

Objective Comprehension

One of the main goals of the BE statements was to increase objective comprehension of the main elements of the statements.

We aimed to assess two different types of comprehension:

- **Basic Comprehension:** How well do investors understand and remember basic aspects of their statement such as the overarching statement contents?
- **Detailed Comprehension:** How well do investors understand the more complex details of the statement?

Experimentation Results

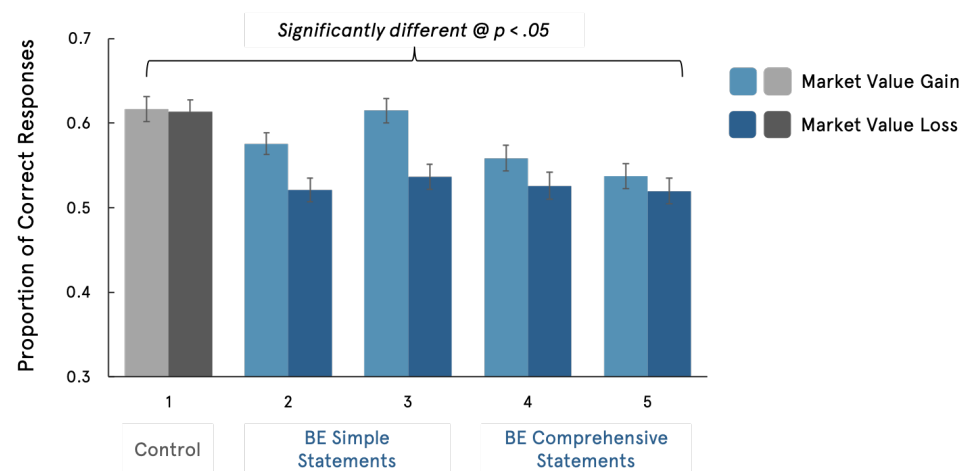
Basic Comprehension

To assess basic comprehension, investors viewed the statements and were given as much time as they needed to flip back and forth through the pages. After investors finished viewing the statements, the statements were removed from the screen. Investors were asked basic questions, such as their rate of return for the current year and the range of total fees they paid.

Investors who viewed the BE statements were worse than investors who viewed the current state CRM2 statement when it came answering questions that measured basic comprehension and memory of the statement.

We suspect that investors in our experiment were familiar with the general layout of CRM2 statements. This familiarity helped investors recall the statements key elements. Investors viewing the BE statements found these statements more novel and less predictably structured. This likely explains why investors had more difficulty recalling basic aspects of the BE statements.

Figure 6: Composite Scores of Basic Comprehension & Memory



Experimentation Results

Detailed Comprehension

Detailed comprehension differed from basic comprehension in several ways.

Firstly, the questions measuring detailed comprehension were much more targeted. Investors were asked to find specific definitions of various fee types and how their rate of return was calculated. Secondly, because these questions were more difficult, we allowed participants to view the statement while they answered the questions to search for the correct answers. Thus, the answers to these questions were not based on memory.

Finally, these questions required investors to truly understand the contents of the statement. The questions did not simply assess their ability to find and remember information, but rather, to interpret the information present in the statement.

For example, the statements did not explicitly state that investors paid for advice. However, there were trailing commissions that represented fees for advice. Thus, to accurately answer the question "Did you pay for advice?" investors would need to understand what the fees they paid for represent, and draw the logical conclusion that because they paid commissions for advice, that means they did indeed pay for advice, even if it was paid for through the fund company.

We asked participants seven targeted questions about the statements' contents and assessed their accuracy for each question. We then took the average accuracy across all seven questions as a composite score for detailed comprehension. We subjected the composite scores to an ANOVA to assess differences between conditions.

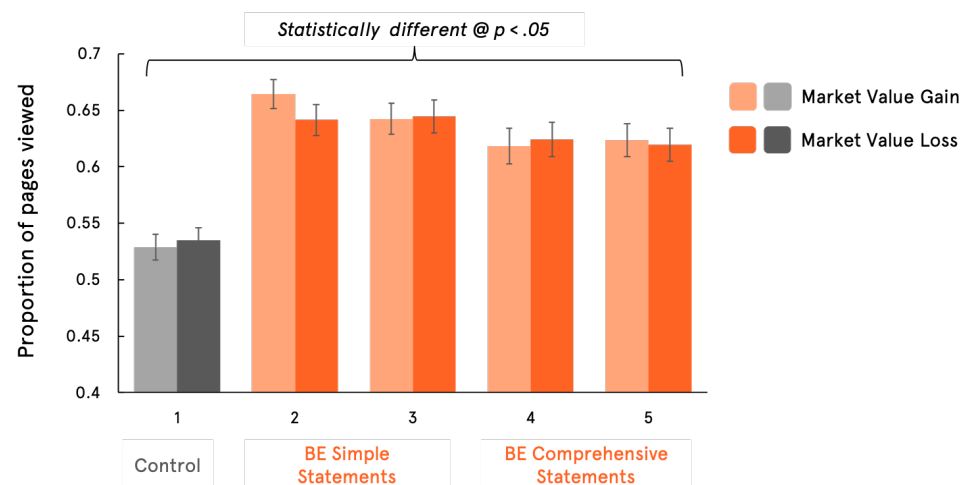
Experimentation Results

How Well Did Investors Understand More Complex Elements of their Statement?

Investors who viewed both the simple and comprehensive BE statements showed significantly greater detailed comprehension than investors viewing the current state CRM2 statement (see Figure 7).

This suggests that investors' detailed comprehension of complex statement components was supported by a combination of simplified text, chunking group information thematically, and the incorporation of traffic-light labelling to highlight goal-aligned investor behaviours.

Figure 7: Composite Scores of Detailed Comprehension



Experimentation Results

Subjective Comprehension

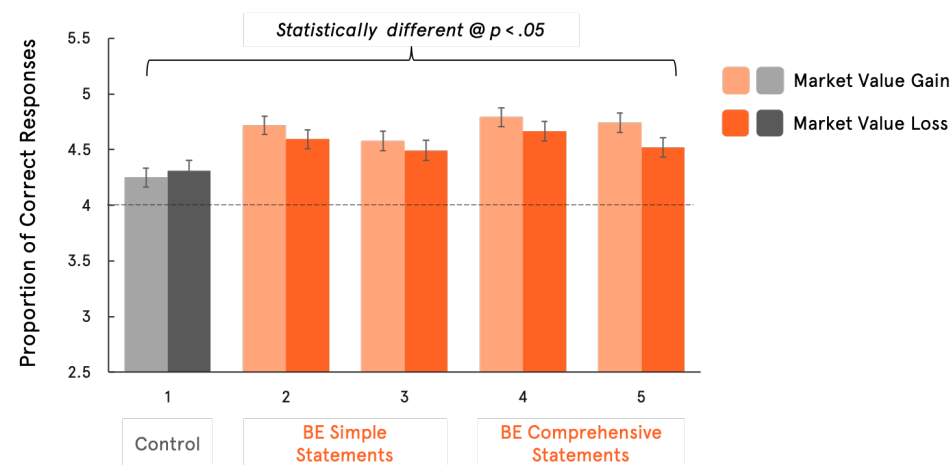
After investors finished viewing the statements, we asked investors how well they thought they understood various aspects of the statements, including their transactions, performance, and fees. We also asked investors to rate how easy they felt the statement was to understand as a whole.

Investors rated ease of understanding on a scale from 1 to 7, where 1 was difficult to understand, and 7 was easy to understand. We took the average of these ratings to produce a composite score of Subjective Comprehension for each investor.

We found that all four BE Statements resulted in significantly higher Subjective Comprehension relative to the Current-State CRM2 statement (see Figure 8).

This suggests that the BE tactics made the statements less effortful to process, and helped investors find the information they were looking for more readily.

Figure 8: Composite Scores of Subjective Comprehension



Experimentation Results

Behavioural Intentions in Support of a Goal

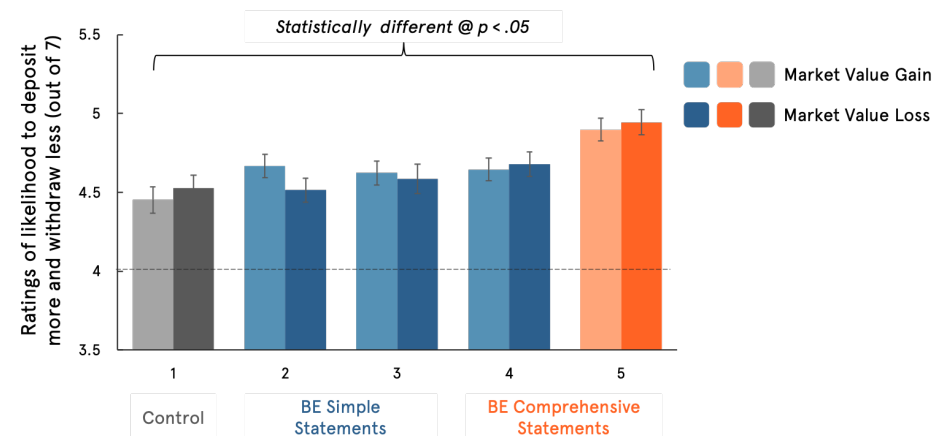
After investors were finished viewing the statements, we asked them a series of questions related to their intentions to take specific actions in the future. Specifically, we asked them whether they would be willing to support their goal of account growth by making more deposits and fewer withdrawals in the future.

Investors who viewed the comprehensive BE statement containing the goal-tracker were more likely to say they would contribute more and withdraw less from their account in the year to come (see Figure 9).

This effect was not present for investors viewing any other statement (BE- or current state), which suggests that the behavioural intervention of incorporating a concrete goal and providing feedback about progress towards that goal motivated investors' intention to engage in more goal-aligned behaviours in the future.

This effect is particularly notable because the statement containing the goal-tracker intervention also contained the pricing transparency diagram showing investors how fees can compound over time and lower returns. Investors had the strongest intention to invest more in this condition suggesting that goal-framing promotes long-term thinking and mitigates investors' temptation to adopt quick solutions such as switching to a lower-fee fund that is suboptimal given their goals.

Figure 9: Composite Scores of Behavioural Intentions



Experimentation Results

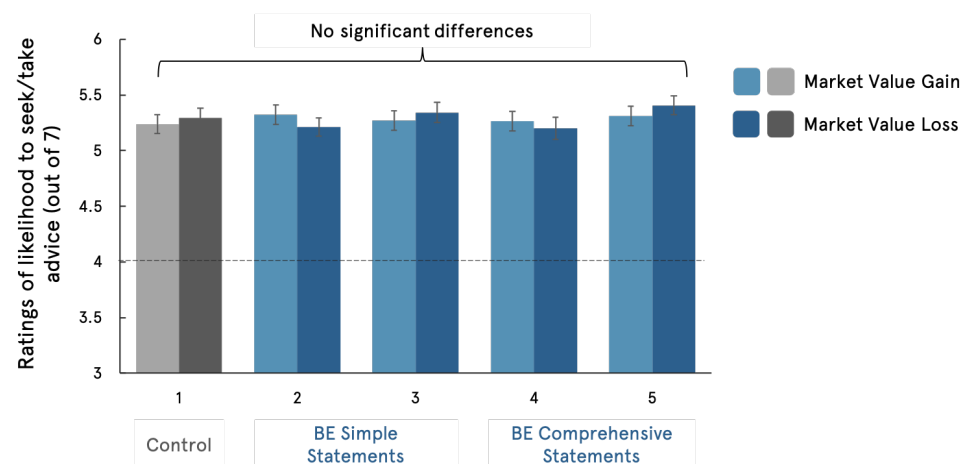
Intentions to Seek and Take Advice

Our final objective for CRM2 statements was to assess the behavioural determinants of trust. In particular, we reasoned that if investors trust the investment industry and investment professionals, they will subsequently be more willing to seek and take advice from professionals. Thus, we assessed whether there were differences between the statements in terms of investors' willingness to both seek and to take advice from professionals.

We assessed intentions to take advice by asking investors to rate on a scale from 1 to 7 how likely they would be to both seek advice, and to take advice. We then took the ratings and converted them to a proportion out of 7, and took the average of these two scores.

Investors who viewed the BE statements (simple and comprehensive) were not different from investors who viewed the current state CRM2 statements in terms of their intentions to seek and take advice from professionals (see Figure 10 below).

Figure 10: Composite Scores of Intention to Seek & Take Advice



Experimentation Results

It is notable that the comprehensive BE statement containing the pricing transparency graphic did not lessen investors' intentions to seek and take advice. Although including additional information about fees might have been hypothesized to make investors frustrated about fees and associated services and

advice, it appears that other behavioural tactics in this statement such as the goal-tracker, and the benchmarking of returns in investment accounts as compared to in non-investment vehicles, mitigated this effect and maintained investors' intention to make use of advice.

Experimentation Results

Willingness to Pay for Advice

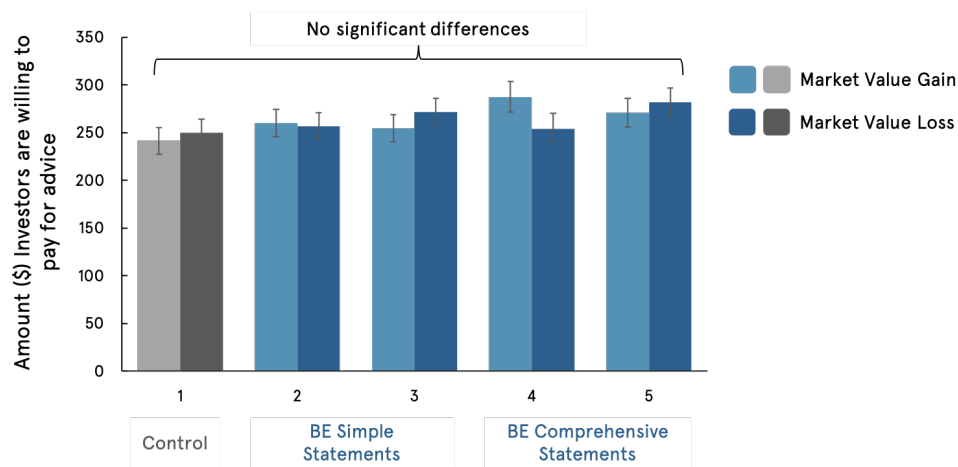
We asked investors how much they would be willing to pay for advice next year. We reasoned that the more investors are willing to pay for advice, the more trust they feel towards advisors and investment professionals, and the more value they perceive in the advice they might receive.

Investors who viewed the BE statements were willing to pay the same amount for advice as those who viewed the current-state CRM2 statement (see Figure 11). Across all of the statements, investors were willing to pay an average of \$262.89 per month.

The findings in Figure 10 suggest that investors place value on advice and that displaying information in a more clear, simplified manner, as was done in the BE statements, did not increase nor decrease how much investors would be willing to pay for this service.

Additionally, providing more pricing transparency in the comprehensive BE statement 2 did not prompt investors to want to pay less.

Figure 11: Amount Investors Were Willing to Pay for Advice



Experimentation Results

Intention to Switch to a Lower-Fee Fund

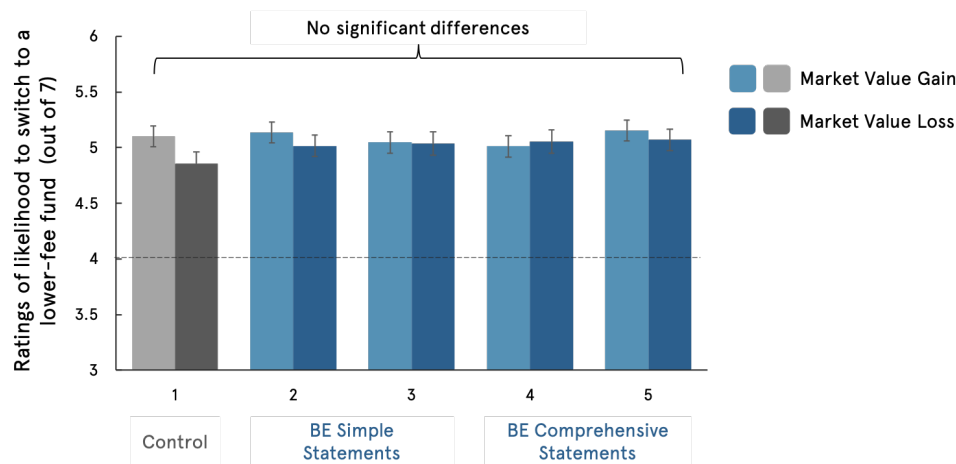
After reviewing their statement, we asked investors the degree to which they would want to switch to a lower-fee fund.

We hypothesized that the BE statements would reduce investors’ intention to switch because the goal and whole unit framing incorporated into these statements combats narrow framing and price-sensitivity and helps investors view fees as connected to service and value.

Investors who viewed the BE statements were no different than those who viewed the current state CRM2 statement in their intention to switch to a lower-fee fund (see Figure 12).

This is particularly noteworthy for the comprehensive BE statement 2, which showed in a visually salient way how fees can impact returns over time. This result shows that even when fees are emphasized and their impact is explained, this does not always lead to skepticism and intent to switch funds on the part of the investor.

Figure 12: Likelihood to Switch to a Lower-fee Fund



Experimentation Results

Conclusion

In sum, we found that simplifying the CRM2 statements and including basic traffic-light labelling boosted investors' accuracy when answering questions that assess detailed comprehension (including questions about their rate of return, the definition of specific fee types, and whether advice was paid for). These tactics also increased the proportion of the statement that investors viewed, making it more likely that they viewed the statements completely, and helped investors feel more confident about their understanding of the statement.

Another key finding is that the comprehensive BE statement containing the goal-tracker led investors to report engaging in goal-aligned behaviours such as contributing more and withdrawing less from their account in the year to come. This result is particularly notable because the statement containing the goal-tracker intervention also contained the pricing transparency diagram showing investors how

fees can compound over time and lower returns. The risk that pricing transparency might lead investors to engage in short-term and fee-focused thinking appears to have been successfully offset by the other behavioural tactics in the statement. In fact, the investors who saw these statements were no more likely to look for lower-fee funds than investors who had not viewed the pricing transparency diagram. They were also equally willing to seek and take advice as investors not afforded more information about fees.

Interestingly, we found that across a variety of measures, the current state CRM2 Control statements performed well. Investors who viewed these statements intended to view all aspects of the statement (i.e., Intended Attention measure), including their transactions, performance, and fees.

Experimentation Results

Investors also flipped through 92% of the pages. Even though the BE statements performed better with regard to percent of pages viewed, investors still viewed majority of the pages in the Control statements.

We found that basic comprehension was significantly higher for the Control statements than for our BE Statements. This was a surprising outcome, suggesting that the Control statements contain content that investors are familiar with and are currently formatted in a way that investors can easily navigate. That said, we anticipate that over time as investors are exposed to a simplified format, they will develop the same level of familiarity that they currently have for the current state format.

Lastly, investors' intention to seek and take financial advice were well above neutral for those viewing the Control statement. This suggests that the current state CRM2 statement effectively conveys the importance of advice and encourages investors to seek it.

Overall, by making annual statements easier to understand using new tactics we were able to increase the likelihood investors engage in goal-driven financial behaviours.

Recommendations & Next Steps

Recommendations and Next Steps

This research demonstrates how BE principles can be used to improve investors' annual statements. We have determined that even relatively minor changes to language and graphics have a significant and positive impact on investors' detailed comprehension of their statements, and their intentions to take action in service of achieving their goals.

Based on the findings of this report, we recommend that dealer firms review the CRM2 statements they issue to investors and look for opportunities to apply behavioural tactics to simplify the content.

This would include:

- Reducing the amount of text found in the statement
- Summarizing key pieces of information as salient bullet points presented near the top-left hand corner of the page
- Applying traffic light labelling to highlight in green to investors positive actions that should be continued (e.g., making contributions) and sub-optimal actions that should be discouraged (e.g., deposits).
- Chunking to improve comprehension of information about fees, performance, and transactions.

Recommendations and Next Steps

An additional tactic that dealer firms might consider implementing is goal-framing combined with progress tracking. This took the form of the goal-tracker intervention in our comprehensive BE statement, where investors were reminded of their account goal and shown an image depicting how much money they had earned, and how much further they had to go.

Goal-framing and progress tracking are particularly useful for helping investors plan for the long-term, and identify specific actions they would like to make in the future to support those goals. In the case of our experiment, this included intending to contribute more and withdraw less in the year to come.

Goal-framing and progress tracking were also found to help offset elements of the statement that might trigger investors to become fee-sensitive and cue investors not to ignore the connection between value and fees.

In these cases, goal-framing and progress tracking maintained investors' intentions to seek and follow advice, and promoted informed decision making that can be facilitated by advisors and investment professionals

Recommendations and Next Steps

When dealer firms are considering whether and how to potentially incorporate goal-framing and progress-tracking into CRM2 statements, we would recommend keeping in mind that these concepts can be brought to life in various ways. What is important is for investors to be nudged closer to 1) articulating a clear goal for their account, and 2) receiving feedback about where they are related to that goal. If it is not feasible to provide feedback about the amount currently held in the account relative to an end goal, then dealer firms could nudge investors to define a particular set of behaviours that they would like to achieve on a yearly basis and provide feedback about their success achieving these shorter-term goals.

Finally, dealer firms may consider how our research applies to the industry's consideration of full-cost disclosure. While our first experiment did not test a statement containing full-cost disclosure, we did incorporate a fee benchmarking diagram that made fees salient to investors. We learned that the combination of goal-framing and progress tracking combated investors' tendency to focus solely on fees. In the context of CRM3, where fees could become even more salient, we anticipate that goal-framing and progress tracking will be particularly important for nudging investors to think about fees in connection with personal actions, and to act in the service of long-term goals.

References

References

- [1] Norman, D. A. (1969). Memory and attention: An introduction to human information processing (2nd ed). Oxford, England: John Wiley & Sons.
- [2] Yantis, S. (2000). Goal-directed and stimulus-driven determinants of attentional control. In S. Monsell & J. Driver (Eds.), *Attention and performance XVIII: Control of cognitive processes* (pp. 71-208). Cambridge, MA: MIT Press.
- [3] Cheema, A., & Bagchi, R. (2011). The effect of goal visualization on goal pursuit: Implications for consumers and managers. *Journal of Marketing*, 75(2), 109-123.
- [4] Barberis, N., Huang, M., & Thaler, R. H. (2006). Individual preferences, monetary gambles, and stock market participation: A case for narrow framing. *American Economic Review*, 96(4), 1069-1090.
- [5] Tversky, A. (1972). Elimination by aspects: A theory of choice. *Psychological Review*, 79(4), 281.
- [6] Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2(2), 175.
- [7] Park, J., Konana, P., Gu, B., Kumar, A., & Raghunathan, R. (2010). Confirmation bias, overconfidence, and investment performance: Evidence from stock message boards. *McCombs Research Paper Series No. IROM-07-10*.
- [8] Pieters, R., & Wedel, M. (2004). Attention capture and transfer in advertising: Brand, pictorial, and text-size effects. *Journal of Marketing*, 68(2), 36-50.
- [9] Belopolsky, A. V., Zwaan, L., Theeuwes, J., & Kramer, A. F. (2007). The size of an attentional window modulates attentional capture by color singletons. *Psychonomic Bulletin & Review*, 14(5), 934-938.
- [10] Engmann, S., Bernard, M., Sieren, T., Onat, S., König, P., & Einhäuser, W. (2009). Saliency on a natural scene background: Effects of color and luminance contrast add linearly. *Attention, Perception, & Psychophysics*, 71(6), 1337-1352.

References

- [11]** Arons, B. (1992). A review of the cocktail party effect. *Journal of the American Voice Society*, 12(7), 35–50.
- [12]** Bucher, H. J., & Schumacher, P. (2006). The relevance of attention for selecting news content. An eye-tracking study on attention patterns in the reception of print and online media. *Communications*, 31(3), 347–368.
- [13]** Edmunds, A., & Morris, A. (2000). The problem of information overload in business organisations: a review of the literature. *International Journal of Information Management*, 20(1), 17–28.
- [14]** Persson, J., Welsh, K. M., Jonides, J., & Reuter-Lorenz, P. A. (2007). Cognitive fatigue of executive processes: Interaction between interference resolution tasks. *Neuropsychologia*, 45(7), 1571–1579.
- [15]** Le, A., & Niemeier, M. (2013). A right hemisphere dominance for bimanual grasps. *Experimental Brain Research*, 224(2), 263–273.
- [16]** Downs, J. S., Loewenstein, G., & Wisdom, J. (2009). Strategies for promoting healthier food choices. *American Economic Review*, 99(2), 159–64.
- [17]** Thorndike, A. N., Sonnenberg, L., Riis, J., Barraclough, S., & Levy, D. E. (2012). A 2-phase labelling and choice architecture intervention to improve healthy food and beverage choices. *American Journal of Public Health*, 102(3), 527–533.
- [18]** Parida, S. (2017). The impact of reporting of dollar amount of mutual fund fees on fee levels. Working Paper. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3046044
- [19]** FCA Occasional Paper No. 32. (2018). Now you see it: Drawing attention to charges in the asset management industry.

References

[20] Hershey, D. A., & Walsh, D. A. (2000). Knowledge versus experience in financial problem solving performance. *Current Psychology*, 19(4), 261–291.

[21] Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent model. *The Quarterly Journal of Economics*, 106(4), 1039–1061.

[22] Heath, T. B., Chatterjee, S., & France, K. R. (1995). Mental accounting and changes in price: The frame dependence of reference dependence. *Journal of Consumer Research*, 22(1), 90–97.

[23] Shepperd, J. A., Carroll, P., Grace, J., & Terry, M. (2002). Exploring the causes of comparative optimism. *Psychologica Belgica*, 42, 65–98.

[24] Weinstein, N. D., & Klein, W. M. (1996). Unrealistic optimism: Present and future. *Journal of Social and Clinical Psychology*, 15(1), 1–8.

[25] Frederick, S., Loewenstein, G., & O'donoghue, T. (2002). Time discounting and time preference: A critical review. *Journal of Economic Literature*, 40(2), 351–401.

[26] Hershfield, H. E., Goldstein, D. G., Sharpe, W. F., Fox, J., Yeykelis, L., Carstensen, L. L., & Bailenson, J. N. (2011). Increasing saving behavior through age-progressed renderings of the future self. *Journal of Marketing Research*, 48(SPL), S23–S37.

[27] Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *The Journal of Economic Perspectives*, 5(1), 193–206

[28] Thaler, R. H., Tversky, A., Kahneman, D., & Schwartz, A. (1997). The effect of myopia and loss aversion on risk taking: An experimental test. *The Quarterly Journal of Economics*, 112(2), 647–661.

References

- [29] Soman, D. (2014). An overview of the behavioural sciences. Rotman School of Management, University of Toronto.
- [30] BEworks' Risk Profiling White Paper 2017.
- [31] Kool, W., McGuire, J. T., Rosen, Z. B., & Botvinick, M. M. (2010). Decision making and the avoidance of cognitive demand. *Journal of Experimental Psychology: General*, 139(4), 665.
- [32] Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing?. *Journal of Personality and Social Psychology*, 79(6), 995.
- [33] Broniarczyk, S. M., & Griffin, J. G. (2014). Decision difficulty in the age of consumer empowerment. *Journal of Consumer Psychology*, 24(4), 608–625.
- [34] Sethi-Iyengar, S., Huberman, G., & Jiang, W. (2004). How much choice is too much? Contributions to 401 (k) retirement plans. Pension design and structure: New lessons from behavioral finance, 83, 84–87.
- [35] Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology*, 79(6), 995
- [36] Malhotra, N. K. (1982). Information load and consumer decision making. *Journal of Consumer Research*, 8(4), 419–430.
- [37] Madrian, B.C. and Shea, D.F. (2001), Preaching to the Converted and Converting Those Taught: Financial Education in the Workplace, University of Chicago Working Paper.
- [38] Fernandez, R., & Rodrik, D. (1991). Resistance to reform: Status quo bias in the presence of individual-specific uncertainty. *The American Economic Review*, 1146–1155.
- [39] Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472.

References

[40] Lewis, D. R. (2018). The perils of overconfidence: Why many consumers fail to seek advice when they really should. *Journal of Financial Services Marketing*, 23(2), 104–111.

[41] Bastian, H. (2008). Health literacy and patient information: developing the methodology for a national evidence-based health website. *Patient Education and Counseling*, 73(3), 551–556.

[42] FCA, Occasional Paper No. 2, Encouraging consumers to claim redress: Evidence from a field trial (April 2013)

[43] Baddeley, A. (1994). The magical number seven: Still magic after all these years? *Psychological Review*, 101(2): 353–356.

[44] Baddeley, A. D., Hitch, G. J., & Allen, R. J. (2009). Working memory and binding in sentence recall. *Journal of Memory and Language*, 61(3), 438–456.

[45] O’Shea, L.J. & Sindelar, P.T. (1968). The effects of segmenting written discourse on the reading comprehension of low- and high-performance readers. *Reading Research Quarterly*, 18(4), 458–465.

[46] Casteel, C.A. (1990). Effects of chunked text-material on reading comprehension of high and low ability. *ProQuest*, 27(4): 269.

[47] Farley, F.H., & Grant, A.P. (1976). Arousal and cognition: Memory for color versus black and white multimedia presentation. *The Journal of Psychology*, 94(1), 147–150.

[48] Smerencnik, C.M., Mesters, I., Kessels, L.T., Ruiter, R.A., De Vries, N.K., & De Vries, H. (2010). Understanding the positive effects of graphic risk information on comprehension: measuring attention directed to written, tabular and graphical risk information. *Risk Analysis*, 30(9): 1387–1398.

References

[49] Slovic, P. (1995). The construction of preference. *American Psychologist*, 50(5), 364.

[50] Hibbard J. H., P. Slovic, E. M. Peters, and M. Finucane. 2002. Strategies for reporting health plan performance information to consumers: Evidence from controlled studies. *Health Services Research* 37(2): 291–313.

[51] Barber, B. M., & Odean, T. (2002). Online investors: do the slow die first?. *The Review of Financial Studies*, 15(2), 455–488.

[52] Goldfarb, A., McDevitt, R. C., Samila, S., & Silverman, B. S. (2015). The effect of social interaction on economic transactions: Evidence from changes in two retail formats. *Management Science*, 61(12), 2963–2981.

[53] An, Kim & Soman, “Financial Behaviour Online: It’s Different”, (2016), p. 6.

[54] Benartzi, S. (2015). The smarter screen: Surprising ways to influence and improve online behavior. New York: Portfolio/Penguin.

[55] Bettman, J. R., & Jacoby, J. (1976). Patterns of processing in consumer information acquisition. *Advances in Consumer Research*, 3, 315–320.

[54] Yeung, C. W. M., & Soman, D. (2005). Attribute evaluability and the range effect. *Journal of Consumer Research*, 32(3), 363–369.

[55] Barr, N., Pennycook, G., Stolz, J. A., & Fugelsang, J. A. (2015). The brain in your pocket: Evidence that Smartphones are used to supplant thinking. *Computers in Human Behavior*, 48, 473–480.

[56] Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & Behavior*, 7(3), 321–326.

References

[57] Wolfinbarger, M. and Gilly, M., "Shopping Online for Freedom, Control, and Fun," *California Management Review* Vol. 43, No. 2: 34–56, 2001.

[58] Morrin, M., Broniarczyk, S., Inman, J. & Broussard, J. (2008). Saving for retirement: the effects of fund assortment size and investor knowledge on asset allocation strategies. *Journal of Consumer Affairs*, 42(2): 206–222.

[59] Johnson, J., & Tellis, G. J. (2005). Blowing bubbles: Heuristics and biases in the run-up of stock prices. *Journal of the Academy of Marketing Science*, 33(4), 486–503.

[60] Lusardi, A., & Mitchell, O. S. (2009). How ordinary consumers make complex economic decisions: Financial literacy and retirement readiness (No. w15350). National Bureau of Economic Research.

[61] Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. (2006). Early decisions: A regulatory framework (No. w11920). National Bureau of Economic Research.

[62] Hastings JS, Tejeda-Ashton L. 2008. Financial literacy, information, and demand elasticity: survey and experimental evidence from Mexico. NBER Work. Pap. 14538

[63] Choi J, Laibson D, Madrian B. 2010. Why does the law of one price fail? An experiment on index mutual funds. *Rev. Financ. Stud.* 23:1405–32

[64] Gunaratne, J., Burke, J., & Nov, O. (2017, February). Empowering Investors with Social Annotation When Saving for Retirement. In CSCW (pp. 1066–1081).

References

[65] Mohan, B., Buell, R., & John, L. (2016). Lifting the veil: the benefits of cost transparency. Working paper, No. 15-017.

[66] Gil-Bazo, J., & Ruiz-Verdú, P. (2007). On the Relationship between Price and Quality in the US Mutual Fund Industry: Evidence from the 1992–2003 Period. In *Performance of Mutual Funds* (pp. 108–126). Palgrave Macmillan, London.

[67] Blanchett, David M., and Paul Kaplan. 2013. "Alpha, Beta, and Now... Gamma." *The Journal of Retirement*, vol. 1, no. 2: 29–45.

Appendix A: Summary of Psychological Biases Impacting Disclosure

Appendix A: Summary of Psychological Biases Impacting Disclosure

Barriers

Lack of Salience

We often do not attend to information that does not stand out from the background

What's happening? Investors may have a hard time finding the most pertinent parts of the report if that information is not front and centre.

Lack of Personalization

We tend to pay less attention to information that is generic and impersonal.

What's happening? Financial disclosures that mix both personal and impersonal information reduce the relevance to the investor and decrease the likelihood the investor will attend to the information presented.

Optimism Bias

We tend to believe that our chances of experiencing positive events is higher than average, and that our chances of experiencing negative events is lower than average.

What's happening? Because investors naturally have high expectations of positive outcomes, they may have unrealistically high expectations about the performance of their funds. This results in disappointment when gains are smaller than expected, or worse, when losses occur. Additionally, investors may feel overconfident about their own abilities and fail to seek advice from an advisor.

Appendix A: Summary of Psychological Biases Impacting Disclosure

Present Bias

We often prefer immediate rewards at the expense of our long-term intentions.

What's happening? Investment is typically a long-term game, however since the market tends to be volatile, short-term changes reported in annual disclosures may increase the likelihood that investors will act impulsively, choosing to switch funds or sell at inopportune times.

Status Quo Bias

We exhibit preferences for sticking with the default, or the way we currently do things.

What's happening? Investors exposed to information that shows they may not attain their goals, may choose to maintain their behaviour, even though a new strategy might be helpful. This is due to inertia and hassles associated with developing a new habit.

Risk Aversion

People tend to avoid risky situations that carry potential for high gains/losses, and favour situations with smaller gains/losses.

What's happening? Investors' risk preference is likely to be lower than their risk capacity.

Information Overload

When there is too much information, people tend to experience decision paralysis or rely on heuristics when making decisions.

What's happening? Since current disclosure is lengthy and filled with technical jargon, many investors may not read their financial disclosure statements, and may be hesitant to take action – such as asking their advisor a question or increasing their rate of contribution.

Appendix A: Summary of Psychological Biases Impacting Disclosure

Intention-Action Gap

There is a gap between what people say they will do and what they actually end up doing

What's happening? People often have intentions to follow through on an action, but barriers and hassles emerge that impede action. As a result, investors who intend to deposit, withdraw, or switch funds will be less likely to complete the action without very strong impetus.

Innumeracy;

People tend to have difficulties applying simple rules of arithmetic, like adding and dividing, or understanding principles like compound interest.

What's happening? People's inability to conduct basic mental statistics adds to their cognitive load and increases the likelihood that information overload will occur.

Low Perceived Value

The value from investments cannot be immediately observed by the investor after purchase, making it difficult to assess the utility of the investment

What's happening? Many investment products and services ultimate worth may not be known for several years after purchase, making investors misunderstand the value of their investment and act impulsively in downturn markets.

Leftward Bias

People attend more to information that is presented on the left-side of the page

What's happening? Most people's brains process information in the left visual field earlier in time and for longer. Thus, important information should be placed on the left-, upper-hand corner of a page in order to stand out.

Appendix B: Full List of Survey Questions

Appendix B: Full List of Survey Questions

Demographics

1) Are you a Canadian citizen

- o Yes
- o No

2) How old are you?

3) Do you identify as male or female?

- o Male
- o Female

4) What province do you currently live in?

5) What is your yearly household income?

- o 0-\$49,999
- o \$50,000 - \$74,999
- o \$75,000 - \$99,999
- o \$100,000 - \$149,999
- o \$150,000 - 199,999
- o over \$200,000

Appendix B: Full List of Survey Questions

- 6) Relative to your peers, how knowledgeable are you about investing? (As a reference, consider whether you understand the difference between various investment vehicles, or between equity versus fixed income).
- o I don't know about investing
 - o I know a little about investing
 - o I know a medium amount about investing
 - o I know a lot about investing, but I do not work in financial services
 - o I know a lot about investing, and I work in financial services
- 7) Do you currently have one or more investment accounts? (e.g. mutual funds, stocks, bonds, ETFs, GICs, etc.)
- o Yes
 - o No
- 8) Please select all of the investment accounts you currently own
- o Mutual funds
 - o Stocks
 - o Bonds
 - o Exchange-traded funds (ETFs)
 - o GICs
 - o Other (please specify) _____
- 9) How long have you had your investment account(s) for?
- o Less than 1 year
 - o Between 1 and 3 years
 - o Between 4 and 6 years
 - o 7 years or more

Appendix B: Full List of Survey Questions

10) What's the highest level of education you've completed?

- ☐ Elementary school
- ☐ High school
- ☐ Trade/technical school
- ☐ College or University (Bachelor's degree)
- ☐ Less than 4 years post-secondary (teacher's college, nursing school, etc)
- ☐ 4 years post-secondary (PhD, JD, MD)

11) Which platform are you using to access this survey?

- ☐ Mobile phone
- ☐ Tablet
- ☐ Laptop
- ☐ Desktop
- ☐ Other (please specify) _____

General Comprehension Questions

Please answer the following questions about the statement you just saw.

12) Which of the following were present in the statement?

Select all that apply:

- ☐ Performance of the account
- ☐ Risk-level of the account
- ☐ Fees associated with the account
- ☐ Summary of the transactions you made in 2017
- ☐ A list of all the charges that might apply to the account
- ☐ Overview of asset allocation

Appendix B: Full List of Survey Questions

13) Which of the following actions have you taken on this account?

- o Deposited and withdrew a total of -\$1,200
- o Deposited \$4,000
- o Opened a new investment account
- o Withdrew \$5,200

14) What was the total amount of fees you paid in 2017?

- o 0 - \$499
- o \$500 - \$999
- o \$1000 - \$1499
- o \$1500 - \$1999
- o \$1500 - \$1999
- o \$2000 - \$2499
- o \$2500 - \$2999
- o Over \$3000

Detailed Comprehension Questions

15) What is a deferred sales charge (DSC)?

- o A fee you pay when you withdraw money from your fund within a certain period of time after opening the fund.
- o A fee you pay when you switch to another type of investment account.
- o A commission you pay when you purchase certain types of funds.
- o A commission you pay when you receive advice.

16) Did you pay for financial advice from an advisor in 2017?

- o Yes
- o No
- o Not sure

Appendix B: Full List of Survey Questions

17) Please select all of the statements which are true about how your personal rate of return was calculated.

- ☐ Your rate of return is specific to you and does not necessarily apply to others who hold the same investments
- ☐ Money-weighted rates of return are adjusted for market conditions
- ☐ It does not take your personal deposits and withdrawals throughout the year into account
- ☐ My rate of return this year is a good estimate of what my rate of return will be next year
- ☐ It reflects how well the fund performed

18) How much has the market value of your account increased or decreased by in dollars in 2017?

- ☐ -\$348.75
- ☐ -\$1,035.00
- ☐ -\$1,200.00
- ☐ -\$2,928.85
- ☐ \$2,928.85
- ☐ \$1,200.00
- ☐ \$1,035.00
- ☐ \$348.75

19) Which type of fee did you pay the most for in 2017?

- ☐ RSP administration
- ☐ Commission from investment fund managers for DSC investments
- ☐ Trailing commission
- ☐ Trustee fee
- ☐ Transfer fee

Appendix B: Full List of Survey Questions

20) If you did receive advice, how much did you pay in commissions for advice?

- o I did not receive advice
- o \$246.00
- o \$789.00
- o \$106.00
- o \$286.00
- o \$503.00

21) How much did you pay in commissions for being sold a DSC product?

- o \$246.00
- o \$789.00
- o \$106.00
- o \$286.00
- o \$503.00

Subjective Comprehension

22) To what extent do you feel you have a good understanding of the following aspects of the statement? (Rating scale from 1 to 7, 1 = very poor understanding, 7 = excellent understanding)

- o Your transactions
- o Fees you paid
- o Your account's performance
- o Services you received

23) How difficult was this statement to understand? (Rating scale from 1 to 7, 1 = very difficult to understand, 7 = Very easy to understand)

Appendix B: Full List of Survey Questions

Goal Relevant Behaviour

24) Assume your general lifestyle and daily expenses will remain the same next year as they were this year. How likely would you be able to take each of the following actions next year? (Rating scale from 1 to 7, 1 = highly unlikely, 7 = highly likely)

- o Make more deposits than 2017
- o Make fewer withdrawals than 2017

25) What percentage of your regular pay check would you be willing to deposit into this account on an on-going basis next year? (Selected % on a scale ranging from 0% to 50%).

26) You are currently invested in a fund which has an annual total fee of 2.75%. To what extent would you intend to switch to a lower fee fund? (Rating scale from 1 to 7, 1 = highly unlikely, 7 = highly likely)

27) How likely would you be to speak with an advisor to learn more about what you can do to improve your future outcomes as an investor? (Rating scale from 1 to 7, 1 = highly unlikely, 7 = highly likely)

28) If you did meet with an advisor, how likely would you be able to ask questions about each of the following? (Rating scale from 1 to 7, 1 = highly unlikely, 7 = highly likely)

- o Fees you paid
- o Services you received
- o Actions you can take to achieve your goals
- o Market forces

Appendix B: Full List of Survey Questions

Trust

29) In the future, how much would you be willing to pay for professional financial advice (per year)? Selected on a scale from 0 to \$1000.

30) How important do you feel it is to: (Rating scale from 1 to 7, 1 = Highly unimportant, 7 = highly unimportant)

- o Seek advice from investment professionals?
- o Follow the recommendations of investment professionals?
- o Have a financial goal for this account?
- o Have a financial plan?

Appendix B: Full List of Survey Questions

Intended Attention

31) In your personal opinion, how important were the following aspects to view and read in detail? (Rating scale from 1 to 7, 1 = Highly unimportant, 7 = highly unimportant)

- o Your personal rate of return
- o Your transactions
- o Fees you paid

Memory Check

32) What was your goal for this account?

- o \$75,000 in 2 – 5 years
- o \$75,00 in 5 – 10 years
- o \$100,00 in 2 – 5 years
- o \$100,00 in 5 – 10 years
- o \$150,000 in 2 – 3 years
- o \$150,000 in 5 – 10 years

Attention Check (appeared at random in the middle of the survey)

33) This is an attention check to ensure thoughtful completion of this survey. From the list below, please select the risky investment option and ignore the other options.

- o Market performance
- o Proportion of fees
- o Asset allocation
- o Risky investment

Appendix C: BE Statements

Simple BE Statement 1 (Page 1)

- Your account started with \$51,063.49. You withdrew \$5,200.00 from your account
- You contributed \$4,000.00 to your account
- Your investments have increased by \$2,928.85 to a total of \$52,792.34

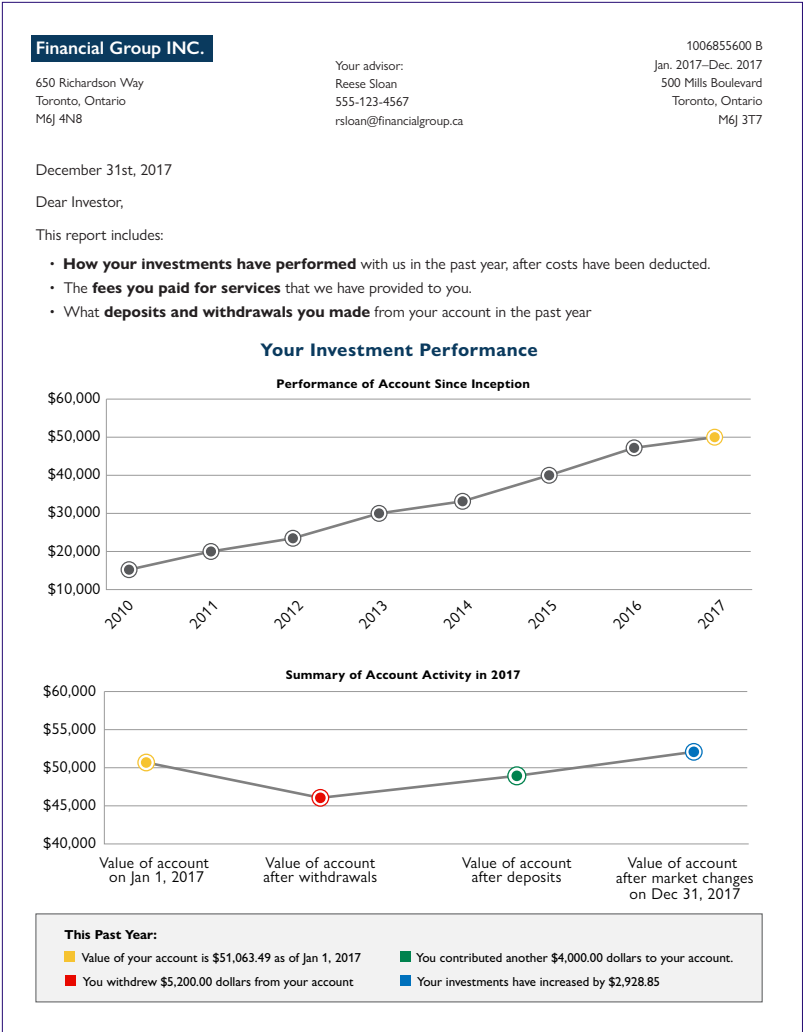
Simple BE Statement 1 (Page 3)

Your fund dealer is:

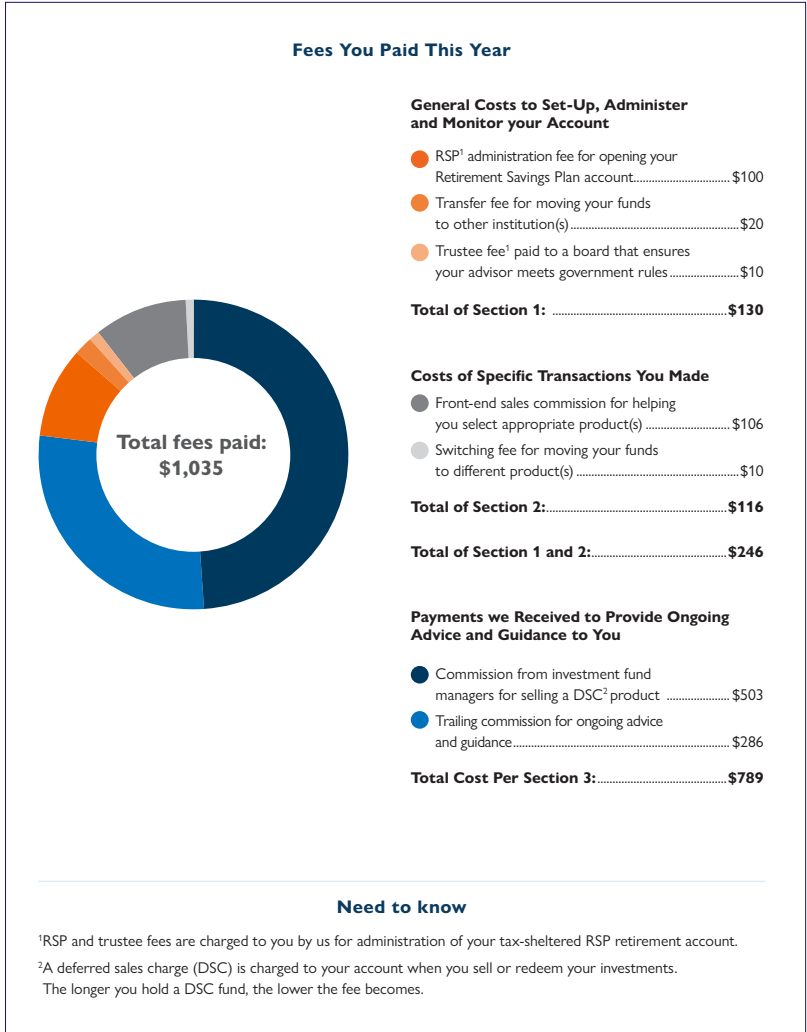
Financial Group INC.

Appendix C: Simple Statements

Simple BE Statement 2 (Page 1)



Simple BE Statement 2 (Page 2)



Simple BE Statement 2 (Page 3)

Your fund dealer is:

Financial Group INC.

Appendix C: Comprehensive Statements

Comprehensive BE Statement 1 (Page 1)

Hi Investor! This is Your Annual Statement Checklist

Keep it handy as you go through the rest of your statement.

- ☐ Define what your goal is with this account:

- ☐ Ensure that you understand the services you receive for the fees you pay (see page 3)
- ☐ Ensure that you understand what affected the performance of your account over the last year (see pages 1 & 2)
- ☐ Decide if you are satisfied with how much you contributed to your account this year (see pages 1 & 2)
- ☐ Get investment advice (see page 4)
 - ☐ Did you talk to an advisor this year?
 - ☐ Do you know how to reach your advisor?
 - ☐ Do you know what you want to ask your advisor?
- ☐ Identify a small step you can take in the coming month, to support your goal with this account:

Email or call to speak with your advisor:
rsloan@financialgroup.ca
555-123-4567

Your fund dealer is:
Financial Group INC.

Comprehensive BE Statement 1 (Page 2)

Financial Group INC.

650 Richardson Way
Toronto, Ontario
M6J 4N8

Your advisor:
Reese Sloan
555-123-4567
rsloan@financialgroup.ca

1006855600 B
Jan. 2017–Dec. 2017
500 Mills Boulevard
Toronto, Ontario
M6J 3T7

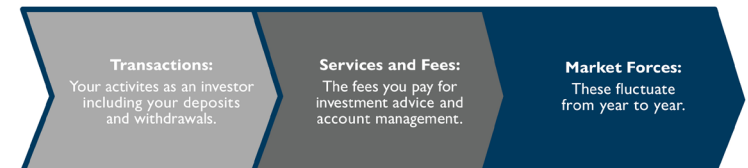
December 31st, 2017

Dear Investor,

This report includes:

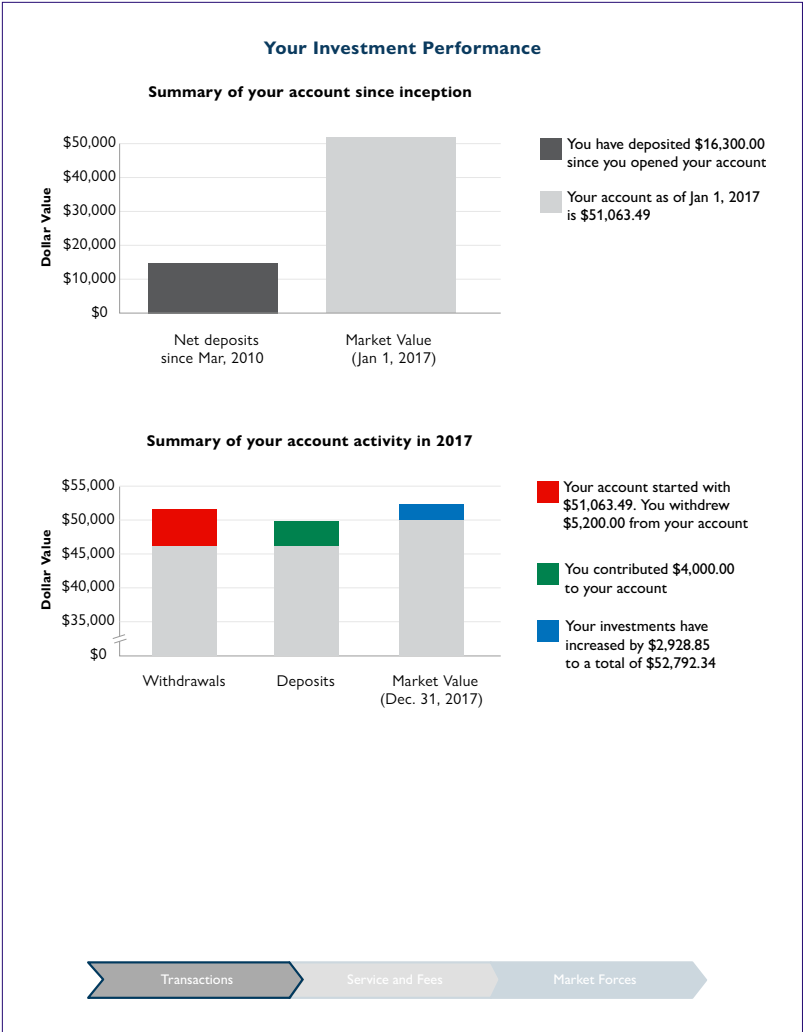
- **How your investments have performed** with us in the past year, after costs have been deducted.
- The **fees you paid for services** that we have provided to you.
- What **deposits and withdrawals you made** from your account in the past year.

Birds-Eye View of Your Statement

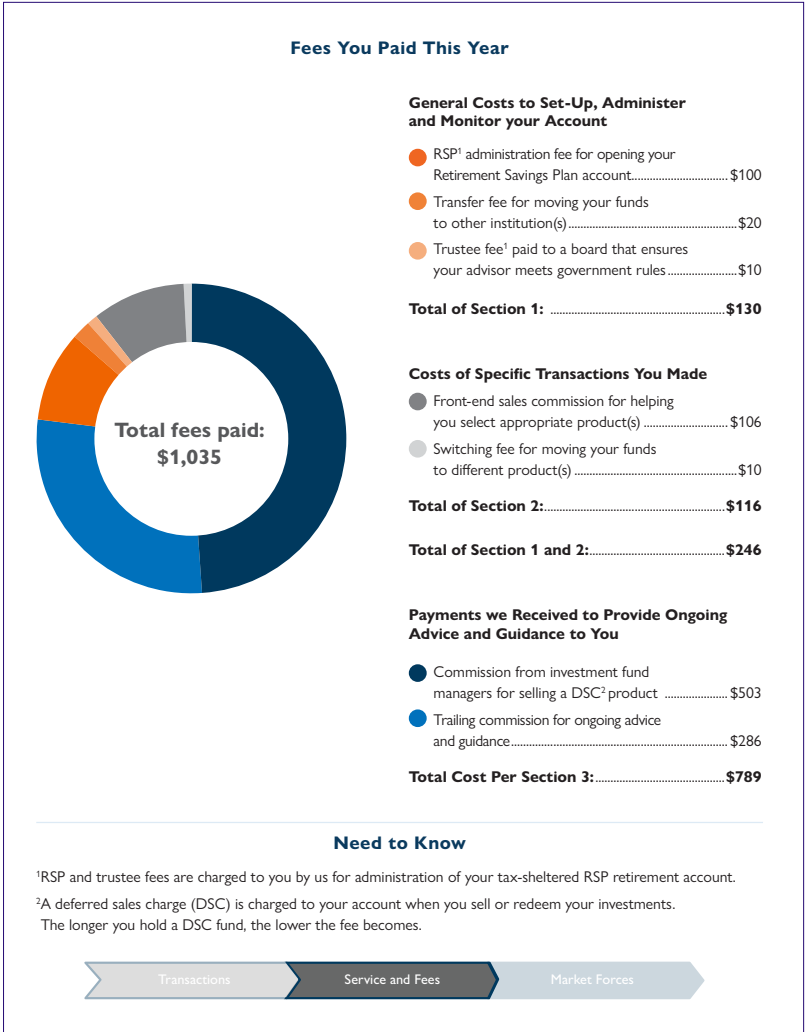


Appendix C: Comprehensive Statements

Comprehensive BE Statement 1 (Page 3)



Comprehensive BE Statement 1 (Page 4)



Appendix C: Comprehensive Statements

Comprehensive BE Statement 2 (Page 1)

Hi Investor! This is Your Annual Statement Checklist

Keep it handy as you go through the rest of your statement.

- ☐ Define what your goal is with this account:

- ☐ Ensure that you understand the services you receive for the fees you pay (see page 3)
- ☐ Ensure that you understand what affected the performance of your account over the last year (see pages 1 & 2)
- ☐ Decide if you are satisfied with how much you contributed to your account this year (see pages 1 & 2)
- ☐ Get investment advice (see page 5)
 - ☐ Did you talk to an advisor this year?
 - ☐ Do you know how to reach your advisor?
 - ☐ Do you know what you want to ask your advisor?
- ☐ Identify a small step you can take in the coming month, to support your goal with this account:

Email or call to speak with your advisor:
rsloan@financialgroup.ca
555-123-4567

Your fund dealer is:
Financial Group INC.

Comprehensive BE Statement 2 (Page 2)

Financial Group INC.

650 Richardson Way
Toronto, Ontario
M6J 4N8

Your advisor:
Reese Sloan
555-123-4567
rsloan@financialgroup.ca

1006855600 B
Jan. 2017–Dec. 2017
500 Mills Boulevard
Toronto, Ontario
M6J 3T7

December 31st, 2017

Dear Investor,

This report includes:

- **How your investments have performed** with us in the past year, after costs have been deducted.
- The **fees you paid for services** that we have provided to you.
- What **deposits and withdrawals you made** from your account in the past year.

Progress Towards Your Investment Goal

The bar below shows your progress towards achieving your personal investment goal. See box below for how your activities affected your progress.



How your activity this year affects your progress:

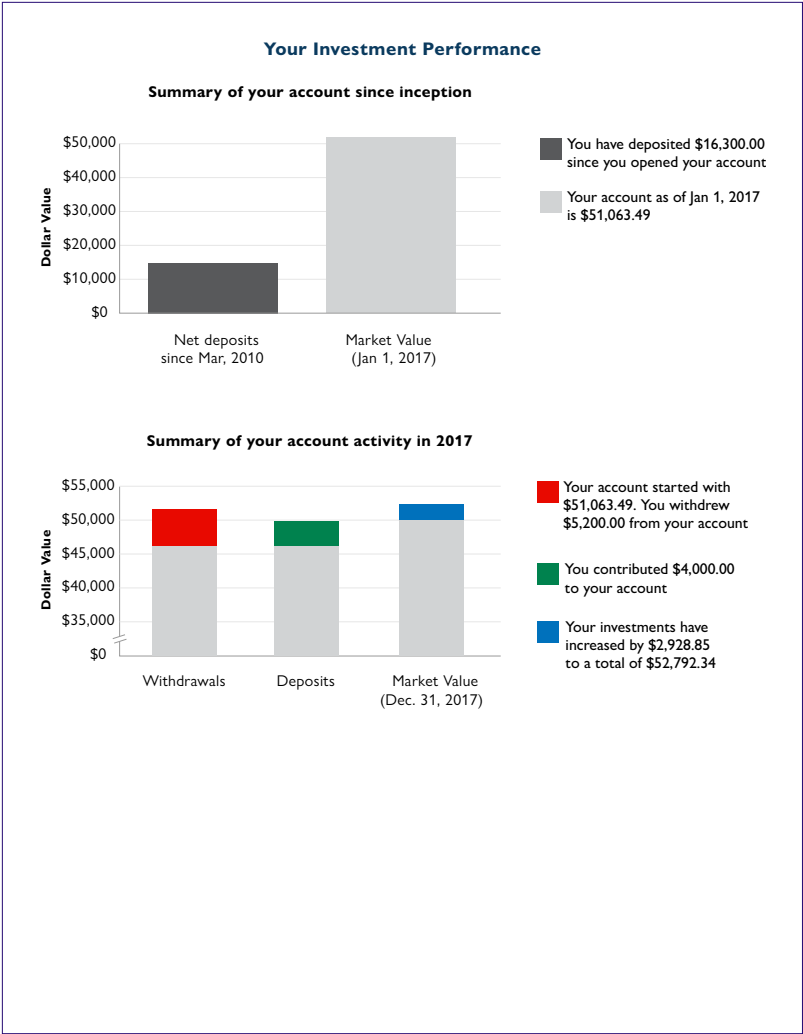
- ✓ You made 8 deposits
- ✗ You made 4 withdrawals
- ✓ You met with your advisor

Market Activity:

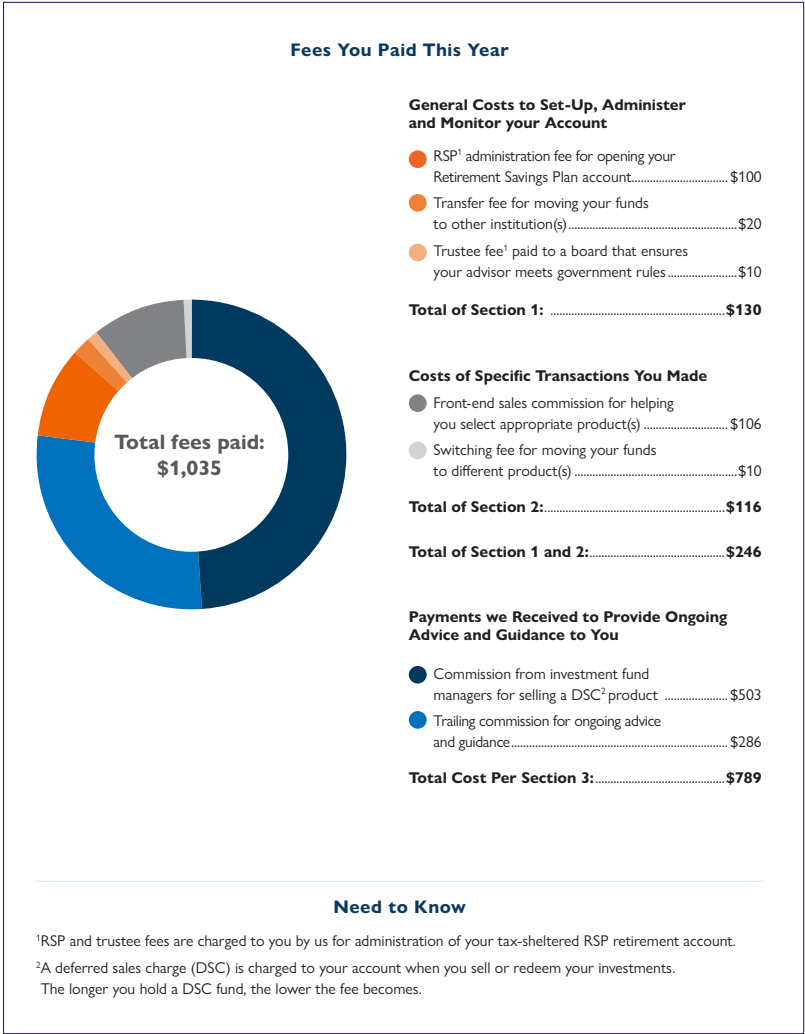
- The market value of your account increased this year

Appendix C: Comprehensive Statements

Comprehensive BE Statement 2 (Page 3)

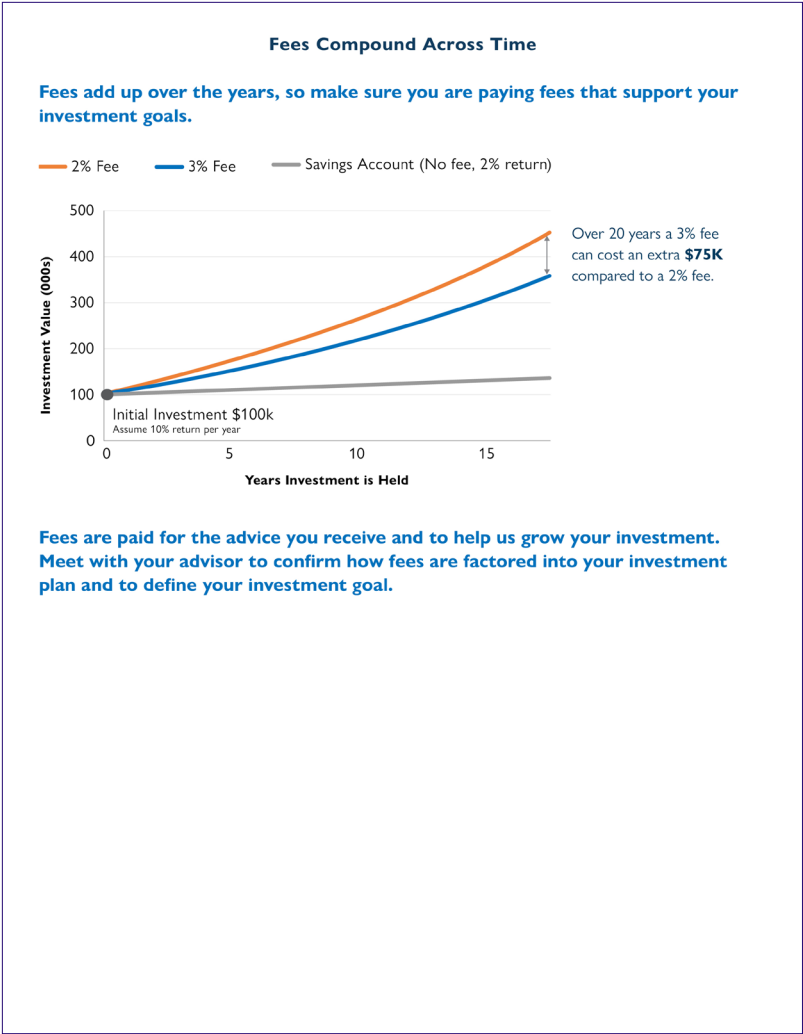


Comprehensive BE Statement 2 (Page 4)

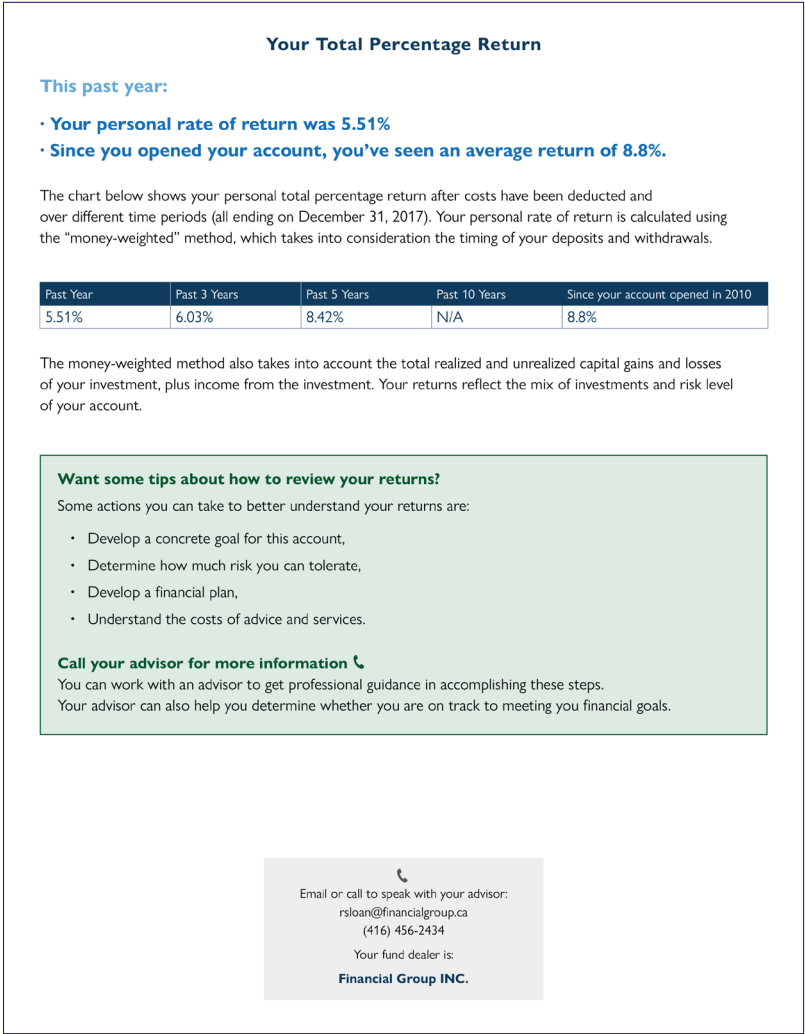


Appendix C: Comprehensive Statements

Comprehensive BE Statement 2 (Page 5)

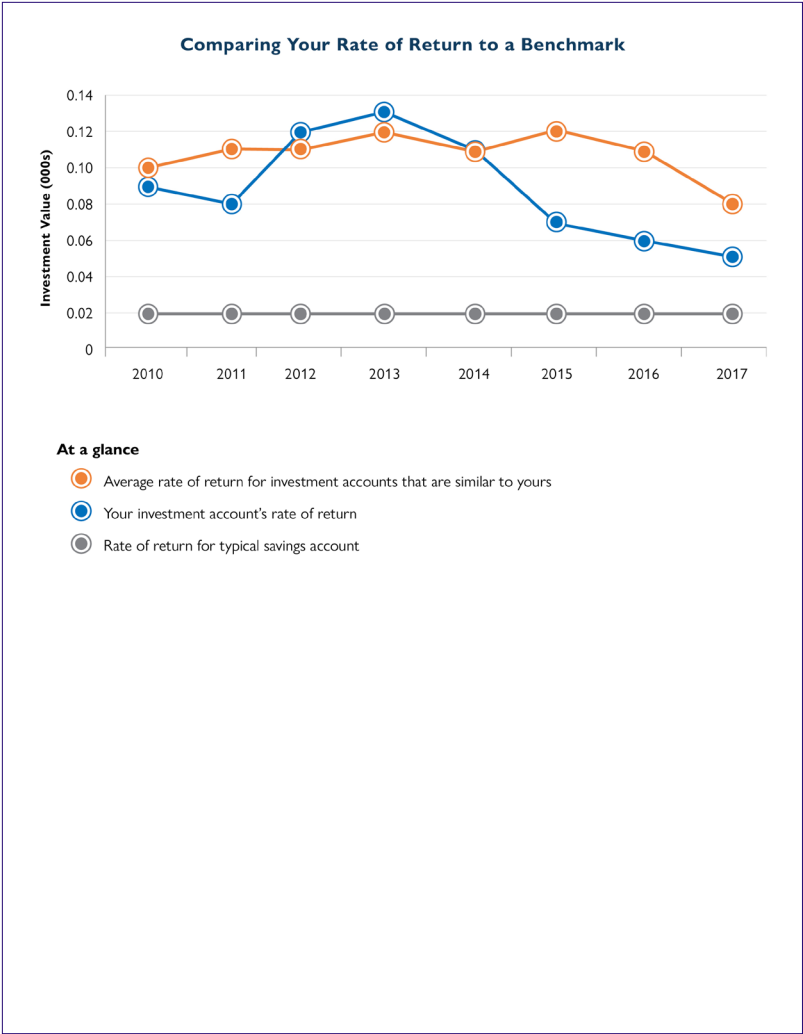


Comprehensive BE Statement 2 (Page 6)



Appendix C: Comprehensive Statements

Comprehensive BE Statement 2 (Page 7)



Comprehensive BE Statement 2 (Page 8)

List of Operating Charges and Fees	
The fees listed below may apply based on account administration or the services provided within your account. Additional information is available by contacting your advisor.	
Annual Charges the Administration of Nominee Registered Accounts*	
\$150.00	Registered Retirement accounts, per client to a maximum of \$150 per client
\$ 50.00	Tax Free Savings account (TFSA), per account to a maximum of \$150 per client
\$ 50.00	Group RSP account, per account to a maximum of \$150 per client
\$ 50.00	Registered Education Savings Plan (RESP) account, per account no maximum Service charges
Service Charges	
\$250.00	Fee for the setup and administration of private securities per issue deposit date, plus
\$100.00	Annually per issue
\$150.00	Account deregistration fee
\$150.00	Processing fee for account transfers
\$125.00	Administration costs for maintaining a manual or restricted mutual fund, per year
\$ 50.00	Cost recovery for the administration and transfer of physical security certificates per certificate, plus third party costs
\$ 35.00	Cost recovery for processing due to insufficient funds
\$ 35.00	Cost recovery for wire transfer processing
\$ 25.00	Account closing fee
\$ 20.00	Cost recovery for processing of GICs per purchase
Notes	
• Fees will be charged in the currency of the account	
• All fees are subject to applicable sales taxes	
• Interest rates are established on a variable rate basis using the prime rate of interest.	
Posted Rates Can be Found Online.	
• Some of the fees itemized may not apply to you	
*Reports fees paid for RSP, RIF, Spousal, Locked-in, TFSA, and RESP account types. Fees are only reported in accounts that paid the fee. Exceptions may apply. Talk to your advisor for details.	

BE*works*
