# Table of Contents

- Introduction and Key Findings 3
  - Overall Findings 7
- Perceived Investment Knowledge vs. Actual Performance 16
- Perceived Knowledge and the Debiasing Effect 21
- Appendix: Detailed Results and Methodology 25
  - OECD Core Questions 26
  - Core Investing Principles & Concepts 35
  - Investment Costs 43
  - Registered Accounts 51
  - Protecting Your Portfolio 56
  - Cognitive Reflection Test: Detailed Results 63
  - Sample Profile: Demographics and Finances 66
  - Survey Methodology 70
Introduction

The Importance of Financial Literacy

As individuals take on more responsibility for their own investing, it is essential that they have enough financial knowledge to effectively participate in Canada’s capital markets. Investors’ knowledge, attitudes, skills, and behaviours are all contributors to having a successful investing journey.

The Investor Office

The Investor Office is a regulatory branch that sets the strategic direction and leads the OSC’s efforts in investor engagement, education, outreach and research. The Office develops investor policy; plays a key role in the oversight of the Ombudsman for Banking Services and Investments; and provides leadership at the OSC in the area of behavioural insights and improving the investor experience. Its investor website GetSmarterAboutMoney.ca is one of Canada’s most visited financial literacy websites visited by millions of people each year.

Assessing the Level of Financial Literacy of Investors

The Investor Office conducted this research study to assess the financial knowledge of retail investors across a number of areas. The survey includes the widely-used financial knowledge questions currently used across Organization for Economic Co-operation and Development (OECD) jurisdictions to assess financial knowledge (developed by Professor Annamaria Lusardi and Professor Olivia Mitchell of the Wharton School). These questions have been utilized by the Investor Office and the Canadian Securities Administrators (CSA) to assess objective financial knowledge of survey participants. Additional survey questions were developed by the Investor Office to gauge investor knowledge in further areas.
1. **There is a broad range of investment knowledge among Canadian investors.** The survey tested 27 financial literacy questions covering a wide range of investment-related topics. On average, investors answered 53% of the questions correctly.

2. **Canada has one of the highest financial literacy rates when compared globally.** We found that Canadians averaged answering 68% of the OECD questions correctly. The 2020 S&P Global Finlit survey found that 68% of Canadians are financially literate.* Other countries with the highest financial literacy rates were Australia, Denmark, Finland, Germany, Israel, the Netherlands, Norway, Sweden and the United Kingdom (55-75%).

3. **Investors have the least knowledge when it comes to investment costs and investor protections.** The fewest correct responses were provided to questions about investment costs (36%) and portfolio protections (44%).

4. **About 3-in-10 Canadian investors self-assessed their financial knowledge too highly.** Comparing those prior self-assessments to investors’ actual results reveals that about 3-in-10 (29%) underperformed their expectations, while 14% exceeded their own expectations.

5. **On average, self-directed investors were the most financially-literate.** The average self-directed investor answered 59% of the questions correctly. This compares to 52% for investors with advisors and 49% for investors working with a robo-adviser.

6. **Women were slightly less financially literate than men.** The average woman answered 50% of the questions correctly compared to 56% for the average man.

7. **There are effective ways to reduce overconfidence in some investors (de-biasing).** After going through the survey, 31% of participants lowered their self-assessment after going through the 27 questions. Younger investors (aged 18-34) were more likely to do so (39%).

Research Objectives

The Investor Office research covers the following **five areas** that are of importance for investors when making informed investment decisions:

1. **OECD Core Questions** – the 7 questions used in the CSA Investor Index and used across OECD jurisdictions;

2. **Core Investing Principles and Concepts** – the broad underlying principles and investing concepts;

3. **Investment Costs** – the fee characteristics of different investment products and advisory relationships;

4. **Registered Accounts** – the key features of different registered account types (RRSPs, TFSAs, RESPs); and

5. **Protecting Your Portfolio** – understanding investor rights & responsibilities.
The twenty-seven financial literacy questions are grouped into five categories and represent different ways of measuring financial literacy and the varying areas of knowledge.

<table>
<thead>
<tr>
<th>OECD Core Questions</th>
<th>Core Investing Principles &amp; Concepts</th>
<th>Investment Costs</th>
<th>Registered Accounts</th>
<th>Protecting Your Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compound interest</td>
<td>Time horizon</td>
<td>Link between fees and returns</td>
<td>TFSA</td>
<td>Internal complaint handling</td>
</tr>
<tr>
<td>Mortgage amortization</td>
<td>Safety of Canadian securities</td>
<td>Management Expense Ratio (MER) Impact</td>
<td>RRSP</td>
<td>Checking registration</td>
</tr>
<tr>
<td>Inflation</td>
<td>Break even calculation</td>
<td>Index funds</td>
<td>RESP</td>
<td>Firm transfers</td>
</tr>
<tr>
<td>Investment risk</td>
<td>Past performance</td>
<td>No-load mutual funds</td>
<td></td>
<td>Abnormal returns</td>
</tr>
<tr>
<td>Diversification</td>
<td>Products by risk</td>
<td>Products with MERs</td>
<td></td>
<td>External complaint handling</td>
</tr>
<tr>
<td>Bond vs. Interest rate</td>
<td>Leveraged investing</td>
<td>Advisor costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutual fund returns not guaranteed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overall Findings

Over the course of the survey, 27 financial literacy questions were broken down into five categories. Our analysis presents both an overall index of respondents score across all 27 items, and then separate indices for their scores on each of the 5 categories. In the following section, a summary of results across both the overall results and results for each category are presented.
Purpose

This report for the OSC Investor Office presents the results of the in-depth survey designed by the OSC’s Investor Office on investors’ financial literacy across Canada.

The report explores several key questions about the level of financial literacy in Canada:

• Overall, how financially literate are investors? Are there important differences in financial literacy across the five categories?
• Are there differences in the kinds of knowledge different groups of Canadian investors have?
• How do Canadian investors’ perceptions of their financial knowledge compare to their ability to answer questions measuring financial literacy?
• Are there groups of investors who have greater differences between their perceptions of their own financial knowledge and their actual performance?
• Can investors be debiased as to the level of their financial knowledge and if so, who is more likely to be debiased?
• How strongly does cognitive reflection* correlate with real and self-assessed financial knowledge measures?
• How strong is the link between cognitive reflection and the overall results, and with each theme area?

*Throughout the report, we use a “Cognitive Reflection Test” as a measure of cognitive ability. This test is a validated and efficient way to assessing cognitive ability in a survey. For more information see: Frederick, Shane. 2005. “Cognitive Reflection and Decision Making.” Journal of Economic Perspectives, 19 (4): 25-42.DOI: 10.1257/089533005775196732.
Overall, these 27 questions provide a detailed overview of financial literacy among Canadian investors.

Investors have highest knowledge on registered accounts (69%) and OECD core questions (68%), and least knowledge when it comes to portfolio protection (44%) and investment costs (36%).

This “Overall index” summarizes results for all 27 financial literacy questions on the survey across the 5 topics covered.

On average, respondents answered 53% (14/27) of the financial literacy questions correctly.

Broken in 5 categories the average scores for each category were:

- Registered Accounts: 69%
- OECD Core Questions: 68%
- Core Investing Principles & Concepts: 54%
- Protecting Your Portfolio: 44%
- Investment Costs: 36%

Segmentation: Overall score in % of correct responses

- Gender:
  - Men: 56%
  - Women: 50%

- Age:
  - 18-34: 51%
  - 35-54: 53%
  - 55+: 56%

- Asset Management:
  - Advisor: 52%
  - Robo-adviser: 49%
  - Self-directed investor: 59%

- Cognitive Reflection:
  - Low: 47%
  - Medium: 58%
  - High: 64%

\* difference between groups is not significant at a 95% confidence level
\* difference between groups is significant at a 95% confidence level
OECD Core Questions: Investors answered 5/7 correctly, with the results skewed by two questions that have fewer correct responses.

On these standard financial literacy questions, only a third of investors can answer the “bond vs. interest rates” and “mutual fund” questions correctly, while other questions see higher scores. The overall scores are significantly different across the segmentations tested.

The OECD Core Questions summarizes results for 7 financial literacy questions used across OECD countries including provincial securities regulators in Canada in the CSA Investor Index.
Core Investing Principles & Concepts: The average investor answered half of these questions correctly.

On the 6 new financial literacy questions developed for the survey to test core investing principles, investors best understood the relationship between investment time horizon and risk while their understanding of relative product risk, whether past performance is a good indicator of future returns, and leveraged investing was less than 50%.

The scores for each question were:

- Time horizon: 74%
- Safety of Canadian securities: 60%
- Break even calculation: 54%
- Past performance: 47%
- Products by risk: 47%
- Leveraged investing: 43%

On average, respondents answered 54% (3/6) principles & concepts questions correctly.

Segmentation
Core Investing Principles & concepts score in % of correct responses

<table>
<thead>
<tr>
<th>Gender</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>58%</td>
</tr>
<tr>
<td>Women</td>
<td>49%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>53%</td>
</tr>
<tr>
<td>35-54</td>
<td>53%</td>
</tr>
<tr>
<td>55+</td>
<td>56%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td>52%</td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>47%</td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>61%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>44%</td>
</tr>
<tr>
<td>Medium</td>
<td>61%</td>
</tr>
<tr>
<td>High</td>
<td>72%</td>
</tr>
</tbody>
</table>

* = difference between groups is not significant at a 95% confidence level
= difference between groups is significant at a 95% confidence level
Investment Costs: Performance on investment costs questions were the lowest (36%) compared to other questions sets

Most investors can correctly answer a question about whether fees are linked to returns. However, for all other investment cost questions, no more than 35% of investors answer correctly. Self-directed investors know more than advised investors, and the results are positively correlated with the cognitive reflection test.

The Investment Costs index summarizes results for the 6 new financial literacy questions on the survey focused on investing costs.

On average, respondents answered 36% (2/6) investment costs questions correctly.

The scores for each question were:

- Link between fees & returns: 76%
- MER Impact: 35%
- Index funds: 31%
- No-load mutual funds: 27%
- Products with MERs: 23%
- Advisor costs: 22%

Segmentation: Investment costs score in % of correct responses

<table>
<thead>
<tr>
<th>Gender</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>41%</td>
</tr>
<tr>
<td>Women</td>
<td>29%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>37%</td>
</tr>
<tr>
<td>35-54</td>
<td>35%</td>
</tr>
<tr>
<td>55+</td>
<td>36%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td>32%</td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>35%</td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>44%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>30%</td>
</tr>
<tr>
<td>Medium</td>
<td>39%</td>
</tr>
<tr>
<td>High</td>
<td>47%</td>
</tr>
</tbody>
</table>

 diferencia between groups es no significative a un nivel de confiabilidad del 95%
Most knew the correct response on TFSAs and RRSPs, while investors struggled with the measure of RESP knowledge.

On average, respondents answered 69% (2/3) registered account questions correctly.

The scores for each question were:
- TFSA: 89%
- RRSP: 81%
- RESP: 38%

The Registered Accounts index summarizes results for the 3 new financial literacy questions on the survey focused on understanding registered accounts.

The scores for each question were:
- TFSA: 89%
- RRSP: 81%
- RESP: 38%

The Registered Accounts index summarizes results for the 3 new financial literacy questions on the survey focused on understanding registered accounts.

On average, respondents answered 69% (2/3) registered account questions correctly.

The scores for each question were:
- TFSA: 89%
- RRSP: 81%
- RESP: 38%

The Registered Accounts index summarizes results for the 3 new financial literacy questions on the survey focused on understanding registered accounts.

On average, respondents answered 69% (2/3) registered account questions correctly.

The scores for each question were:
- TFSA: 89%
- RRSP: 81%
- RESP: 38%

The Registered Accounts index summarizes results for the 3 new financial literacy questions on the survey focused on understanding registered accounts.

On average, respondents answered 69% (2/3) registered account questions correctly.

The scores for each question were:
- TFSA: 89%
- RRSP: 81%
- RESP: 38%
Protecting Your Portfolio: Of the 5 questions about portfolio protection, the average investor answered two correctly.

For two of the five questions (“Internal complaint handling” and “Registration check”) about two-thirds of investors knew the correct answer. However, for the other 3, no more than 35% were able to answer correctly.

The Protecting Your Portfolio index summarizes results for the 5 new financial literacy questions on the survey focused on awareness and understanding of investor protections.

On average, respondents answered 44% (2/5) portfolio questions correctly.

The scores for each question were:

- **Internal Complaint Handling**: 69%
- **Checking registration**: 66%
- **Firm transfers**: 35%
- **External Complaint Handling**: 32%
- **Abnormal returns**: 20%+

Segmentation:

- **Gender**
  - Men: 45%
  - Women: 44%

- **Age**
  - 18-34: 39%
  - 35-54: 44%
  - 55+: 49%

- **Asset Management**
  - Advisor: 44%
  - Robo-adviser: 38%
  - Self-directed investor: 47%

- **Cognitive Reflection**
  - Low: 41%
  - Medium: 47%
  - High: 48%
Gender Differences: Women answered fewer questions correctly on both sets of core questions, as well as investment cost questions.

% of correct responses...

<table>
<thead>
<tr>
<th>Category</th>
<th>Men</th>
<th>Women</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Core Questions</td>
<td>72%</td>
<td>64%</td>
<td>-7.9% *</td>
</tr>
<tr>
<td>Core Investing Principles &amp; Concepts</td>
<td>58%</td>
<td>49%</td>
<td>-8.5% *</td>
</tr>
<tr>
<td>Investment Costs</td>
<td>41%</td>
<td>29%</td>
<td>-11.4% *</td>
</tr>
<tr>
<td>Registered Accounts</td>
<td>69%</td>
<td>69%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Protecting Your Portfolio</td>
<td>45%</td>
<td>44%</td>
<td>+1.5%</td>
</tr>
</tbody>
</table>

*Difference between Men and Women is significant at a 95% confidence level
Perceived Investment Knowledge vs. Actual Performance
At the beginning of the survey, respondents were asked to rate their overall knowledge. Most (56%) ranked themselves as average while 30% rated themselves as having “High” or “Very high” knowledge.

How would you rate your overall knowledge when it comes to financial matters?
[asked all of respondents; n=2,500]

Pre-Survey Perceived Knowledge

Note: These groups are based on respondents actual scores on the 27 financial literacy questions. A score is counted as a ‘High score’ if it was at least 1 standard deviation above the average score, and ‘Very high score’ if it was 2 standard deviations or more above the average score. Below average was counted using the same rules in reverse.
How would you rate your overall knowledge when it comes to financial matters?

Note: These groups are based on respondents’ actual scores on the 27 financial literacy questions. A score is counted as a ‘High score’ if it was at least 1 standard deviation above the average score, and ‘Very high score’ if it was 2 standard deviations or more above the average score. Below average was counted using the same rules in reverse.
Results vs. Expectations: About 3-in-10 investors (29%) underperformed relative to their expected level of investment knowledge.

We created an Expectation vs. Performance segmentation to classify respondents into 5 groups based on the comparison of their self-assessed financial knowledge and their actual results on the financial literacy questions.

Met expectations

Results Met High Expectations: Participants whose actual performance and prior self-assessment were both above average.

Results Met Average Expectations: Participants whose actual performance and prior self-assessment were both average.

Results Met Low Expectations: Participants whose actual performance and prior self-assessment were both below average.

Did not meet expectations

Overperformed Expectations: Participants whose actual performance was better than their prior self-assessment.

Underperformed Expectations: Participants whose actual performance was worse than their prior self-assessment.
Overconfidence vs. Under-confidence

Overconfidence: investors under 35, investors with a robo-adviser, and those low on cognitive reflection were the most likely to underperform expectations. Under-confidence: women, and investors with an advisor were the most likely to overperform their expectations.

Overall 29% **UNDERPERFORMED** their expected level of financial knowledge.

Overall 14% **OVERPERFORMED** their expected level of financial knowledge.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men</th>
<th>32%</th>
<th>Women</th>
<th>24%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-34</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-54</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55+</td>
<td>22%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisor</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Reflection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men</th>
<th>12%</th>
<th>Women</th>
<th>17%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-34</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-54</td>
<td>14%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55+</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisor</td>
<td>16%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Reflection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>13%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>14%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

= difference between groups is **not** significant at a 95% confidence level

= difference between groups is **significant** at a 95% confidence level
Perceived Knowledge and the Debiasing Effect

Before the financial literacy questions, we asked respondents to rate their level of financial knowledge. After the questions, they were asked to self-assess how well they did. By comparing the two questions we can understand whether people felt their performance was higher, lower, or about the same as their expectation and their willingness to reassess their abilities.
Debiasing Effect: Investors’ self-assessed financial knowledge decreased after completing the questions

After going through the survey, nearly twice as many say their results were below average after the questions as rated their knowledge “Low” or “Very low” (and not “Average) at the outset. 24% of investors rated their knowledge as above average after the questions, a 6-points drop from before the start of the survey.

---

**Pre-Survey Perceived Knowledge**

How would you rate your overall knowledge when it comes to financial matters?  
[asked all of respondents; n=2,500]

<table>
<thead>
<tr>
<th>Perceived Knowledge</th>
<th>Pre-Survey</th>
<th>Post-Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low</td>
<td>14%</td>
<td>3%</td>
</tr>
<tr>
<td>Low</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>Average</td>
<td>56%</td>
<td>30%</td>
</tr>
<tr>
<td>High</td>
<td>30%</td>
<td>27%</td>
</tr>
<tr>
<td>Very high</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Post-Survey Perceived Knowledge**

You just answered 27 questions about finance and investing. Thanks for hanging in there! In terms of correct answers, do you think that you are above or below the average of the other respondents?  
[asked all of respondents; n=2,500]

<table>
<thead>
<tr>
<th>Perceived Knowledge</th>
<th>Well below average</th>
<th>Below average</th>
<th>Average</th>
<th>Above average</th>
<th>Well above average</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4%</td>
<td>20%</td>
<td>49%</td>
<td>21%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Some investors respond to efforts to de-bias them as to their level of financial knowledge. After going through the survey, 31% of participants lowered their self-assessment after going through the 27 questions. Younger investors (aged 18-34) were more likely to do so. 52% did not change their self-assessment. 3% raised their self-assessment.
Debiasing Effect: Investors under 35 were the mostly likely to revise their self-assessed financial knowledge downwards.

Investors 18-34 were more likely than other age cohorts to revise their performance on the quiz downwards from their stated financial knowledge at the outset of the survey. When it came to raising their self-assessment, there were no segments that were significantly different from the other.

Overall 14% RAISED their belief in their level of knowledge after 27 questions.

Overall 52% DIDN’T CHANGE their belief in their level of knowledge after 27 questions.

Overall 31% LOWERED their belief in their level of knowledge after 27 questions.

Segmentation:

Gender

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>35-54</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>55+</td>
<td>14%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Age

<table>
<thead>
<tr>
<th></th>
<th>18-34</th>
<th>35-54</th>
<th>55+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>13%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Women</td>
<td>13%</td>
<td>15%</td>
<td>14%</td>
</tr>
</tbody>
</table>

= difference between groups is not significant at a 95% confidence level
= difference between groups is significant at a 95% confidence level
Appendix:
Detailed Results and Methodology
OECD Core Questions
OECD Core Questions: Investors answered 5/7 correctly, with the results skewed by two questions that have fewer correct responses.

On these standard financial literacy questions, only a third of investors can answer the “bond vs. interest rates” and “mutual fund” questions correctly, while other questions see higher scores. The overall scores are significantly different across the segmentations tested.

The OECD Core Questions summarizes results for 7 financial literacy questions used across OECD countries including provincial securities regulators in Canada in the CSA Investor Index.
Most investors, even those who scored low on the CRT test, understand how compound interest works in a savings accounts. Fewer investors understand the more challenging concept of the compounding effect of fees on their returns over time (see slide 50).

**Compound Interest**
Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?
[asked of all respondents; n=2,500]

<table>
<thead>
<tr>
<th>Correct</th>
<th>More than $102</th>
<th>89%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exactly $102</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Less than $102</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>It is impossible to tell from the information given</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Segmentation
**Those who were correct**

<table>
<thead>
<tr>
<th>Gender</th>
<th>92%</th>
<th>85%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>92%</th>
<th>90%</th>
<th>91%</th>
<th>88%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>88%</th>
<th>87%</th>
<th>93%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robo-adviser</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-directed investor</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th>82%</th>
<th>95%</th>
<th>99%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

= difference between groups is not significant at a 95% confidence level
= difference between groups is significant at a 95% confidence level
Older investors in particular have a high understanding of the impact of inflation on their savings over time.

**Inflation**

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

[asked of all respondents; n=2,500]

- **Correct**
  - Less than today: 83%
  - More than today: 8%
  - Exactly the same as today: 3%
  - Don’t know: 6%

**Segmentation**

Those who were correct

- **Gender**
  - Men: 86%
  - Women: 79%

- **Age**
  - 18-34: 74%
  - 35-54: 78%
  - 55+: 92%

- **Asset Management**
  - Advisor: 83%
  - Robo-adviser: 73%
  - Self-directed investor: 87%

- **Cognitive Reflection**
  - Low: 74%
  - Medium: 90%
  - High: 95%

*_difference between groups is not significant at a 95% confidence level*

*_difference between groups is significant at a 95% confidence level*
This relationship is important for informed investing in bonds. Almost half (45%) of self-directed investors know the relationship between bonds and interest rates compared to 30% of investors with an advisor. Over 2-in-5 men (41%) answer correctly compared to only 27% of women.
Reducing risk through diversification is a core investing concept that the majority of investors know but arguably all investors should understand.

**Q**

**Diversification**

Buying a single company’s stock usually provides a safer return than a stock mutual fund.

[asked of all respondents; n=2,500]

- True: 10%
- Correct: 72%
- False: 18%
- Don’t know: 77%

**Segmentation**

*Those who were correct*

- Gender:
  - Men: 77%
  - Women: 66%

- Age:
  - 18-34: 70%
  - 35-54: 75%
  - 55+: 72%

- Asset Management:
  - Advisor: 70%
  - Robo-adviser: 71%
  - Self-directed investor: 79%

- Cognitive Reflection:
  - Low: 64%
  - Medium: 76%
  - High: 89%

* = difference between groups is not significant at a 95% confidence level
= difference between groups is significant at a 95% confidence level
While correct answers on this question were not correlated with age, gender, or working with an advisor, there was a positive correlation with cognitive reflection scores.

**Mortgage interest**
A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.

[asked of all respondents; n=2,500]
Mutual fund returns not guaranteed: Only 1/3 (34%) of investors knew that neither bond nor equity mutual funds pay a guaranteed rate of return.

The fact that mutual funds’ returns are not guaranteed and therefore, there is investment risk associated with such investments, is not well understood by the majority of respondents.

**Mutual fund returns not guaranteed**

Do equity or bond mutual funds pay a guaranteed rate of return?  
[asked of all respondents; n=2,500]

- **Equity mutual funds do**: 4%
- **Bond mutual funds do**: 20%
- **They both do**: 13%
- **Neither do**: 34%
- **Don’t know**: 30%

**Segmentation**

Those who were correct

- **Gender**
  - Men: 41%
  - Women: 26%

- **Age**
  - 18-34: 28%
  - 35-54: 31%
  - 55+: 40%

- **Asset Management**
  - Advisor: 32%
  - Robo-adviser: 26%
  - Self-directed investor: 43%

- **Cognitive Reflection**
  - Low: 27%
  - Medium: 38%
  - High: 45%

_difference between groups is not significant at a 95% confidence level_
Investment risk:
In general, investments that are riskier tend to provide higher returns over time than investments with less risk.
[asked of all respondents; n=2,500]

While the majority of investors understand the concept of investment risk, less than half of investors correctly ranked the relative risk of different investment products (see Slide 41).
Core Investing Principles & Concepts
Core Investing Principles & Concepts: The average investor answered half of these questions correctly

On the 6 new financial literacy questions developed for the survey to test core investing principles, investors best understood the relationship between investment time horizon and risk while their understanding of relative product risk, whether past performance is a good indicator of future returns, and leveraged investing was less than 50%.

The Core Investing Principles and Concepts index summarizes results for the 6 new financial literacy questions on the survey focused on investing principles and concepts.

On average, respondents answered 54% (3/6) principles & concepts questions correctly.

The scores for each question were:

- **Time horizon**: 74%
- **Safety of Canadian securities**: 60%
- **Break even calculation**: 54%
- **Past performance**: 47%
- **Products by risk**: 47%
- **Leveraged investing**: 43%

### Segmentation

<table>
<thead>
<tr>
<th>Category</th>
<th>Gender</th>
<th>Age</th>
<th>Asset Management</th>
<th>Cognitive Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Advisor</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>58%</td>
<td>49%</td>
<td>52%</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Robo-adviser</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>47%</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self-directed investor</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>72%</td>
</tr>
</tbody>
</table>

Difference between groups is **not** significant at a 95% confidence level

Difference between groups is **significant** at a 95% confidence level
Canadian Stocks Safer: Overall, 3-in-5 (60%) correctly stated that geographical diversification can reduce risk

This question saw more correct responses among self-directed investors (67%), investors over 55 (65%), and those with a medium or high cognitive reflection score (64% and 66% respectively).

**Safety of Canadian securities**
A portfolio made up of stocks from Canada is typically safer than a portfolio made up of stocks from around the world.

[asked of all respondents; n=2,500]

- **True**: 22%
- **False**: 60%
- **Don’t know**: 19%

Segmentation

**Those who were correct**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>62%</td>
</tr>
<tr>
<td>Women</td>
<td>57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>55%</td>
</tr>
<tr>
<td>35-54</td>
<td>58%</td>
</tr>
<tr>
<td>55+</td>
<td>65%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td>58%</td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>52%</td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>67%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>54%</td>
</tr>
<tr>
<td>Medium</td>
<td>64%</td>
</tr>
<tr>
<td>High</td>
<td>66%</td>
</tr>
</tbody>
</table>

- difference between groups is not significant at a 95% confidence level
- difference between groups is significant at a 95% confidence level
Forecasting: Less than half (47%) correctly stated that past performance is not a good predictor for future returns

This should be a truism but is not for almost half of retail investors. On this question there was a much higher proportion of correct responses among self-directed investors (59%) and those with a high cognitive reflection score (59%). Men also answered correctly 11-points more frequently than women (52% vs. 41%).

**Forecasting**
The past performance of an investment is a good indicator of future results.
[asked of all respondents; n=2,500]
Time Horizon: About 3-in-4 responded correctly identifying the relationship between investment time horizon and risk

Interestingly 20% of investors say you should never take risks with retirement savings. If unwilling to take any risk, investors may see only very modest growth of their retirement savings (before inflation) given low interest rates.

Q

When should you be willing to take the most investment risk with your retirement savings?

[asked of all respondents; n=2,500]

74% Correct

When you are young

2% When you are old

20% You should never take risks with your retirement savings

1% After I retire

3% Don’t know

Gender

Men: 77%

Women: 72%

Age

18-34: 71%

35-54: 78%

55+: 74%

Asset Management

Advisor: 76%

Robo-adviser: 65%

Self-directed investor: 74%

Cognitive Reflection

Low: 67%

Medium: 79%

High: 86%

* = difference between groups is not significant at a 95% confidence level

** = difference between groups is significant at a 95% confidence level
Leveraged Investing: 43% correctly responded to this question about leveraged investing

Monthly client debt margin accounts reached new highs in 2021, however, the fact that more than half of investors did not get this answer correct suggests that the math underlying borrowing to invest is difficult for many retail investors. There is a very strong relationship between correct responses to the leveraged investing question and cognitive reflection scores.

Leveraged Investing
You invest $500 of cash and borrow an additional $500 to buy $1,000 worth of stock. If the value of the stock drops by 50% and you sell it, approximately how much of your $500 in cash are you left with?
[asked of all respondents; n=2,500]

Segmentation
Those who were correct

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>47%</td>
</tr>
<tr>
<td>Women</td>
<td>39%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>47%</td>
</tr>
<tr>
<td>35-54</td>
<td>44%</td>
</tr>
<tr>
<td>55+</td>
<td>41%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td>40%</td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>37%</td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>53%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>28%</td>
</tr>
<tr>
<td>Medium</td>
<td>52%</td>
</tr>
<tr>
<td>High</td>
<td>71%</td>
</tr>
</tbody>
</table>
While the majority of investors were able to correctly answer a question on the relationship between investment risk and return (see Slide 34), almost half (47%) correctly used this concept to rank the riskiness of four different types of investments.
Break Even Calculation: About half (54%) answered correctly on this question about making back a loss

If an investor’s investments are volatile, understanding information about percentage gains and losses to make informed decisions is valuable. On this question, women answer correctly much less frequently than men (43% versus 62%) and those with high cognitive reflection scores answer correctly more than twice as often as those with low scores (85% vs. 35%).

Break even calculation
If you invest $1,000 in a stock and its price declines 50%, how much does the price need to go up for you to break even on the investment?
[asked of all respondents; n=2,500]
Investment Costs
**Investment Costs: Performance on investment costs questions were the lowest (36%) compared to other questions sets**

Most investors can correctly answer a question about whether fees are linked to returns. However, for all other investment cost questions, no more than 35% of investors answer correctly. Self-directed investors know more than advised investors, and the results are positively correlated with the cognitive reflection test.

The Investment Costs index summarizes results for the 6 new financial literacy questions on the survey focused on investing costs.

![Investment Costs graph]

On average, respondents answered 36% (2/6) investment costs questions correctly.

The scores for each question were:

- **Link between fees & returns**: 76%
- **MER Impact**: 35%
- **Index funds**: 31%
- **No-load mutual funds**: 27%
- **Products with MERs**: 23%
- **Advisor costs**: 22%

### Segmentation

**Investment costs score in % of correct responses**

- **Gender**
  - Men: 41%
  - Women: 29%

- **Age**
  - 18-34: 37%
  - 35-54: 35%
  - 55+: 36%

- **Asset Management**
  - Advisor: 32%
  - Robo-adviser: 35%
  - Self-directed investor: 44%

- **Cognitive Reflection**
  - Low: 30%
  - Medium: 39%
  - High: 47%
Indexed investing is not well understood amongst investors with only one-third (31%) identifying the key advantage of indexed investing.

**Index Funds:** 40% of men correctly identified fees as the main advantage of index funds, compared to only 20% women.

What is the main advantage that index funds have when compared to actively managed funds?

[asked of all respondents; n=2,500]

- Index funds are generally less risky in the short term: 13%
- Index funds generally have lower fees and expenses: 31%
- Index funds are generally less likely to decline in value: 10%
- Don’t know: 46%

**Segmentation**

**Gender**
- Men: 40%
- Women: 20%

**Age**
- 18-34: 41%
- 35-54: 33%
- 55+: 23%

**Asset Management**
- Advisor: 24%
- Robo-adviser: 37%
- Self-directed investor: 43%

**Cognitive Reflection**
- Low: 23%
- Medium: 35%
- High: 47%

* = difference between groups is not significant at a 95% confidence level
= difference between groups is significant at a 95% confidence level
Products with MERs: Only 23% correctly stated that individual stocks do not have management fees while mutual funds and ETFs do.

Responses indicate that many investors have a poor understanding of what products do and do not have MERs.

**Products with MERs**
Individual stocks, mutual funds and exchange traded funds (ETFs) all have management fees (also known as MERs) that reduce investors’ returns.

[asked of all respondents; n=2,500]

- **True** 62%
- **False** 23%
- Don’t know 15%

**Segmentation**
Those who were correct

- **Gender**
  - Men 27%
  - Women 19%

- **Age**
  - 18-34 30%
  - 35-54 21%
  - 55+ 21%

- **Asset Management**
  - Advisor 17%
  - Robo-adviser 24%
  - Self-directed investor 38%

- **Cognitive Reflection**
  - Low 17%
  - Medium 26%
  - High 37%

*difference between groups is not significant at a 95% confidence level*

* = difference between groups is significant at a 95% confidence level*
No-load Mutual Fund: Just 1-in-4 (27%) were able to correctly define a no-load mutual fund: almost half say they don’t know

Responses indicate that many investors do not understand this term used in the mutual fund industry by some companies.

**No-load mutual funds**
A no-load mutual fund charge is one that...
[asked of all respondents; n=2,500]

<table>
<thead>
<tr>
<th>Feature</th>
<th>Correct</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carries no fees</td>
<td>18%</td>
<td>46%</td>
</tr>
<tr>
<td>Carries no sales charge</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Does not contain high-risk securities</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Has no limits on the period of time in which it can be bought or sold</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>46%</td>
<td></td>
</tr>
</tbody>
</table>

Responses indicate that many investors do not understand this term used in the mutual fund industry by some companies.

![Segmentation graph](image-url)

- **Gender**
  - Men: 32%
  - Women: 21%

- **Age**
  - 18-34: 26%
  - 35-54: 26%
  - 55+: 29%

- **Asset Management**
  - Advisor: 25%
  - Robo-adviser: 26%
  - Self-directed investor: 32%

- **Cognitive Reflection**
  - Low: 23%
  - Medium: 30%
  - High: 34%

* = difference between groups **is not** significant at a 95% confidence level
= difference between groups **is** significant at a 95% confidence level
Fees Linked To Returns: Majority (76%) knew that, generally, advisors’ fees are not linked to account performance

Nearly all client accounts are not performance based but almost a quarter (24%) of respondents either didn’t know (10%) or thought they were (14%).

**Link between fees and returns**
Investment advisers will not make money if your investment account doesn’t make money.
[asked of all respondents; n=2,500]

- **True**: 14%
- **False**: 76%
- **Don’t know**: 10%

**Segmentation**
*Those who were correct*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men</th>
<th>80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>72%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>18-34</th>
<th>66%</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-54</td>
<td>74%</td>
<td></td>
</tr>
<tr>
<td>55+</td>
<td>85%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Advisor</th>
<th>76%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robo-adviser</td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>81%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th>Low</th>
<th>68%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>86%</td>
</tr>
</tbody>
</table>

*difference between groups is not significant at a 95% confidence level
*difference between groups is significant at a 95% confidence level*
Advisor Costs: Over half (56%) believed it is possible to get advice “without it costing you anything”; 1-in-5 (22%) correctly stated “False”.

The term “indirect” appears not to be well understood leading to a poor understanding by many of the fees they are incurring albeit “indirectly” to their advisor and dealer.
MER’s Impact on Returns: About a third correctly identified the compounding impact of fees over time (35%)

Combining across responses, one-third give an incorrect answer (31%) and one-third say they don’t know (33%). Correct responses are highest among those with high cognitive reflection (58%). Women (26%) answer correctly less frequently than men (42%).

MER Impact
You have the choice between two mutual funds that have a total annual return of 5% before paying fees. Fund A has a MER (management expense ratio) of 1% and Fund B has a MER of 2%. If you invest $100,000 in Fund A and hold it for 20 years you will have at least...

[asked of all respondents; n=2,500]

- 1 percent more than if you invested in Fund B: 19%
- 1 percent less than if you invested in Fund B: 8%
- 10 percent more than if you invested in Fund B: 35%
- 10 percent less than if you invested in Fund B: 5%
- Don’t know: 33%

Segmentation:
Those who were correct

- Gender
  - Men: 42%
  - Women: 26%

- Age
  - 18-34: 37%
  - 35-54: 33%
  - 55+: 34%

- Asset Management
  - Advisor: 30%
  - Robo-adviser: 35%
  - Self-directed investor: 44%

- Cognitive Reflection
  - Low: 23%
  - Medium: 41%
  - High: 58%

* = difference between groups is not significant at a 95% confidence level
= difference between groups is significant at a 95% confidence level
Registered Accounts
Most retail investors have a good understanding of the tax deferral benefits of holding investments in a RRSP.

**RRSP:** 4-in-5 (81%) knew that RRSPs defer tax until the funds are withdrawn; lowest among those who use robo-adviser (67%).

**Q: If you earn $5,000 on the investments in your RRSP, when will you pay taxes on these earnings?**

- **The year that you earn that $5,000:** 5%
- **The earnings are never taxed:** 7%
- **When you take the money out of your RRSP or RRIF:** 81%
- **When you convert the RRSP into a RRIF:** 3%
- **Don’t know:** 5%

**Segmentation: Those who were correct**

- **Gender:**
  - Men: 81%
  - Women: 81%
- **Age:**
  - 18-34: 71%
  - 35-54: 79%
  - 55+: 89%
- **Asset Management:**
  - Advisor: 84%
  - Robo-adviser: 67%
  - Self-directed investor: 82%
- **Cognitive Reflection:**
  - Low: 76%
  - Medium: 85%
  - High: 87%

*Note: difference between groups is not significant at a 95% confidence level; difference between groups is significant at a 95% confidence level.*
TFSA: Almost 9-in-10 (89%) knew that withdrawing money from a TFSA is best for an emergency expense

Unlike an RRSP, withdrawing money from a TFSA is preferable to withdrawing from an RRSP for an emergency expense because it doesn’t result in tax consequences. Nearly all investors know this, highest among those with high cognitive reflection scores (95%) and lowest among those working with a robo-adviser (81%).

Q
TFSA
You are making contributions to an RRSP and a TFSA. If you have an emergency $5,000 expense, which account should you take the money from?
[asked of all respondents; n=2,500]
RESP: Over half (55%) of investors have at least a “medium” knowledge of RESPs

This question was challenging as few retail investors will save for their children in both RESP accounts at financial institutions as well as scholarship plan dealers and not all retail investors have children and use this account type. However, those considering opening a RESP should know this information before making an investment decision.

**RESP Knowledge level**
- High (if select 6-7): 9%
- Medium (if select 3-5): 46%
- Low (if select 1-2): 23%
- Don't know: 22%

**RESP Question Scoring:**
For the index measures, respondents were awarded part marks for each correct response selected. The average respondent received 0.38 points (out of a total of 1). Only 4% correctly selected all 7 responses.

### Differentiation
- **Gender:**
  - Men: 55%  
  - Women: 55%

- **Age:**
  - 18-34: 51%  
  - 35-54: 58%  
  - 55+: 56%

- **Asset Management:**
  - Advisor: 55%  
  - Robo-adviser: 51%  
  - Self-directed investor: 57%

- **Cognitive Reflection:**
  - Low: 46%  
  - Medium: 61%  
  - High: 69%
Protecting Your Portfolio
For two of the five questions ("Internal complaint handling" and "Registration check") about two-thirds of investors knew the correct answer. However, for the other 3, no more than 35% were able to answer correctly.

The Protecting Your Portfolio index summarizes results for the 5 new financial literacy questions on the survey focused on awareness and understanding of investor protections.

On average, respondents answered 44% (2/5) portfolio questions correctly.

The scores for each question were:

- Internal Complaint Handling: 69%
- Checking registration: 66%
- Firm transfers: 35%
- External Complaint Handling: 32%
- Abnormal returns: 20%

Gender:
- Men: 45%
- Women: 44%

Age:
- 18-34: 39%
- 35-54: 44%
- 55+: 49%

Asset Management:
- Advisor: 44%
- Robo-adviser: 38%
- Self-directed investor: 47%

Cognitive Reflection:
- Low: 41%
- Medium: 47%
- High: 48%
Abnormal Returns: 1-in-5 (20%) avoided the fund with abnormal returns, and 6% said ‘Don’t know’

Abnormal returns (a warning sign for investment fraud)
The chart shows the performance of 3 stock mutual funds over the last 5 years. For your reference, there is also a stock market index that shows the performance of the overall stock market for the last 5 years. Which of these funds would you choose to invest in?
[asked of all respondents; n=2,500]

- Fund A: 17%
- Fund B: 74%
- Fund C: 3%
- Don’t know: 6%

Fund B is the incorrect response because it shows abnormally consistent returns. This is a warning sign of fraud. A majority (74%) do not recognize the potential fraudulent nature of the returns and select Fund B. Correct responses are highest among 18-34-year-old investors, and – unlike most other questions – are lower among those with higher cognitive reflection scores.
Firm Transfer Notice: Only 1-in-3 (35%) correctly identified that you do not need to provide notice to move to a new firm

More investors said they ‘Don’t know’ (42%) than gave an incorrect response (23%). Respondents under 35 were less likely to answer correctly (26%) and investors who use a robo-advisor (20%) answered correctly less often than self-directed investors (40%) and those with advisors (36%).

Firm transfers

To move your investments from your current firm to a new firm, how much notice do you need to give your current firm that you are leaving?

[asked of all respondents; n=2,500]

Segmentation

Those who were correct

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men</th>
<th>Women</th>
<th>36%</th>
<th>34%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18-34</td>
<td>26%</td>
<td>35-54</td>
<td>33%</td>
</tr>
<tr>
<td>Asset Management</td>
<td>Advisor</td>
<td>36%</td>
<td>Robo-adviser</td>
<td>20%</td>
</tr>
<tr>
<td>Cognitive Reflection</td>
<td>Low</td>
<td>30%</td>
<td>Medium</td>
<td>40%</td>
</tr>
</tbody>
</table>
Registration Check: Respondents over 55 were correct most often (76%), while investors aged 18-34 were correct least often (54%).

Checking registration to ensure that the person is legitimately offering an investment is a key method to avoid being defrauded but only two-thirds of investors correctly know to do this.

Checking registration
If someone approaches you with an investment opportunity, how can you make sure that they are qualified to do so?
[asked of all respondents; n=2,500]

Correct
Check their registration by contacting your provincial securities regulator 66%
Examine their title such as wealth manager, investment professional or financial planner 10%
Look at their firm's website or call their firm 10%
Ask others who have invested in it through that person 2%
Search on google or social media to find articles or posts about the individual 2%
Don't know 11%

Segmentation
Those who were correct

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>64%</td>
</tr>
<tr>
<td>Women</td>
<td>68%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>54%</td>
</tr>
<tr>
<td>35-54</td>
<td>62%</td>
</tr>
<tr>
<td>55+</td>
<td>76%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td>68%</td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>56%</td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>66%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>60%</td>
</tr>
<tr>
<td>Medium</td>
<td>69%</td>
</tr>
<tr>
<td>High</td>
<td>75%</td>
</tr>
</tbody>
</table>
Internal Complaint Handling: 7-in-10 (69%) correctly stated that if unsatisfied they would make a formal complaint to their firm.

The majority of retail investors are aware of the need to complain to their firm when they have a complaint – the internal complaint handling process. 2-in-10 (19%) are unaware of this step, as they believe the complainant would need to contact the Better Business Bureau.

**Q**

One day Namita checks her account statement and sees that several of her investments have been sold and new investments have been bought without her knowledge or authorization. Her advisor’s explanation for this unauthorized trading was unsatisfactory. What should Namita do?

*asked of all respondents; n=2,500*

Correct

- **Make a formal complaint to her investment firm**: 69%
- **Sell her investments and move the cash to a bank account**: 2%
- **Contact the Better Business Bureau**: 19%
- **Wait to see how the new investments perform**: 4%
- **Don’t know**: 6%

**Segmentation**

Those who were correct

<table>
<thead>
<tr>
<th>Gender</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>71%</td>
</tr>
<tr>
<td>Women</td>
<td>67%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>60%</td>
</tr>
<tr>
<td>35-54</td>
<td>71%</td>
</tr>
<tr>
<td>55+</td>
<td>75%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor</td>
<td>69%</td>
</tr>
<tr>
<td>Robo-adviser</td>
<td>63%</td>
</tr>
<tr>
<td>Self-directed investor</td>
<td>74%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Reflection</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>65%</td>
</tr>
<tr>
<td>Medium</td>
<td>72%</td>
</tr>
<tr>
<td>High</td>
<td>76%</td>
</tr>
</tbody>
</table>
Namita decided to make a formal complaint to her investment firm after realizing that she lost money due to the unauthorized trading. The firm denied her request to compensate her for the losses. Her options are:

**Please select all that apply.**
(asked of all respondents; n=2,500)

- **File a lawsuit against the firm and advisor** 33%
- **Make a complaint to the Ombudsman for Banking Services and Investments (OBSI)** 51%
- **Complain about the firm and advisor to the provincial securities regulator and/or self-regulatory organization (IIROC)** 62%
- **Start an arbitration through IIROC’s Arbitration Program** 30%
- **Complain about the firm and advisor to the Canada Revenue Agency (CRA)** 17%
- **Don’t know** 15%

**Complaint process Knowledge level**
- High (if select 4) 7%
- Medium (if select 2-3) 26%
- Low (if select 1) 35%
- Incorrect (selected CRA) 17%
- Don’t know 15%

**Complaint Process Question Scoring:**
For the index measures, respondents were awarded part marks for each correct response selected (0.25 out of 1), unless they also selected the incorrect response of CRA, in which case they got 0. The average respondent received 0.32 points (out of a total of 1). Only 7% correctly selected all 4 responses without also selecting the CRA.

**Segmentation**
% receiving at least a “Medium” Score

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>35%</td>
</tr>
<tr>
<td>Women</td>
<td>31%</td>
</tr>
</tbody>
</table>

**Age**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>35-54</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>55+</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

**Asset Management**

<table>
<thead>
<tr>
<th>Advisor</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-directed investor</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

**Cognitive Reflection**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>44%</td>
<td></td>
</tr>
</tbody>
</table>
Cognitive Reflection Test: 
Detailed Results

The “Cognitive Reflection Test” is a validated and efficient way to assessing Cognitive Reflection in a survey. The purpose of including this measure was to explore the relationship between investing knowledge and cognitive reflection more generally.

This Cognitive Reflection Test (CRT) measures Cognitive Reflection – specifically the ability to suppress an incorrect, intuitive answer and take time to arrive at a more deliberate, correct answer.

1. A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does the ball cost? [asked of all respondents; n=2,500]
   - Correct: 5 cents
   - Wrong
   - 23% Correct, 77% Wrong

2. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? [asked of all respondents; n=2,500]
   - Correct: 5 mins
   - Wrong
   - 39% Correct, 61% Wrong

3. In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? [asked of all respondents; n=2,500]
   - Correct: 47 days
   - Wrong
   - 37% Correct, 63% Wrong

Cognitive Reflection:
- High: 14%
- Medium: 40%
- Low: 47%

Note: Cognitive Reflection is grouped into three categories: High 3/3, Medium 1-2/3; Low 0/3.
The results show that cognitive reflection is correlated with the index overall, and with each component. The weakest correlation is on knowledge about investor protection – which increases only 7 points (from 39% to 46%) as cognitive reflection increases. The largest difference is on the new core investing principles and concepts questions, where the score increases 28 points (from 44% to 72%) as cognitive reflection increases.

<table>
<thead>
<tr>
<th>% of correct answers</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>47%</td>
<td>58%</td>
<td>64%</td>
</tr>
<tr>
<td><strong>OECD Core Questions</strong></td>
<td>62%</td>
<td>72%</td>
<td>78%</td>
</tr>
<tr>
<td><strong>Core Investing Principles &amp; Concepts</strong></td>
<td>44%</td>
<td>61%</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Investment Costs</strong></td>
<td>30%</td>
<td>39%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Registered Accounts</strong></td>
<td>65%</td>
<td>73%</td>
<td>76%</td>
</tr>
<tr>
<td><strong>Protecting Your Portfolio</strong></td>
<td>39%</td>
<td>44%</td>
<td>46%</td>
</tr>
</tbody>
</table>
Sample Profile

**Demographics and Finances**

Throughout the report, results are broken out by investor’s age, gender, and their approach to investing. The full demographic and financial profile of investors in the survey sample is summarized in the following section.
Regional groupings include:

- British Columbia (Yukon)
- Alberta (Northwest Territories)
- Prairie Region (Manitoba, Saskatchewan and Nunavut)
- Ontario
- Quebec
- Atlantic (PEI; New Brunswick; Nova Scotia and Newfoundland & Labrador)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>BC</th>
<th>AB</th>
<th>Prairies</th>
<th>Ontario</th>
<th>Quebec</th>
<th>Atlantic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unweighted (n)</td>
<td>2,591</td>
<td>362</td>
<td>296</td>
<td>158</td>
<td>975</td>
<td>644</td>
<td>156</td>
</tr>
<tr>
<td>Unweighted (%)</td>
<td>100%</td>
<td>14.0%</td>
<td>11.4%</td>
<td>6.1%</td>
<td>37.6%</td>
<td>24.9%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Weighted (n)</td>
<td>2,500</td>
<td>362</td>
<td>229</td>
<td>163</td>
<td>949</td>
<td>657</td>
<td>140</td>
</tr>
<tr>
<td>Weighted (%)</td>
<td>100%</td>
<td>14.5%</td>
<td>9.2%</td>
<td>6.5%</td>
<td>38.0%</td>
<td>26.3%</td>
<td>5.6%</td>
</tr>
</tbody>
</table>
Demographics

Gender & Age

- Men: 56%
- Women: 44%

Household Income

- <$50K: 16%
- $50K <$100K: 39%
- $100K+: 38%

Marital Status

- Single: 24%
- Married: 51%
- Common law: 15%
- Separated: 2%
- Divorced: 5%
- Widowed: 3%

Education

- High school or less: 17%
- College: 38%
- University: 45%

Employment

- Employed full-time: 51%
- Employed part-time: 6%
- Self-employed: 6%
- Seasonal/Contract employment: 1%
- Retired: 26%
- Unemployed: 2%
- Disability/sick/parental leave: 2%
- Homemaker/Student: 6%

Note: “Don’t know” and “Prefer not to say” not shown.
Financial Profile: The majority (60%) have investment advisors; Almost 7-in-10 (67%) invested in mutual funds, followed by pension plan (43%).

Investment Products
- Mutual funds: 67%
- Pension plan: 43%
- Stocks: 42%
- GICs/Term deposits: 29%
- ETFs: 27%
- Bonds: 11%
- Private equity investments: 10%
- REITs: 10%
- Other securities: 9%
- Canada Savings Bonds: 8%
- Other: 5%

Investable Assets
- Less than $10,000: 9%
- $10,000 to less than $25,000: 9%
- $25,000 to less than $50,000: 10%
- $50,000 to less than $100,000: 16%
- $100,000 to less than $250,000: 23%
- $250,000 to less than $500,000: 16%
- $500,000 to less than $1,000,000: 10%
- $1,000,000 or more: 6%

Investor Type
- Adviser/Portfolio manager: 60%
- Online investment adviser/robo-adviser: 13%
- DIY Investor: 27%

*See questionnaire for complete question wording*
Survey Methodology
Survey Methodology

This study is based on an INNOVATIVE online survey of 2,591 Canadians.

**Method:** This online survey was conducted using Lucid, a leading provider of online sample. Each survey is administered to a series of randomly selected samples from the panel and weighted to ensure that the overall sample’s composition reflects that of the actual Canadian population according to Census data to provide results that are intended to approximate a probability sample.

**Sample Size:** n=2,591. Weighted to a representative sample of n=2,500 overall.

**Field Dates:** September 27 to October 4, 2021

**Weighting:** The survey was weighted by age, gender, education, province, and provincial sub-region for all Canadians based on Statistics Canada Census data. Additionally, respondents were further weighted by investable assets level according Statistics Canada’s Survey of Financial Security.

**Margin of Error:** This is a representative sample. However, traditional margin of error calculations do not apply to most online panels.

<table>
<thead>
<tr>
<th>Type</th>
<th>Unweighted N</th>
<th>Unweighted %</th>
<th>Weighted N</th>
<th>Weighted %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men 18-34</td>
<td>419</td>
<td>16.2%</td>
<td>440</td>
<td>17.6%</td>
</tr>
<tr>
<td>Men 35-54</td>
<td>489</td>
<td>18.9%</td>
<td>406</td>
<td>16.2%</td>
</tr>
<tr>
<td>Men 55+</td>
<td>512</td>
<td>19.8%</td>
<td>562</td>
<td>22.5%</td>
</tr>
<tr>
<td>Women 18-34</td>
<td>375</td>
<td>14.5%</td>
<td>260</td>
<td>10.4%</td>
</tr>
<tr>
<td>Women 35-54</td>
<td>351</td>
<td>13.6%</td>
<td>301</td>
<td>12.0%</td>
</tr>
<tr>
<td>Women 55+</td>
<td>441</td>
<td>17.0%</td>
<td>532</td>
<td>21.3%</td>
</tr>
<tr>
<td>Alberta</td>
<td>294</td>
<td>11.3%</td>
<td>227</td>
<td>9.1%</td>
</tr>
<tr>
<td>British Columbia</td>
<td>362</td>
<td>14.0%</td>
<td>362</td>
<td>14.5%</td>
</tr>
<tr>
<td>Manitoba</td>
<td>84</td>
<td>3.2%</td>
<td>78</td>
<td>3.1%</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>42</td>
<td>1.6%</td>
<td>46</td>
<td>1.8%</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>30</td>
<td>1.2%</td>
<td>20</td>
<td>0.8%</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>74</td>
<td>2.9%</td>
<td>68</td>
<td>2.7%</td>
</tr>
<tr>
<td>Ontario</td>
<td>975</td>
<td>37.6%</td>
<td>949</td>
<td>38.0%</td>
</tr>
<tr>
<td>Quebec</td>
<td>644</td>
<td>24.9%</td>
<td>657</td>
<td>26.3%</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>10</td>
<td>0.4%</td>
<td>6</td>
<td>0.3%</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>74</td>
<td>2.9%</td>
<td>84</td>
<td>3.4%</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>2</td>
<td>0.1%</td>
<td>2</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

**Note:** Graphs may not always total 100% due to rounding values rather than any error in data. Sums are added before rounding numbers.
For more information, please contact:

**Ontario Securities Commission:**

**Tyler Fleming**  
Director, Investor Office  
416-593-8092  
tfleming@osc.gov.on.ca

**Marian Passmore**  
Senior Advisor, Investor Experience  
416-593-2154  
mpassmore@osc.gov.on.ca

**Matthew Kan**  
Senior Advisor, Behavioural Insights  
416-597-7233  
mkan@osc.gov.on.ca

**INNOVATIVE Research Group:**

**Colin Whelan**  
Vice President  
(604) 379-8338  
cwhelan@innovativeresearch.ca

**Jason Lockhart**  
Vice President  
(416) 642-7177  
jlockhart@innovativeresearch.ca

**Report Contributors:**  
Angus Lockhart, Consultant  
Alison Gui, Analyst  
Mahmood Ghazizadeh, Analyst