

Current Practices for Risk Profiling in Canada And Review of Global Best Practices

Prepared for the
Investor Advisory Panel of the
Ontario Securities Commission



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This research was undertaken by PlanPlus Inc on behalf of the Investor Advisory Panel, an independent committee of the Ontario Securities Commission. All data collected for this project is confidential and will be held by PlanPlus for a period of one year and will then be destroyed. The underlying data has not been provided to the OSC or any parties outside the immediate research team. PlanPlus assumes responsibility for any errors and omissions in this report and thanks the authors of this study for their diligence and efforts to cover a broad and dynamic topic within a limited time and scope of engagement.

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1.0 Introduction

1.1 Executive Summary

- Risk profiling is a complex, multi-dimensional process that combines many factors, both subjective and objective, to try and arrive at an overall assessment of the most appropriate level of risk for a consumer, called a ‘risk profile’.
- Most of the contributing sub-factors that can influence a risk profile are understood, but this determination of sub-factors has only been clarified over the past few years. The evolving understanding has resulted in widespread conflicting use of terms by every stakeholder – regulators, advisors, solution providers and academics.
- Almost all regulators are principles-based and provide little guidance on how a firm or advisor should arrive at the determination of a risk profile. They all recognize and rely on professional judgment of the advisor and the ‘process’ created by the advisor or firm to determine a consumer’s risk profile.
- There are verified techniques using psychometrics that improve the measurement of some subjective or emotional factors like risk tolerance or loss aversion, but they are rarely used by the industry.
- There is little or no academic guidance on the most effective methodology for combining subjective and objective factors (as opposed to measuring these sub-factors) to arrive at the overall risk profile.
- Risk questionnaires are most widely used in retail channels using mutual funds and less so in wealth management and portfolio manager channels.
- Over 53% of respondents to an advisor survey indicated that between 76% and 100% of clients had completed a risk questionnaire, creating a strong dependency on the fitness of these tools.
- About 48% of firms answering a survey indicated risk questionnaires were developed in-house and another 36% said that advisors could chose their own risk profiling methodology. Only 11% of firms could confirm that their questionnaires (where they had one) were ‘validated’ in some manner.
- 16.7% of questionnaires reviewed would be considered ‘fit for purpose’:

- 27.8% had poorly worded questions that combine multiple factors in one question, or had questions that were confusing or logically inconsistent.
- 75% had scoring models that had arbitrary weightings of questions, that merged multiple factors without clarity, or that weighted a specific factor (like age) heavily. Fewer than 6% used known techniques like psychometrics to measure subjective sub-factors.
- 55.6% had no mechanism to recognize risk-averse consumers who should remain only in cash or cash equivalents.
- 64% of questionnaires exhibited two or more of these three problems: poorly worded questions, poor scoring models or no ability to handle risk-averse clients. Another 19% suffered from at least one of these problems.
- Only one questionnaire had a formal mechanism to allow and document changes based on professional judgment of the advisor.

1.2 Project Background

In March 2015, PlanPlus Inc. was engaged by the Investor Advisory Panel of the Ontario Securities Commission (OSC) to perform research into the current practices in the Canadian marketplace to determine a client’s risk profile and to evaluate these practices compared to best practices globally. The research focused on the practices of investment advisors and firms, including those licenced and operating under the Mutual Fund Dealers Association of Canada (MFDA), Investment Industry Regulatory Organization of Canada (IIROC) and Portfolio Managers (PMs). It did not include self-assessment tools or practices of advisors operating under an insurance licence. This report is a summary of the outcomes of that research.

Special thanks go to the research team who worked to make this project a success. More detailed biographies can be found in Appendix D. The project was divided into four primary sections along with final summary and recommendations.

- Shawn Brayman – acted as *the project lead* and was active in all aspects of the project.

- Dr. Michael Finke – *reviewed the academic literature* related to risk profiling – what we measure, how we measure it and how well it works. Gaps where research has yet to shed light on aspects of the process were highlighted.
- Ellen Bessner – helped perform a high level *review of regulations* from several countries and highlighted common themes or potential best practices evident in other jurisdictions. Shawn Brayman assisted with interviews of the regulators and other stakeholders.
- Dr. John Grable – reviewed several of the *leading consulting firms and solution providers* to determine common best practices or observable challenges in approaches.
- Dr. Paul Griffin – assisted with the review of *current practices in Canada* and provided academic oversight for our research student. Shawn Brayman assisted with the development of surveys and review of questionnaires.
- Rebecca Clement – performed the role of research student on the project for the summer of 2015 and was active in all aspects of the project.

1.3 Additional Acknowledgements

PlanPlus would like to extend our sincere thanks to a variety of organizations and individuals that helped us to achieve the objectives of this project:

- Ontario Securities Commission – Investor Advisory Panel (OSC-IAP). Aside from their confidence in selecting us for this project, members of the IAP provided guidance and feedback throughout the project, including introductions to key stakeholders. OSC-IAP provided PlanPlus with complete independence to complete this research as we felt appropriate.
- The Business School at Humber College along with their Placement Centre and the Applied Research Office – for providing funding and academic guidance to our research student, Rebecca Clement, whose diligence and persistence were critical to the project.
- Representatives from regulators and associated stakeholders from Canada including MFDA, IIROC, Investment Funds Institute of Canada (IFIC), Investment Industry Association of Canada (IIAC), and the Ombudsman for Banking Services and Investments (OBSI)
- International regulators from Financial Industry Regulatory Authority in the USA (FINRA), Financial Conduct Authority (FCA) from the United Kingdom, Australia Securities and Investment Commission (ASIC), Securities Commission Malaysia (SC) and European Securities

and Markets Authority (ESMA) who participated in interviews and provided direction to us on specific regulations and guidance papers in their respective jurisdictions. For a complete list and full names of these organizations and their representatives see Appendix A.

- Financial Planning Standards Council (FPSC), Canadian Institute of Financial Planners (CIFP), IFIC, IIAC, MFDA, IIROC and National Bank Correspondent Network (NBCN) for distribution of surveys to firms and individual advisors across Canada.
- The representatives from a number of the leading solution providers and consultants in this domain including FinaMetrica, Oxford Risk, Riskalyze, Morningstar, Mercer and Ernst & Young (see Appendix G for a list of firms and representatives)
- The firms and advisors that completed the surveys.
- Kira Brayman, Oxford University for general editorial assistance.
- Other individuals who provided guidance and direction at different times to help us connect with proper contacts at firms and regulators.

2.0 Definition of Risk Terms

The first issue faced in the project was the confusion of terms. Is risk tolerance the same as ‘risk profile’? Does it include sub-factors like capacity and perception? The inconsistency of terminology was evident with every stakeholder – regulators, solution providers, academics, advisors and firms, all of whom used many terms interchangeably or combined multiple sub-factors into a single term. This is not surprising since the understanding of contributing factors in this field has and continues to change dramatically.

The scope of this project was to look at the process up to and including the determination of a client’s ‘risk profile’. We did not examine the methods by which the risk profile is then used to map to suitable types of portfolios or products, or how products are risk rated.

We reviewed the definition of major terms used in the area of risk profiling to ensure consistency of use and understanding in this report.

To establish a definition of terms we relied heavily on Nobre and Grable’s (2015) “The Role of Risk Profiles and Risk Tolerance in Shaping Client Investment Decisions”. We have provided additional clarity on some of the definitions where appropriate.

- Risk Tolerance: The willingness of the client to take on risk. It can be defined through their attitude towards risk and is often described as a high/low risk tolerance.
- Risk Aversion: The disinclination or dislike a client has towards risk. A risk-averse individual is unlikely to engage in any risky behaviour as it makes them uneasy. Risk aversion is the flip side of the ‘risk tolerance’ coin.
- Risk Capacity: The financial ability of a client to endure any potential financial loss. Does the client have the financial ability and can they afford to take on the risk?
- Risk Need: Refers to the amount of risk that should be expected in order for a client to meet specific financial goals. Larger goals may require higher returns on investment that comes at the cost of higher risk.

- Loss Tolerance/Loss Aversion: Relates to prospect theory and the fact that people weigh losing money more than making money. They may tolerate the swings in the market (risk tolerance) so long as they remain above a ‘reference point’, but if the market drops below this point they may become upset.
- Risk Composure: This is the likelihood that in a perceived crisis the client will behave fundamentally different to their rational self and may take action that could crystalize losses. It can be measured based on a client’s past decisions.
- Risk Perception: A judgment that the client feels towards the severity of risk in association with the broader economic environment. This perception can be heavily influenced by the media and/or through lack of understanding of the risks. The influence of ‘risk perception’ and ambiguity aversion may be reduced by greater financial literacy, education or experience.
- Risk Preference: A client uses a combination of subjective and objective cognitive evaluations to generate his/her ‘risk preference’. There may not always be justification for the individual’s feelings regarding their preferences.
- Risk Profile: The aggregate of all of these factors to arrive at an overall determination of a ‘sweet spot’ for a client, such that it maximizes their ability to achieve their goals but is consistent with the level of risk they are willing and can afford to take.

We recommend that ‘risk perception’ be considered as two separate components – ‘risk perception’ and ‘opportunity or product risk perception’. A risk profile is an aggregation of factors independent of and prior to the recommendation of product solutions. A set of conditions could lead to a ‘perception’ that one particular type of investment is better and/or worse at a particular point in time, independent of a client’s risk profile. Opportunity risk perception could be positive for some investments (i.e. domestic equities) and negative for other investments (i.e. emerging market equity) at the same time. The impact of this factor can only manifest after the risk profile has been determined, at the stage the client is considering specific product recommendations.

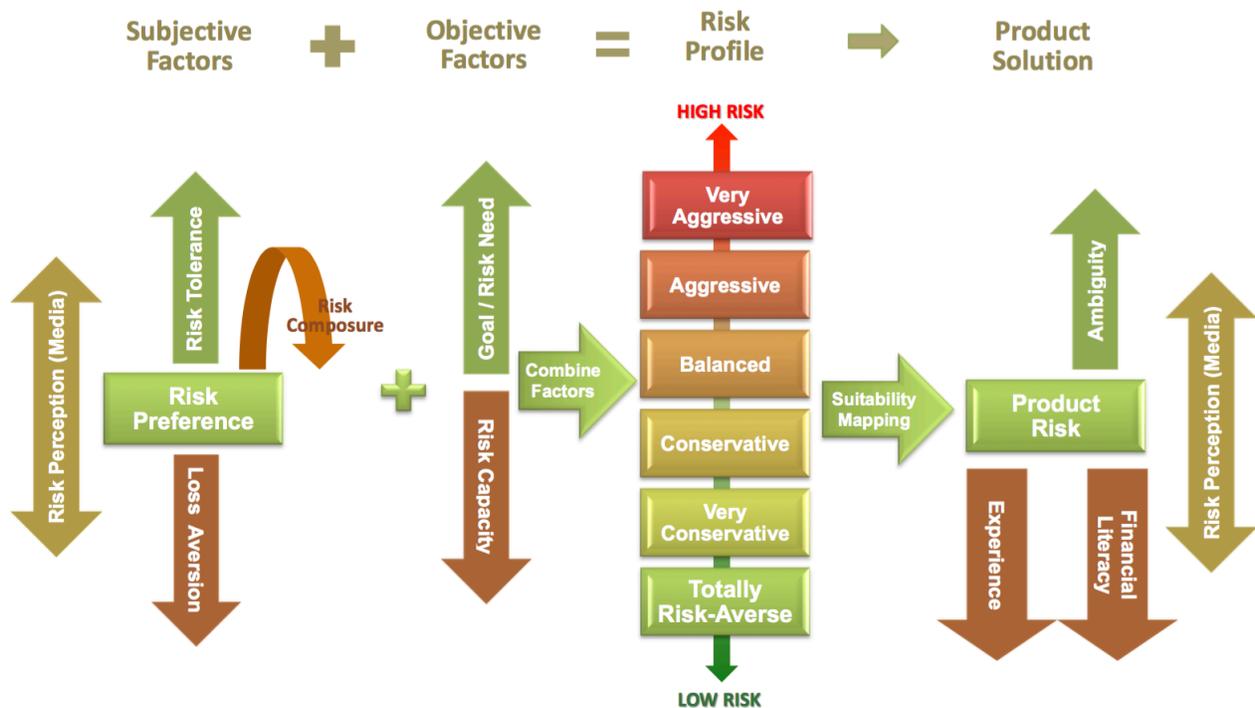


Figure 1: Visual Summary of Risk Concepts

As outlined above, there are a wide variety of factors that go into determination of a client’s risk profile, selecting products that are suitable and that the client will ‘stick with’ in times of financial crisis. Based on the academic definitions, we have tried to illustrate the various factors, why they are important individually and how they relate.

Subjective or Emotional Factors

- ‘Risk preference’ is the client’s ‘gut feeling’ towards or against taking a specific risk. In some respects it may be our “starting point”.
- The larger the client’s ‘risk tolerance’ the better the client will cope with swings in the markets and the more volatility they should be able to handle.
- Loss tolerance or aversion is not the swings in the market but rather the concern of ‘how low is too low?’ If the market goes up and down but remains above their ‘reference point’ (a value the client has created emotionally) they may be OK, but if the same swings take them below their reference point they may react badly. This concern is a downward pressure.
- Risk perception is a bit of a wild card, often driven by the media, and can increase or decrease how risky we consider the world at some point in time. The media could have headlines like ‘the

TSX is set to rise based on Canada's economic growth', which can influence people to believing that investments are less risky than before, or the opposite, 'World on road to global recession'. Research has shown that clients completing a risk profile during volatile periods are influenced by this uncertainty.

- Risk composure is another wildcard we see manifested when the markets drop. People with low composure might 'freak out', and what they thought was their risk tolerance suddenly seems way too risky. These clients need extra handholding to help them avoid unsound actions, making it important for an advisor to be able to identify these clients with low risk composure. The challenge with a lack of 'composure' is it may not be apparent until too late.
- Clients are usually considered to have one set of emotional factors, like we usually consider that someone has a single IQ, even though there may be sub-factors as we have seen.

Objective Factors

- The more substantial his/her financial goals relative to their investments, the more they may need their investments to grow (called 'risk need'). If the goal is important to the client they may be motivated to take more risk to achieve it, an upward pressure.
- A lack of risk capacity means the client has insufficient resources to achieve the goal if the investments fail to grow as expected. These additional resources could be pensions, government benefits or other assets at their disposal. It is also important to consider what flexibility they have to adjust their goal. This can be influenced by still having fixed debts to fund or simply how important is the goal. Some financial planners will help clients consider goals as 'required' or 'desired'. There is less flexibility with required goals. So if there is a lack of risk capacity the client may need to take less risk with the limited investments.
- Clients might have different goals for which they have assigned different resources (investments, pensions, etc.). This means they might have multiple 'portfolios', goals and risk capacities to consider. Other clients may not 'compartmentalize' their lives as much and consider these things more holistically.

Arriving at a Risk Profile

- A good advisor uses ‘professional judgment’ to combine all of these various factors to determine a client’s risk profile. Arriving at this overall determination is the primary objective of the risk profiling exercise.

Selecting Products

- Based on the risk profile, an advisor can then recommend a portfolio, a product, or a series of products that they feel are suitable. This means that the risk associated with the investment needs to be less than or the same as the client level of risk we determine they are willing to bear. But there are additional challenges.
- The initial rating of the level of risk of products is not always clear.
- Clients may have a different or changing ‘opportunity risk perception’ as well, based on the specific investments they are considering or invested in. Ambiguity aversion (fear of the unknown) can make the client believe the investment is riskier than it is or that the current environment creates a ‘special opportunity’ and it is less risky than previously believed.
- Previous experience, financial literacy and knowledge all act as counter-weights and usually reduce the client’s perception of the risk of investments. Aside from how they affect risk perception of specific products or markets, they can have an impact on our ‘subjective factors’.

3.0 Academic Literature Review

Note: The evolution of consistent terminology means that at the time certain papers were published there may have been ambiguity in the terms. We have tried to adjust these to references as we expect they should be made today.

3.1 The Economic Origin of Risk Tolerance

In 1730, Daniel Bernoulli published an article describing the St. Petersburg paradox, a simple game in which a bet is made on a succession of coin flips. The St. Petersburg paradox led to the idea that investors were not just wealth maximizers, but that they considered the probability and magnitude of outcomes, and valued risky bets according to their so-called risk aversion (also known as its inverse, risk tolerance).

The St. Petersburg paradox and subsequent empirical evidence revealed that humans tend to experience decreasing marginal utility of spending. To a teenager earning low wages, a \$500 annual raise means far more than a \$500 raise as a mid-career professional. The decrease in marginal utility per dollar spent can be mapped out on a graph with dollars spent on the horizontal axis and utility (or happiness) on the vertical axis.

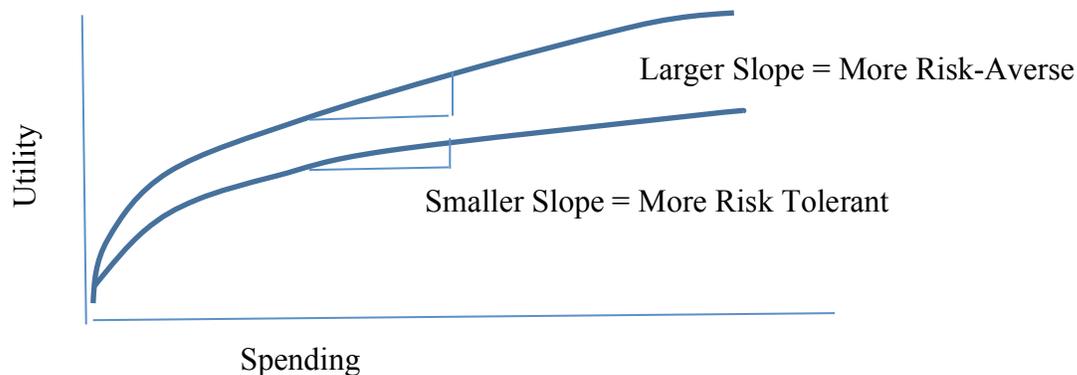


Figure 2: Utility of Return

Mathematically, risk aversion is the slope of the utility function or, more precisely, the marginal change in slope of the utility function at your current level of wealth. In other words, how much additional

happiness would you get from an extra \$500 raise right now? Greater risk, which can be measured as the standard deviation of investment payouts, implies the possibility of either higher future spending or lower future spending. A less risky portfolio will result in less variation in spending, which is preferred by someone who gets less happiness from a good outcome and more unhappiness from a bad one (implied by the steeper slope of the utility function).

The great advantage to this traditional economic concept of risk tolerance is its ability to incorporate individual preferences into models of investment choice and asset pricing (Kritzman, 1992). The ‘Capital Asset Pricing Model’ drawn from ‘Modern Portfolio Theory’ illustrates how; a) the aggregate risk tolerance of investors determines the market risk premium (the excess return we expect to receive from stocks over risk-free investments); and b) the individual’s risk tolerance determines the optimal mix of risky and risk-free assets in an individual’s portfolio. A more risk-averse client should optimally select a portfolio that holds a greater percentage of risk-free assets.

There are two important points related to risk tolerance assessment to be drawn from the neoclassical utility model. The first is that, all else being equal, a more risk-averse worker will receive less marginal happiness from a \$500 raise than another worker with the same income who is risk tolerant. These workers have different utility functions, and different general preferences for taking risk. The same worker who may have a higher salary later in their career will receive less marginal utility from a \$500 raise than they did earlier in their career. In economics, this is related to a concept known as ‘absolute risk aversion’. As our wealth increases we become more willing to accept risk for the same dollar value of an investment.

Financial advisors often refer to this concept as ‘risk capacity’. Clients with more wealth are able to take greater risk because a loss will have less of an impact on expected lifetime spending¹. Wealth may be defined in terms of existing financial wealth, or more accurately by including the present value of expected pensions (Brayman, 2013), human capital (future earning ability), and characteristics that affect near-term budget flexibility such as debt and insurance coverage (Samuelson, 1969).

¹ For example, Brayman (2013) notes that the United Kingdom Financial Services Authority defines capacity for loss as a “customer’s ability to absorb falls in the value of their investment” that would have a “materially detrimental effect on their standard of living”.

Intuitively, an advisor may defend the concept of risk capacity by noting that, for example, a 20% loss to an investor with a \$5 million portfolio will still leave that investor with \$4 million. He is still wealthy enough to meet financial goals. The consequences of losing \$20,000 to an investor with only \$100,000 are more severe.

This example is inconsistent with the concept of ‘relative risk aversion’, which states that two individuals with the same utility function should feel the same disutility from a 20% loss in total wealth. In other words, it is unimportant how large their initial wealth is – what matters is the percent of that wealth subject to investment risk.

Empirically, this is often difficult to sort out. In surveys that include questions that elicit economic risk tolerance preferences, wealthier households are significantly more tolerant to investment risks. Figure 3 shows average responses by wealth level in the Health and Retirement Study (University of Michigan)² in response to a question asking respondents how willing they are to take investment risk. The higher the bar the more ‘risk-averse’ the household is, or the lower the risk tolerance.

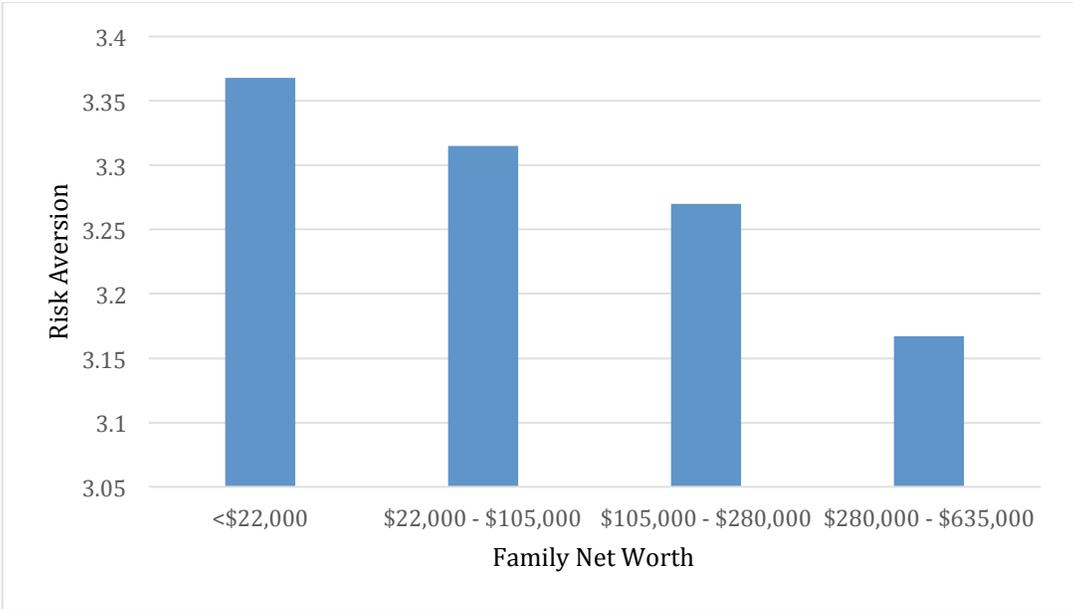


Figure 3: Risk Aversion

² The University of Michigan Health and Retirement Study (HRS) (2012) is a longitudinal panel study that surveys a representative sample of approximately 20,000 Americans over the age of 50 every two years.

In a multivariate analysis where we control for income, education and other household characteristics, the predicted level of risk aversion remains significantly lower for those with more wealth (they are more risk tolerant). Interestingly, when wealth is controlled, income is not a significant predictor of risk tolerance. Higher education, however, is a strong predictor of risk tolerance.

Assessment of risk capacity may be viewed as an evaluation of the *objective* component of financial risk tolerance. Hanna, Waller and Finke (2008) propose a model by which an individual's risk (profile) may be viewed as a combination of objective factors observable to a financial advisor and subjective factors that may only be captured through a risk tolerance assessment tool. Other characteristics that may be related to an objective risk (profile) are earnings volatility (or more accurately risk characteristics of a client's human capital such as the covariance with capital markets and standard deviation) and the previously mentioned claims on future annuitized income and budget flexibility. Age and/or time horizon are often included as an objective measure of ability to withstand investment risk, although Bodie (1995) provides a compelling argument that time horizon is theoretically unrelated to optimal portfolio allocation unless it is considered in the context of the client's human capital³.

The process of risk (profile) assessment should include both relevant objective household characteristics that affect optimal asset allocation and subjective risk preferences. Subjective risk preferences may be defined as the factors that influence the impact various alternative investment portfolios will have on the client's utility or general well-being. Two households with identical objective risk characteristics, but with different subjective preferences will have different amounts of investment risk that will make them happiest.

Palma and Picard (2010) review a number of existing risk tolerance assessment tools and conclude that while the neoclassical economic concept of risk tolerance is clear, its measurement through surveys is unclear. More importantly, behavioural factors outside of neoclassical economics may have an even more important impact on subjective household investment preferences. Scientific evaluation of the

³ For most households, labour income is relatively stable over time. This implies that human capital is a bond-like asset in most cases, and should be valued as a bond within a holistic portfolio. Consistent with the sinking equity allocation of life cycle mutual funds, this implies a decrease in investment risk with time horizon to long-run goals such as retirement.

measurement of these factors is still in its infancy, and this often results in an ad-hoc measurement of subjective risk tolerance in existing questionnaires used by financial advisors.

One of the most important subjective factors associated with a client’s willingness to accept risk is financial knowledge and experience. The importance of education in the multivariate analysis presented earlier is noteworthy because education, independent of income and wealth should not necessarily be a strong theoretical predictor of risk tolerance. To understand why education may be so strongly significant, it is important to consider the concept of ‘risk perception’. More financially literate individuals are consistently more willing to accept financial risk. This may be because they are better able to understand basic principles of financial risk, anticipate the possible variation in performance over time, and recognize the benefit of taking more financial risk as a means of achieving long-term financial goals.

Dow, Da Costa and Werlang (1992) point out that when accepting investment risk, the client must be aware of the distribution of potential outcomes. Less education or financial literacy, or less investment experience, will result in less certainty about the risk of stock investing. In the face of investment risk, clients tend to exhibit ‘ambiguity aversion’. This means that when faced with a risky choice, we tend to reject choices in which the consequences are ambiguous.

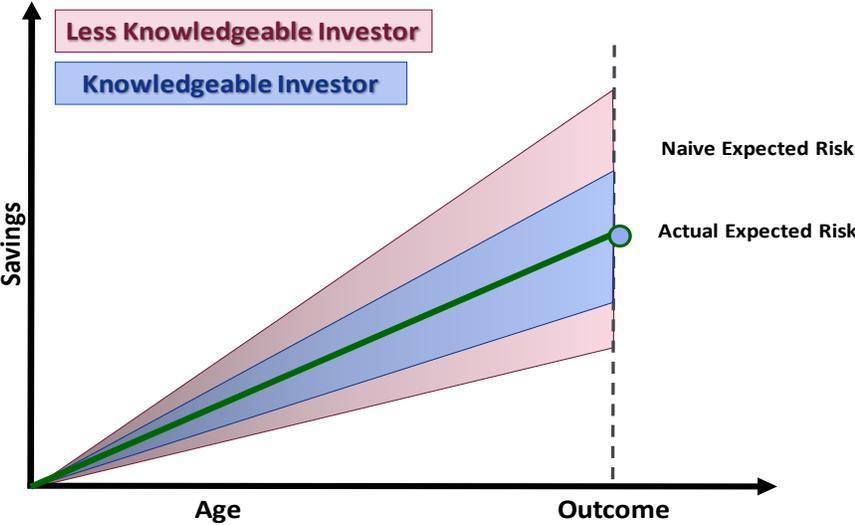


Figure 4: Risk Perception

Figure 4 above illustrates the concept of risk perception. An investor with less financial knowledge may perceive that the variation in long-run investment outcomes is greater than the historical reality. For example, a naïve investor may believe that a short-run drop in the stock market will result in an extreme loss of retirement lifestyle, while an investor with more financial knowledge may realize that long-run risk will likely result in a narrower range of retirement outcomes.

This may be one of the explanations for the stock ownership puzzle, in which Campbell (2006) notes that “all households, no matter how risk-averse, should hold some equities if the equity premium is positive” (p. 1563). About half of Americans do not own stocks; the strongest predictors of a failure to own equities are a complete unwillingness to accept any investment risk and lack of education. Not knowing much about stocks, investment theory, or the mathematics of standard deviation means that we really have no idea how much risk we are taking by investing in stocks. Van Rooij, Lusardi and Alessi (2012) find that ‘financial literacy’, and in particular knowledge of concepts such as diversification, is among the strongest predictors of stock ownership.

3.2 Measuring Risk Tolerance

Since the economic definition of risk tolerance is a variation in future spending, many economists use questions that measure income volatility over time in order to assess risk tolerance. These questions are theoretically correct, but their performance as predictors of actual investment behaviour during volatile stock markets is mediocre (Guillemette, Finke and Gilliam, 2012). An example of an income risk question from a popular risk tolerance assessment test is “if you had to choose between more job security with a small pay increase and less job security with a big pay increase, which would you pick?” Responses for this question range from “definitely more job security with a small pay increase” to “definitely less job security with a big pay increase” (as cited in Guillemette, Finke and Gilliam, 2012, p. 39).

In a multivariate analysis of preference for portfolio allocation between a range of high risk, medium risk and low risk assets, the authors find that income risk questions are associated with investment portfolio preference in a manner that is consistent with conventional utility theory. The income risk questions were also significant predictors of whether respondents shifted their portfolio to cash during

the financial crisis (which may be of greater interest to financial advisors). Other questions, however, including a self-assessment of willingness to take risk and questions that focus on behavioural responses to risk were stronger independent predictors of both actual portfolio preference and response to an investment loss. Linciano and Soccorso (2012) note that less financially literate individuals may not be able to provide an accurate assessment of willingness to accept investment risk, but this has not been tested empirically.

The importance of questions that elicit behavioural responses to investment risk can explain the weakness of economic risk tolerance variables as predictors of risk-related behaviour in US national data sets. Kimball, Sahm and Shapiro (2008) note that responses to a question about income risk in a national survey had only a 0.27 correlation between survey years in a longitudinal sample, and generally have not predicted investment preference in cross sectional analyses well. Grable and Lytton (2001) found that a financial risk assessment instrument available in a large national data set correlated weakly with sets of questions that related to choice gambles involving the possibility of a loss. This suggests that a risk profile may exist in more than one dimension – in this case preferences related to rational portfolio allocation and emotional response to loss.

Perhaps the most important theoretical contribution to our understanding of how clients respond to investment risk is presented in Kahneman and Tversky's (1979) 'prospect theory'. There are a number of ideas presented in prospect theory that are relevant to risk tolerance assessment.

The first relevant feature of prospect theory is the 'reference point'. When assessing the riskiness of a strategy, we tend to focus on gains and losses from an arbitrary starting point. This can be either the initial amount invested with a financial advisor or changes in the value of invested assets presented in period (quarterly, semi-annual) account statements.

The second feature of prospect theory is the concept of 'loss aversion'. We tend to respond much more strongly to a loss than we do to an equivalent gain. In general, the emotional response to loss has been shown to be twice as strong as to gains. The emotional response to loss depends on whether the value falls beneath the reference point.

An advantage of behavioural questions is that they identify investors who may have a more emotional response to risk (Loewenstein, Weber, Hsee and Welch, 2001). The influential dual self model of decision making points to neuroeconomic research that suggests a dual system of rational cognitive decisions formed in the prefrontal cortex and more emotional responses formed in the limbic system (Fudenberg and Levine, 2006).

The dual self model has important implications for creating a risk profile. First, when we are anticipating how we will react to a risk in the future, we tend to over-project our ability to subvert an emotional response to loss with reason. The conflict between reason and emotion has been compared to a rider and an elephant; the rider may feel like he is in control most of the time, but when the elephant feels like going in a different direction there's not much the rider can do. This is analogous to a client who claims to understand that equity investment involves accepting volatility, but who ultimately sells risky assets during a bear market because he can't take the emotional toll of mounting losses.

It has been suggested that behavioural responses to risk can be predicted through questions that elicit a respondent's willingness to reflect on information (such as a market decline) and employ an analytic process to evaluate the information rather than acting on instinct or emotion. An empirical analysis of prospect theory preferences finds that subjects who scored high on a 3-question cognitive reflection test were far less likely to exhibit preferences consistent with prospect theory (Frederick, 2005). It may be possible to use these three questions or a subset of these three questions to predict a concept that can be referred to as 'risk composure', or the willingness to reflect on market volatility and avoid an impulsive response.

Nonetheless, Guillemette et al. (2012) found that responses to questions from a popular risk tolerance assessment tool, such as "[w]hen faced with a major financial decision, are you more concerned about the possible losses or the possible gains?"(p. 39) are much stronger predictors of how investors responded to the financial crisis (about 40% stronger in terms of predictive power than income risk questions). It does appear that investors can, to some extent, predict whether they will respond emotionally to a loss, and a risk tolerance assessment question can capture this more emotional response. 'Self-assessment' questions were also excellent predictors of actual response to financial

losses, although Grable, McGill and Britt (2009) found that younger subjects tended to overestimate their risk tolerance.

A second aspect of the dual self model that is related to risk tolerance is that we tend to respond to gains without invoking the emotional parts of the brain, but when losses occur we are more likely to respond emotionally. In fact, since we are responding emotionally to losses when the market is falling, we may indicate a lower level of investment risk tolerance on an assessment instrument during periods of market turbulence. Guillemette and Finke (2014) find that the correlation between a popular risk tolerance assessment score and the S&P 500 was 0.90 (or nearly perfect) during the January 2007 through March 2009 bear market, but then only 0.01 between the remainder of 2009 and April 2012. A review of scores from a 3-question risk tolerance instrument given to employees participating in Morningstar’s Managed Account program shows a similar correlation between S&P values and measured risk tolerance. (Note: Since Figure 5 graphs Risk Aversion as opposed to Risk Tolerance, correlation between the series will appear as one line going up and the other going in the opposite direction).

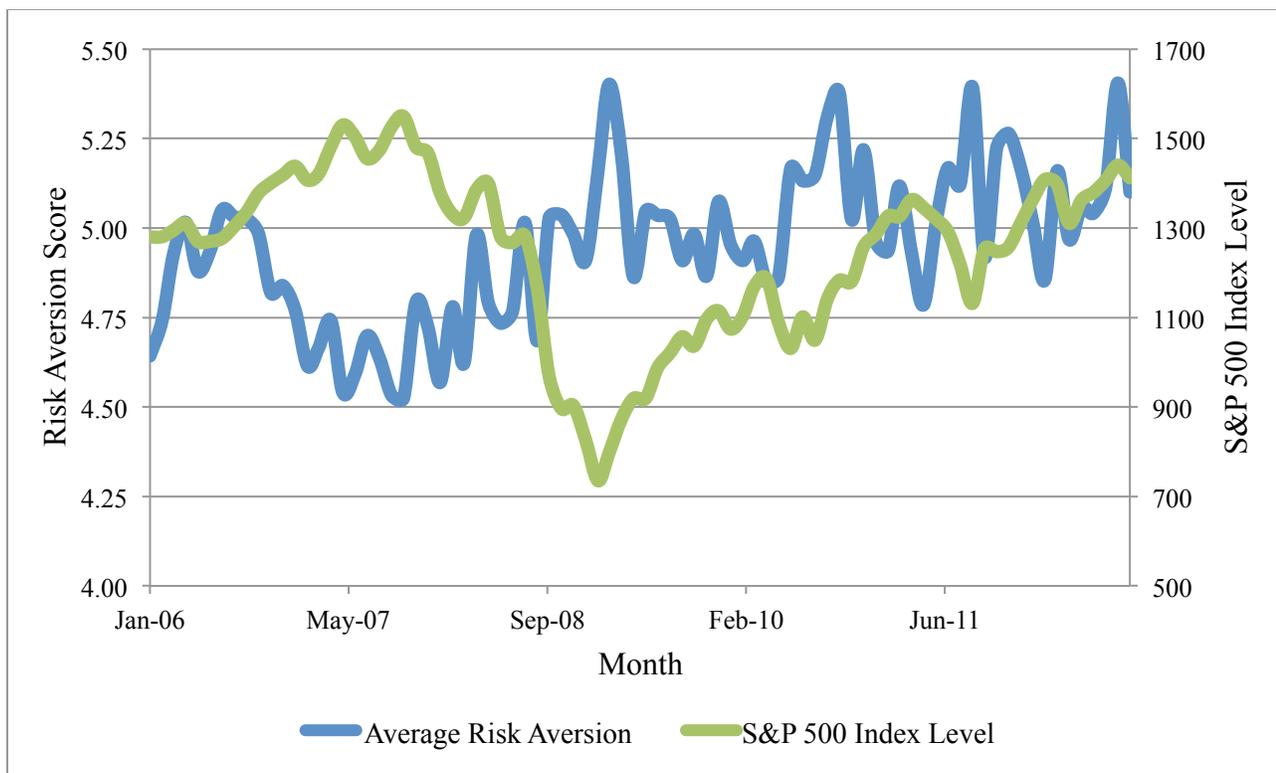


Figure 5: Risk Aversion and Stock Markets Source: Blanchett, Finke and Guillemette, 2014

Browning and Finke (2015) looked at a US national data set between 2006 and 2008 and found that during that time, 57% of households reduced their stock holdings beyond what could be explained by market returns: 17% - less than or equal to a 15% reduction; 15% - between a 15 and 30% reduction; 15% - between a 30 and 65% reduction, and 10% - above a 65% reduction. These decisions to reduce equity positions after a significant market decline, or rebalance their portfolios the opposite the direction predicted when markets decline (which would be to buy equities from safe assets in order to rebalance to a fixed allocation), will have locked in a loss as markets recovered. The fact that 57% of households appear to have displayed this type of behaviour is of significance (p. 356-375). New questions for academics leading from this could help us better understand if clients that were more conservatively invested prior to 2008 were less subject to this behaviour, and are issues of 'risk composure' as or more important than 'risk tolerance' as a determinate of behaviour.

Research has shown that less experienced investors with limited financial literacy tend to be the least able to counteract emotional response to a loss. For example, Bucher-Koenen and Ziegelmeyer (2014) found that less financially literate individuals were more likely to sell stocks during the financial crises presumably because they were responding more emotionally to a loss. Browning and Finke (2015) found that older respondents who experienced a larger decline in cognition scores were more likely to shift their portfolio allocation towards safe assets immediately after the financial crisis. Individual investors appear to be particularly prone to experiencing poor long-run investment performance (also known as 'dollar-weighted underperformance') by investing more in risky assets during bull markets and selling out during bear markets (Friesen and Sapp, 2007).

There are a number of important implications of prospect theory preferences and the dual self model. The first is that some investors respond to risk in a manner that reflects an emotional response to loss. This reflects the tendency to respond to market sentiment (Baker and Wurgler, 2007), (called risk perception in this paper) which can lead to poor financial decisions when risk tolerance varies over time. Some investors like investing in risky portfolios when the market is doing well, and they don't like the idea of taking risk when markets are doing poorly. This creates added complexity when assessing the quality of a risk tolerance instrument. Are questions whose responses do not vary during bull and bear market of higher quality? If the goal is to identify clients who may be more vulnerable to a behavioural response to investment risk, then the instrument should be able to capture loss aversion preferences. It is

possible that questions such as the cognitive reflection test provide a sound method for predicting which clients will exhibit greater risk composure.

The second important implication of the dual self model is that financial advisors can add value by helping a client reduce behavioural responses to inevitable fluctuations in portfolio values. For example, Winchester, Huston and Finke (2011) find that clients who have a written financial plan were less likely to move investments away from equities during the financial crisis. Helping clients articulate an investment policy that is consistent with their risk tolerance score elicited using a risk tolerance assessment instrument while in a rational planning cognitive state may be seen as the first step. Once clients have selected an ideal asset allocation, an advisor can help a client maintain their equity allocation by reducing emotional anxiety and pointing to the written long-run investing goal. In this sense, the risk tolerance assessment instrument provides insight into how a client should optimally behave and the advisor helps a client remain focused on their investment goals.

A third implication is that a lack of experience, financial literacy, or even age-related cognitive decline can reduce a client's ability to temper emotional response to risk. If risk tolerance questions that elicit behavioural preferences indicate a high susceptibility to loss aversion, this may motivate an adviser to construct a much safer portfolio or to select products that provide downside protection or income guarantees.

According to a recent study from the UK (Blake and Haig, 2014), “[m]ore than half (52%) of respondents would prefer to miss their savings goals than take investment risk, with only 12% not prepared to do this. This highlights reluctance by a majority of savers to take the investment risk needed to achieve their savings goals. This has been referred to as ‘reckless conservatism’. The only alternative if savings goals are to be achieved on time is to reduce spending and save more. Yet this trade-off is preferred by less than one third (30%) of respondents” (p. 6).

This study found that although there was a clear relationship between risk tolerance and investment risk a consumer was prepared to assume “there is no relationship between attitude to risk and the respondents’ savings goals or the amount of savings risk (in terms of a shortfall from savings goals) they are willing and able to take” (Blake and Haig, 2014, p. 6).

Advisors may be able to improve a client's ability to select an appropriate amount of investment risk by working to enhance their financial awareness of the consequences of risk. For example, advisors can help clients understand the trade-off required by reduced probability of meeting goals, or having to cut back on current lifestyle to save more, by helping them imagine and articulate a willingness to accept a certain percentage loss in their investments and then coach them into focusing on goals rather than on changes in value from a reference point.

Risk tolerance assessment instruments that include questions that elicit emotional response to loss appear to be effective predictors of how individuals actually behave during periods of market turbulence. Behavioural response to risk, however, leads to suboptimal investment choices that compromise long-run goals. Advisors may respond to indications of behavioural preferences either by selecting a safer portfolio strategy, or by improving an investor's ability to respond rationally to occasional losses from a portfolio that contains an amount of investment risk that is appropriate for a client's goals.

3.3 Building Questionnaires

The objective of a financial advisor is to create an investment plan that is both appropriate for a client, given their financial situation and goals, and provides a level of investment risk that is consistent with their willingness and ability to take risk. Unfortunately, Palma and Picard (2010) find that while questionnaires meant to develop risk profiles are reasonably consistent in their assessment of objective risk tolerance, there is wide variation in how they attempt to elicit subjective risk tolerance. This variation leads to large potential differences in optimal portfolio strategies. A client could receive a recommendation of a lower risk portfolio after taking one test, and a higher risk portfolio after taking another.

Objective measures of risk tolerance are essential. Prior research shows a high correlation between investment risk tolerance and factors such as wealth, education, investment experience, and time horizon. Other objective characteristics such as gender or race have been shown to be less consistent

predictors of investment risk tolerance in multivariate analyses when other household factors are held constant (Gutter, Fox and Montalto, 1999).

The most important criticisms of individual questions on these tests relate to their ability to reliably measure the underlying construct – the willingness to accept investment risk. For example, questions that elicit risk preference outside the context of investment risk may do a poor job of predicting investment risk tolerance. While many empirical studies suggest that investment knowledge and experience strongly predict the willingness to take investment risk, many investors are unable to accurately assess their own financial sophistication.

Analyses of the predictive power of individual questions suggest that behavioural preferences such as loss aversion and the ability to moderate emotional response to investment volatility (risk composure) are particularly useful. Questions that assessed actual response to investment volatility in the past can avoid the tendency to over-project the ability to moderate emotional response following a loss.

Palma and Picard (2010) also found that risk tolerance assessment instruments that contain too many questions are viewed less favourably by advisors and clients alike. Fortunately, Guillemette, Finke and Gilliam (2012) find that a small number of high quality subjective risk tolerance questions can reliably predict how an individual will respond to market risk.

There is enough research on risk tolerance assessment to suggest that a carefully constructed instrument can reveal important characteristics that affect optimal investment choice. At the same time there does not appear to be significant research into how these ‘characteristics’ can be best combined to arrive at a risk profile. One recent study (Carr, 2014) on the relationship between the various risk factors and how they account for a consumer’s attitude towards the aggregated risk profile, showed that ‘risk need’ accounted for over 35% of the model, while ‘risk tolerance’ accounted for 20% and ‘risk perception’ accounted for 15% of the variance in the model.

Research also suggests that in the absence of an instrument, advisors do a poor job of assessing a client’s risk tolerance on their own; advisor’s assessment of their client’s risk tolerance only had a 0.4 correlation to a psychometric risk tolerance questionnaire (Roszkowski and Grable, 2005).

3.4 Agency Issues

Clients hire a financial advisor to help select investments that are appropriate in the sense that they improve the client's overall well-being. Ross (1973) introduced the theory that underlies the selection of an agent (an advisor) to assist in making decisions on behalf of the principal (the client).

This agency relationship can lead to suboptimal recommendations that are not consistent with the preferences of the individual. In some cases, the advisor may have an incentive to recommend a portfolio that is too risky. Any resulting loss is often the focus of complaints to regulators and litigation. An equally important risk, and one that is arguably more significant in terms of aggregate welfare loss among clients, is the temptation to take too little portfolio risk. Advisors may have an incentive to recommend excessive safety if they believe that a client is more likely to discontinue the advising relationship if they experience a loss. Both costs are discussed briefly in this section.

There are two primary compensation models in the financial advising profession (Finke, 2013). Advisors compensated with asset fees are generally paid a fixed percentage based on assets under management. Advisors compensated with commissions are generally paid a commission upon the sale of a financial product as well as a modest asset-based income trail (on some products like mutual funds). These two models will result in different investment recommendation incentives in response to a client risk tolerance assessment test.

In general, fee-compensated advisors hope to maximize the revenue they receive from a client. Over the long run, this may produce an incentive to recommend a portfolio that is as heavily weighted toward equities as possible without risking the possibility that a client will move to another advisor after a significant loss. To this end, advisors have a strong incentive to recommend a riskier portfolio and then work closely with the client during a bear market to help them maintain their optimal allocation. In this sense, the interest of the advisor and the client are aligned. A 50% loss in the portfolio value of all clients will result in a 50% drop in advising income.

Commission-compensated advisors receive compensation primarily at the time of purchase and sale. They are motivated to recommend financial products that the client wants at the time of purchase. Where a fee compensated advisor may try to convince a reluctant client not to sell equities during a recession, a commission compensated advisor may be tempted to accede to a client's increasing risk aversion by recommending the sale of an equity fund in order to buy a bond fund (Anagol, Cole and Sarkar, 2013).

Regulators must be very careful to acknowledge these vested interests. For example, is a fee compensated advisor harming their client by not immediately agreeing to move a portfolio into a safer asset mix when a client becomes more risk-averse during a recession? Is the commission-based advisor looking out for their client's best interests by more frequently responding to changes in a client's risk tolerance in order to recommend investing in a new safer or more risky product? In either case, the long-run best interests of the client may not be well served by simply assuming that responses to a risk tolerance assessment tool are a static indication of an investor's willingness to take risk.

The importance of ambiguity aversion and financial literacy begs the question of whether financial literacy assessment instruments function solely to assess preferences or to initiate a discussion about investments that might enable 'financial coaching'. Many financial professionals (see Evensky, Horan, Robinson and Ibbotson, 2011) view the risk tolerance assessment instrument as an opportunity to craft a discussion about client goals and the creation of an investment policy that is consistent with those goals. For example, a client with a long-term goal may be unwilling to accept investment risk because of limited experience. An advisor can help the client understand the trade-offs of taking no or little investment risk in achieving long-term investment goals. In many cases, assessing risk tolerance provides an avenue to developing an investment policy that is consistent with a client's true preferences – but one that may not have been consistent with their initial responses to a risk questionnaire.

3.5 Summary & Recommendations from Literature Review

Risk tolerance assessment instruments can provide an effective means of evaluating an investor's subjective risk tolerance. Creating an appropriate client risk profile involves collecting information about a household's objective risk factors, for example their income and wealth, as well as their

subjective risk tolerance, which includes attitudes toward risk and susceptibility to behavioural preferences. Not all investors with the same objective characteristics will prefer the same investment portfolio, and there is evidence that advisors cannot accurately assess subjective risk tolerance on their own.

A simple risk tolerance instrument should include questions that assess ability to accept risk within the context of financial assets. A number of behavioural factors, in particular the reaction to a loss, predict how a client will respond to investment volatility. The validity of questions should be judged based on evidence of their ability to predict portfolio preference, and instruments used within the industry should provide a consistent evaluation of an investor's risk profile. There is little use in requiring a risk tolerance assessment test that does not accurately measure the construct it was created to predict.

Emotional response to risk, compensation incentives, and variation in financial sophistication mean that there is a role for advisors to help clients manage risk effectively rather than to simply select a single optimal portfolio that is consistent with a risk tolerance score elicited at a single point in time. Advisors should evaluate a client's risk tolerance before giving a recommendation, but they should also be given the flexibility to incorporate the risk tolerance assessment into building a strategy that gives a client the best opportunity to meet long-run financial goals.

4.0 Regulatory Review

Disclaimer: No one on this committee is or could be an expert on all of the regulations for all the countries we reviewed. A short interview and review of regulations cannot be expected to cover the important nuances of local rules, regulations and enforcement. The intent of this report is not to provide any guidance in these areas, just simply to try and provide a consolidated understanding and highlight some recurring themes.

An important aspect of this project was to review regulators from a number of countries to try and isolate any trends or best practices. Our analysis of the state of regulations is not intended to be a criticism of any jurisdiction or regulator – it is very clear that the improvement of rules and regulations is a journey and regulators must balance many conflicting pressures with limited resources. We hope this paper provides helpful observations for future considerations not only in Canada, where it has been focused, but anywhere there is an effort to improve our understanding of the process of evaluating a consumer's risk profile.

The review of regulations and guidance papers related to risk profiling was conducted in two ways:

- Where possible, we carried out an interview with representatives of the regulators to obtain their observations on the process of risk profiling within the terms of their current and emerging regulations;
- We collected copies of the primary regulations and published guidance papers relating to a country and reviewed these for common themes and for factors specifically mentioned for consideration as part of the KYC and risk profiling process.

4.1 Overview of Key Regulators

We reviewed regulations and guidance papers for the jurisdictions listed in Figure 6 below (see Appendix A for a list of full names of stakeholder bodies and their representatives). We interviewed representatives of regulators from these countries, with the exception of Hong Kong, Singapore and India, as we were unable to make contact with their regulatory representatives on a timely basis. In addition, we interviewed additional stakeholders listed in Appendix A. Countries were selected based on size of the market or the fact that they had been involved in recent changes in the area of risk profiling. Every country's regulations we reviewed had implemented new regulations or guidance papers since 2008 and has continued to assess those changes.

For the interviews, we used a 'semi-structured' interview with a series of 16 questions (see Appendix B). The structure ensured we covered the same themes for all regulators, while allowing participants to freely speak on any topics they thought relevant to the topic of assessing clients' risk profiles.

For all regulators we interviewed, the concept of 'risk profiling' was rated as important or central to the broader Know Your Client (KYC) requirements. Usually, the KYC (often as part of a New Account Application Form or NAAF) captures more objective factors (age, income, net worth). Risk tolerance may be a single question with the selection of a value (i.e. moderate risk tolerance or low risk tolerance) without supporting justification.

The general view expressed during the interviews was that a 'questionnaire' may provide structure to help advisors ask the necessary questions and arrive at a recommended risk profile, but in all cases using a questionnaire for this purpose was optional. Again in all cases regulators expressed that questionnaires were not sufficient on their own and the advisor/dealer had an obligation to look beyond the questionnaire to formulate a risk profile recommendation.

4.1.1 Process Aspects of Regulation

Regulator	Responsibility	Regulatory Silos	KYC by Regulator	Questionnaire Required	Fixed Questionnaire by Regulator	Tools fit for Purpose	All Cash Portfolios
	1	2	3	4	5	6	7
CAN: MFDA	Advisor	Yes	Yes	Recommended	Yes	Yes	Yes
CAN: IIROC	Advisor	Yes	Yes	No	No	No	
UK: FCA	Firm	No	Yes	No	No	Yes	Yes
AUS: AISC	Advisor	No	No	Recommended	Sample questions	Yes	
US: FINRA	Advisor	Yes	Yes	Recommended	No		
EUR: ESMA	Firm	Yes	No	Recommended	No	Yes	
MYS: SC	Firm	Yes	No	No	No		
SGP: MAS	Advisor	Yes	Yes	Yes	Yes		
HKG: HKSC	Advisor	Yes	No	No	No		
IND: SEBI	Advisor	Yes	No	Yes	No	Yes	Yes

Figure 6: Process Aspects of Regulation

Figure 6 is a high level summary of some of the answers provided in the interview process.

1. **Responsibility:** Who is ultimately responsible to ensure an assessment is completed – the advisor or dealer/firm? Some countries (Europe in particular) have placed the onus squarely on the dealer and stated that the advisor acts as an agent for the dealer. Canadian and US regulators have placed the burden on the advisor and have stated that dealers have oversight responsibilities.
2. **Regulatory Silos:** Almost all countries have regulatory silos with different treatment of the client based on which type of licenced advisor they deal with. There was a general recognition that this can lead to regulatory arbitrage. Some countries, like the United Kingdom (UK), have passed regulation of investment suitability across all sectors (insurance, funds and brokerage). Certain countries have formal mechanisms to foster consistent treatment across different regulators and distribution channels. Based on the interviews, Canada appears to have less consistency in this regard than many other countries.

3. KYC By Regulator: Does the regulator have a defined KYC form or outline specific parameters that must be collected by the advisor? Certain regulators have published sample forms for use. Most regulators provide a list of at least a few factors that should be asked in the KYC process.
4. Questionnaire Required: Is a supplementary questionnaire required to help assess some of the more judgmental/subjective factors like risk tolerance? Many regulators may list ‘risk profile’, ‘investor profile’ or ‘risk tolerance’ as a single attribute of the client that can be self-selected by the client or the advisor. Some jurisdictions address questionnaires that cover more attitudinal measures. Certain regulators, like the MFDA, have published specific guidelines.
5. Fixed Questionnaire by Regulator: Has the regulator created or illustrated a sample of best practices for such a questionnaire?
6. Tools Fit for Purpose: Has the regulator specifically addressed the use of tools with requirements around ‘fit for purpose’? Most regulators state that their ‘principles based approach’ carries with it an implicit requirement that questionnaires that are used or developed are ‘fit for purpose’, although there may not be a specific reference to this. Other regulators, such as the UK, Europe, Australia and India, are very clear about this requirement in their rules and guidance papers.
7. All Cash Portfolios: An aspect of ‘fit for purpose’ that has been highlighted by some regulators specifically, is the limitation that many questionnaires, regardless of how they are answered, direct consumers to some form of portfolio with equity content. In other words, they do not recognize the possibility of ‘totally risk averse’ clients. We inquired whether the jurisdiction considered clients with a zero appetite for loss and therefore, no equity in their portfolios.

4.1.2 General Observations from Interviews

We addressed whether regulators were ‘prescriptive or principles-based’ (see section 4.5.2). All regulators, even those with the most prescriptive guidelines, such as the MFDA in Canada, fell back to a principles-based requirement assigning ultimate responsibility to the advisor, dealer or representative. All regulators were concerned that a fully prescriptive approach turned the process into a ‘check the box’ routine and advisors would not apply proper diligence.

This raised an interesting question when looking at the concept of ‘Robo-Advisors’ (one of the questions in the interviews). All regulators confirmed that there are no separate guidelines for automated advice

and that the system must demonstrate that it meets current regulations the same way a human advisor would to ‘know the client’. This is consistent with findings outlined in a survey by The Board of the International Organization of Securities Commissions (IOSCO, 2014). A few countries, including the UK, Australia and Malaysia have specific initiatives that are considering either, automated advice specifically, or the changing framework of advice and technology more generally.

All regulators expressed the view that dealers were making an effort to improve methods by which they determined a client’s risk profile for investing. Although there was a general concern by dealers over the cost of compliance, regulators felt the anecdotal evidence was that dealers were happy with regulatory changes and guidance that provided more clarity on KYC and suitability expectations.

All regulators indicated that they reviewed the activities of other regulators. For some regulators this was a formal part of their process and they had a list of regulators they reviewed. Some checked activities of other regulators on a more *ad hoc* basis.

4.2 Discussions with Specific Regulators

4.2.1 Financial Conduct Authority (FCA) – United Kingdom

The UK regulator, FCA, was one of the first jurisdictions to specifically address the area of risk profiling in their thematic review “Assessing Suitability: Establishing the Risk a Customer Is Willing and Able to Take and Making a Suitable Investment Selection”, published in January 2011. The review was comprehensive in scope, evaluating tools and processes in use and highlighting a variety of observations and recommendations including:

- “[o]f the investment files assessed as unsuitable between March 2008 and September 2010, we rated half of these as unsuitable on the grounds that the investment selection failed to meet the risk a customer is willing and able to take” (p. 2);
- “[a]lthough most advisers and investment managers consider a customer’s attitude to risk when assessing suitability, many fail to take appropriate account of their capacity for loss” (p. 3); and
- “[t]ools can usefully aid discussions with customers, by helping to provide structure and promote consistency. But they often have limitations, which mean there are circumstances in which they

may produce flawed results. Where firms rely on tools they need to ensure they are actively mitigating any limitations through the suitability assessment and ‘know your customer’ process” (p. 3).

The UK regulator (consistent with all regulators we talked to) expressed that the overall adoption of new rules was well received and their enforcement division observed higher standards applied by firms and their advisors in the area of KYC and risk profiling. They pointed out that there were many aspects of change in the UK since 2008 and it was not possible to attribute positive changes to any single initiative.

Although the regulator monitors enforcement of the directives in the guidance papers on a regular basis, they only perform thematic reviews on topics like risk profiling periodically. FCA has not revisited the issue of assessing suitability since the 2011 FSA Guidance. It was observed during the interview that the guidance focused on risk tolerance and, although risk capacity was recognized as an important factor, there was no specific direction or definition on how to evaluate this. Further, concepts like ‘risk need’ or ‘risk composure’ were not well articulated in the academic literature at this time or addressed in the guidance.

4.2.2 Australian Securities and Investments Commission (ASIC) – Australia

Australia, like the UK, has attempted to raise the bar on the financial advisory profession and address issues of conflicted advice through a variety of initiatives, including banning commissions, new educational standards, increased regulatory focus and increased enforcement.

Although the regulator acknowledged that the rules and guidance available might mention risk tolerance and risk capacity, there was a stronger focus on the fact that the ‘best interest’ duty dictates a level of diligence for the advisor to have a proper process in place, even if the components are not prescribed in regulation. In the event of a file review (regulatory audit), the regulator looks for evidence that the advisor properly considered many factors and the resulting recommendations incorporate all of these factors.

Two of its reports, Regulatory Guide 362 (2013) and Regulatory Guide 251 (2011), examined the industry and attempted to share the regulator’s thinking in this regard. A consistent theme in these reports is that any tool must be used in conjunction with additional questions. The questionnaires are only one component and the advisor must engage in discussions with the client to reach a final agreement on a risk profile. This agreed profile could easily be inconsistent with the results of any questionnaire. These reports also addressed issues of conflict, for example, when two people seeking to open a joint account have different risk profiles.

In the report, “Risk Profiling in Financial Advice Disputes” by the Australian Ombudsman (FOS) (2011), specific criteria is outlined that the Ombudsman believes validates whether the advisory firm is considered to have put in place an appropriate risk profiling process and accounted for limitations of tools, as well as for the various factors as dictated by their regulatory obligations.

[t]here is no mandated method of risk profiling and a number of methods have been developed by FSPs, including:

- risk profile questionnaires;
- the risk tolerance line method;
- the life-cycle approach; and
- the sensitivity analysis approach.

It is important to remember that whatever method is used, it is only a tool for FSPs to use as part of the process of determining clients’ tolerance to risk.

FOS also recognizes that skilled advisers can secure their clients’ informed consent without using risk profiling tools.

Regardless of whether risk profiling tools are used or not, FSPs must keep detailed records that show they secured their client’s informed consent about the level of risk required to achieve their objectives. Without these records, FSPs have greater difficulty defending claims involving the adequacy of their risk profiling practices and procedures (2011, What is risk profiling section, para. 3)⁴.

The statement “the level of risk required to achieve their objectives” is an important recognition by the regulator that investing cannot be considered separately from a client’s goal.

4.2.3 European Securities and Markets Authority (ESMA) - Europe

The European region is similar to Canada because of its multiple jurisdictions held under a common regulatory umbrella. The current law (Markets in Financial Instruments Directive or MiFID) is made at

⁴ FSPs are Financial Service Providers and FOS is the Financial Ombudsman Service.

the regional European level and is being updated by MiFID 2. ESMA is a public EU entity that provides guidance to securities regulators on how to implement new regulations, and is comprised of 28 Supervisors, one from each member country. Each Supervisor is then responsible to ensure their country or region complies with the new law. Countries may surpass the basic requirements set out, but they must at least meet the EU standard.

Most of the rules related to risk profiling and suitability were covered in MiFID 1 under Guideline 387 (ESMA, 2012), Section 5. ESMA suggests that current laws will not change, but additional Guidance may be generated on how firms should implement these rules.

Like the UK and Australia, the rules in Europe are principles based and not prescriptive in nature. The regulator pointed out that currently Guideline 387 is a high level guideline, which specifically mentions risk tolerance and risk capacity, but there is no reference to goals or time horizon. Firms may evaluate some of these factors, not because they must, but rather as a best practice. The rules are clear that where tools are used, a firm must demonstrate that it is ‘fit for purpose’.

MiFiD lays responsibility on the firm to ensure there is a supportable and reliable process. They recognize that it can be contingent on the quality of the information the client provides, but firms must take reasonable steps to ensure they have the proper information. In Europe, the firm is the entity that is authorized to provide advice and the advisor acts as their agent.

Because ESMA’s role is more akin to being a consultant, rather than a regulator to the member countries, they do not play a direct role in implementation or enforcement; ESMA will oversee how each country’s regulator has implemented the rules. Some countries like France (Palma and Picard, 2010) and Italy (Linciano and Soccorso, 2012) have undertaken their own research reviews into risk profiling, which we have examined as part of the literature review.

4.2.4 Financial Industry Regulatory Authority (FINRA) – United States

FINRA is the largest independent regulator for all securities firms doing business in the United States and attempts to protect investors by ensuring the United States' securities industry operates fairly and honestly. FINRA oversees over 4,000 brokerage firms.

During the interview with FINRA, it was highlighted that the securities industry has been subject to a suitability rule for over 80 years, and during that period, investment objectives were a requirement but risk tolerance was not a topic defined in the rules. As of July 2012, FINRA Rule 2111 (2014) went into effect, which requires “customer-specific suitability”. Like other regulations this is a principles based statement, so it is left to the firm and advisor to determine what attributes define the criteria used for the selection of an investment solution.

FINRA's Regulatory Notice 11-25 (2012) provides additional guidance on the issue of suitability. FINRA states “a broker must have a reasonable basis to believe that a[n] . . . investment strategy . . . is suitable for the particular customer based on the customer's investment profile” (p. 2). They go on to specify “(t)he new rule broadens the explicit list of customer-specific factors that firms . . . must attempt to obtain and analyze when making recommendations to customers” (p. 3). Other factors that a firm should attempt to collect and consider include age, investment experience, time horizon, liquidity needs and risk tolerance. These were added to the existing list, which included other holdings, financial situation and needs, tax status and investment objectives.

FINRA (2012) defines time horizon as “the expected number of months, years, or decades [a customer plans to invest] to achieve a particular financial goal” (p. 4) and risk tolerance as a customer's “ability and willingness to lose some or all of [the] original investment in exchange for greater potential returns” (p. 4). This definition aligns more consistently with what we have defined as a risk profile since it combines at least two factors – ability, which we relate to risk capacity, and willingness, which relates to risk tolerance.

In the interview with FINRA, representatives highlighted the difference between a KYC account opening form and a questionnaire used to evaluate risk tolerance. FINRA has generated a model account

opening form, and on it “risk tolerance” is a single self-selected attribute. There is no requirement for anything beyond this, although some firms may use questionnaires or software tools to help determine risk tolerance as a best practice.

4.2.5 Other Countries – Malaysia, Singapore, India, Hong Kong

Although we interviewed the Malaysian Securities Commission (SC), and not Singapore, India or Hong Kong, we did review the regulations from other countries that share some of the same Commonwealth history as Canada to determine whether or not there was similarity of regulation and common law practices. Notwithstanding this history there were wide differences between even this small subset of markets.

In December 2012, the SC introduced a new guidance called “Guideline on the Sales Practice for Unlisted Capital Market Products”. Within that guideline, the SC provides that firms must have “reasonable practices” but because this is principle based the dealers determine how to accomplish this.

The SC representatives stated during their interview that while there had been requests from the industry to prescribe a specific set of questions, it was felt this would turn into a simple “check the box” exercise. Many regulators echoed this belief during our interviews.

In January 2013, the Securities and Exchange Board of India (SEBI, 2013) introduced new Investment Advisor Regulations stating that an investment advisor shall act in a fiduciary capacity (p.8), and:

- (b) it has a process for assessing the risk a client is willing and able to take, including:
 - (i) assessing a client’s capacity for absorbing loss;
 - (ii) identifying whether the client is unwilling or unable to accept the risk of loss of capital;
 - (iii) appropriately interpreting client’s responses to questions and not attributing inappropriate weight to certain answers.
- (c) where tools are used for risk profiling, it should be ensured that the tools are fit for purpose and any limitations are identified and mitigated;
- (d) any questions or descriptions in any questionnaires used to establish the risk a client is willing and able to take are fair, clear and not misleading, and should ensure that:
- (e) questionnaire is not vague or use double negatives or in a complex language that the client may not understand;
 - (i) questionnaire is not structured in a way that it contains leading questions.
- (f) the risk profile of the client is communicated to the client after risk assessment is done;
- (g) information provided by clients and their risk assessment is updated periodically (p.10).

SEBI has built upon some of the guidance papers and research from other regulators with a clear statement that tools or questionnaires must be fit for purpose and not be subject to arbitrary weightings. Further they have highlighted issues related to poorly written questions and to some of the components that comprise a risk profile.

Singapore was one of the first countries in the region to recognize the concept of a risk profile. In their Financial Advisors Act 2002, the Monetary Authority of Singapore (MAS, 2012) stated:

a financial adviser is required to conduct a needs analysis on its clients, which entails gathering information on the client's investment objective, financial situation and risk profile, before recommending an investment product that suits the client's needs and personal circumstances . (p. 20)

MAS also created some prescribed questionnaires that provided specific direction on what information to collect, how to complete the needs analysis, and questions to ask for the risk profiling. However, the ability for clients to opt out of this process by requesting limited advice may reduce the effectiveness of the regulations.

Regardless of the degree of clarity in the regulations, enforcement is a critical aspect of successful change. It must start with the legal framework, but it takes time for this to be implemented by firms within pre-existing systems. It takes even more time for it to be used in practice and longer still before regulators can ensure the changes take effect through enforcement. More than one regulator we interviewed stated that it took five or more years for changes to be impactful once they were initiated.

4.3 Canadian Regulators and Stakeholders

We used the same questions (Appendix B) with Canadian stakeholders as we had with the international regulatory groups. Specifically, we interviewed:

- Investment Funds Institute of Canada (IFIC) – a membership organization for mutual fund manufacturing and distribution firms
- Investment Industry Regulatory Organization of Canada (IIROC) – Securities regulatory/SRO
- Mutual Fund Dealers Association of Canada (MFDA) – Mutual fund distribution/SRO
- The Ombudsman for Banking Services and Investments (OBSI)

4.3.1 Investment Funds Institute of Canada (IFIC)

As a trade organization, IFIC is actively engaged in the support of their members, with 75% of their focus on regulatory changes and policy discussions related to the industry. As regulation tends to be granular, IFIC expressed in its interview the need to understand and ensure members can implement necessary changes and IFIC supports this with research and data.

IFIC expressed that its members want to see IIROC and MFDA provide more guidance and clarity on the issue of suitability. However, IFIC is concerned that regulators are sensitive to regulation that is applied to one sector in isolation, thus creating an incentive for regulatory arbitrage. Regulators must look at the overall investor experience since consumers do not necessarily examine or even understand which regulatory regime they may be dealing with – MFDA, IIROC, Insurance – nor do consumers understand or appreciate the differences. Even though Canada’s regulators are siloed, this does not preclude co-operation among them so that similar standards are applied with respect to treatment of the client.

During the interview, IFIC expressed that risk profiling is at the heart of the discussion when an investor is looking to participate in the market. To really understand the client, advisors must understand that the questionnaire is just a proxy, and that relying solely on a questionnaire is insufficient. It is important to know and understand the context of the goals and objectives of the client. According to IFIC

representatives we interviewed, most advisors see themselves as coaches for clients, helping them define and achieve their goals.

4.3.2 Investment Industry Regulatory Organization of Canada (IIROC)

IIROC has a principles based approach to the assessment of a risk profile, like FINRA in the United States. IIROC representatives expressed that there was a suggestion from dealers that IIROC should develop a risk profiling questionnaire. IIROC has a sample KYC form but has not generated a sample questionnaire.

In the matter of risk profiling, the IIROC regulations provide that the advisor must be able to demonstrate that the client has the willingness and financial ability to accept the risk. Advisors are required to look at time horizon and investment objectives in the ultimate profile.

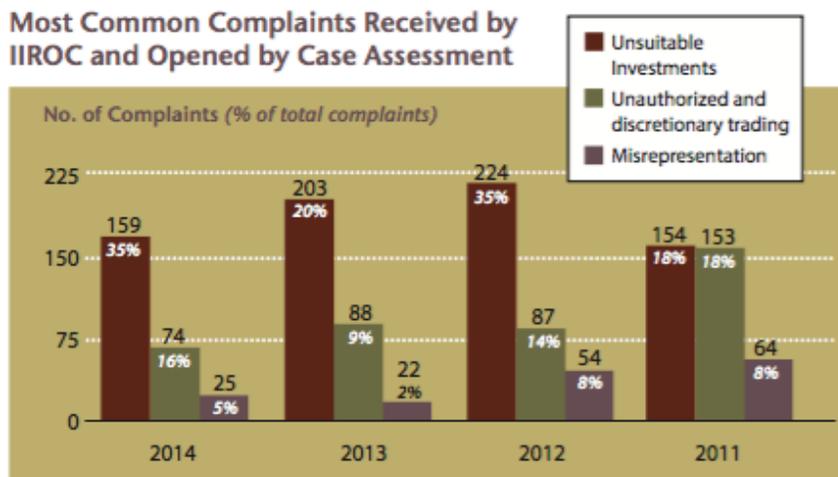


Figure 7: IIROC Common Complaints Source: IIROC’s 2014 Annual Enforcement Report.

IIROC’s statistics (2014, p. 22) confirm that the most frequent matters of prosecution related to suitability. It is not possible at this time to differentiate what proportion of these issues are a function of improperly assessing the client’s ‘risk profile’ as opposed to mapping to products or the estimation of the risk associated with the products.

4.3.3 Mutual Fund Dealers Association of Canada (MFDA)

MFDA is one of the most prescriptive regulators we reviewed as it has released a specific guidance in the area of risk profiling methodologies along with a ‘safe harbour’ questionnaire.

The MFDA’s guidance refers to risk tolerance, risk capacity and risk need. It indicates these factors should be examined and assessed individually, but must be combined in the determination of the recommended profile. In the area of risk capacity, as an example, they recommend that the advisor review the client’s income stream and limitations on their income in the future. Advisors are required to consider the client’s reaction to loss in the short term and the long term.

The MFDA representatives were clear during the interview that they consider that the risk assessment is more than the questionnaire itself. Additional questions by the advisor must be considered so completing the questionnaire is not a “check the boxes” exercise that will automatically render the advisor compliant. That said, the MFDA representatives advised that if an advisor uses the MFDA’s questionnaire, it is considered a ‘safe harbour’ in that the MFDA risk questionnaire is considered fit for purpose.

The MFDA undertakes regular audits of dealers, and when doing so, reviews the questionnaires in use. They performed boundary tests by having ‘use cases’ of specific responses, especially at the extremes, to ensure that the questionnaire used by the dealer provides reasonable guidance. The MFDA staff also examine the questionnaire to ensure that the results are adequately mapped into enough options to represent the diversity of clients. In general, the MFDA staff interviewed suggested that four or five portfolios are sufficient. Finally, they review the construction of the model portfolios to ensure the risk levels of products are consistent with the risk levels of the profiles.

In our review of dealers and questionnaires, only one mutual fund dealer stated they used the MFDA questionnaire. It is difficult to assess the impact this initiative has had to date, as the use of questionnaires remains optional and the MFDA initiative is relatively new. That said, the MFDA’s attempt to ensure questionnaires are fit for purpose is a step in the right direction.

In discussing the process of completing questionnaires with MFDA staff, it was observed that:

- it is often hard for a client to truthfully and completely answer the questions in a questionnaire;
- there needs to be ‘red flags’ that an advisor identifies, indicating a need to dig deeper;
- many dealers believe having the client complete the questionnaire in their hand-writing or signing off on the form is sufficient; however, this is not the case. Evidence of the process the advisor followed and the diligence used to gain an understanding of the client is crucial; and
- the exercise of determining the risk profile of the client must be done before any product recommendations can be made. Issues arise when advisors try to complete the assessment of risk only to support a recommended solution.

Since 2008, the MFDA has noted a significant improvement in the KYC methodology used by dealers and advisors, as well as the method and quality of supervision.

4.3.4 Ombudsman for Banking Services and Investments (OBSI)

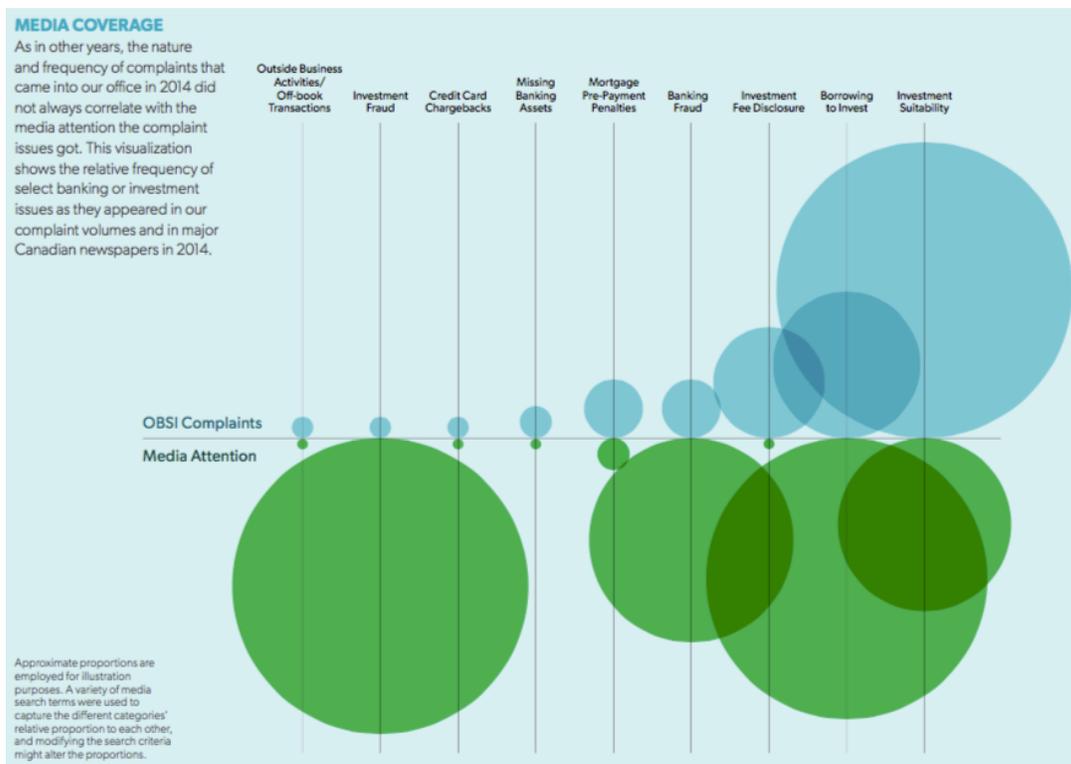


Figure 7: OBSI Disputes Source: OBSI's 2014 Annual Report.

OBSI is a national dispute resolution body created by industry agreement, not statute, including disputes through the IIROC and MFDA channels. OBSI issues recommendations for settlement⁵, which are not binding. OBSI can publish the name of the dealer and advisor as well as their views of the facts and conclusions of the complaint ('name and shame') if dealers do not comply with their recommendations. They report (OBSI, 2014) that there have only been 19 refusals to adhere to their recommendations over the last several years, thereby resulting in the resolution of 99% of complaints directed to OBSI. CSA Staff Notice 31-340 (2014) announced changes under National Instrument 33-103 by the Canadian Securities Authority (1997) that the OBSI mandate had been extended to include exempt market and scholarship plans, amongst others.

During the interview, OBSI representatives advised that investment suitability has been the number one area of complaint by consumers for many years (see Figure 7 above); this is consistent with the information contained in their 2014 Annual Report (OBSI, 2014, p. 36).

The OBSI stated that the responsibility for assessment of the risk tolerance lies with the advisor and dealer. The OBSI's position is that reported court decisions state that the responsibility for assessing risk tolerance cannot be shifted to the client – the advisor must fulfill the KYC requirements and the dealer must supervise the advisor.

Because the OBSI's mandate is to resolve disputes within the context of existing rules and regulations, they rely heavily on, and work closely with, the MFDA and IIROC to apply the standard of care articulated in their rules. The OBSI encourages the provision of additional regulatory guidance or direction that helps advisors more accurately assess clients' risk profiles and, thereby, reduce the number of complaints.

⁵ Currently set at a maximum sum of \$350,000.

4.4 Overview of KYC Factors Highlighted by Regulators

REGULATOR	RISK ASSESSMENT			DEMOGRAPHIC & FACTUAL				KNOWLEDGE & EXPERIENCE				GOALS OR USE OF FUNDS			
Factor/Attribute	Risk Tolerance	Risk Capacity	Loss Aversion	Age	Annual Income	Net Worth	Stability of Employment	Investment Knowledge	Investment Experience	Level of Education	Current & Prior Vocation	Investment Objectives	Time Horizon	Specified Goal	Other Uses of Funds
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CAN: MFDA	Yes	Yes	Yes	Yes	Yes	Yes		Yes				Yes	Yes		
CAN: IIROC	Yes			Yes		Yes		Yes				Yes	Yes		
UK: FCA	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
AUS: AISC	Yes	Yes		Yes	Yes	Yes	Yes	Yes				Yes			Yes
US: FINRA	Yes	Yes		Yes		Yes			Yes			Yes	Yes	Yes	Yes
EUR: ESMA	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
MYS: SC								Yes	Yes						
SGP: MAS	Yes	Yes			Yes	Yes						Yes			Yes
HKG: HKSC	Yes	Yes							Yes			Yes	Yes		
IND: SEBI	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes	Yes		
Academic Relevance	Self Assessment, Behavioural Qs good, Psychometrics work	Financial measure relates to NW, Pensions, Debt	Behavioural Qs, Financial Literacy raises	Age is not a direct factor to risk profile. Indirectly affects time horizon	Not a factor	Strong link to risk capacity		Strong tie to risk perception	Strong to loss aversion	Strong to risk perception					

Figure 8: KYC Factors

Figure 9 sets out the common factors that are highlighted by regulators as being important to consider in the KYC process. We have divided the factors into four primary groups – risk assessment, demographic and factual information, knowledge and experience and finally goals or use of funds. We have also highlighted which of these factors or attributes have been determined to influence or predict a client risk profile. Initially the research team created a more comprehensive list of 22 factors we believed might be referenced, however we removed factors that were not referenced in any regulation or guidance in respect to risk profiling (i.e. risk composure, risk perception, source of funds).

Where a regulator outlined what can be considered multiple attributes under a single definition, it was broken out into separate components. For example, FINRA’s “ability and willingness to lose some or all of [the] original investment in exchange for greater potential returns” (as cited in FINRA, 2011, p. 4) resembles risk capacity (ability) and risk tolerance (willingness).

As will be discussed in Section 4.5, the general lack of definition makes it difficult to confirm the intent behind the regulation or guidance papers in many cases. Where we found a specific reference to the term we have entered a ‘Yes’ in the table.

4.4.1 Risk Assessment Factors

1. Risk Tolerance: Willingness to assume risk, a behavioural measure, was referenced in almost all jurisdictions. In many cases the regulators use this term as a description of the composite of multiple factors, which we refer to as risk profile.
2. Risk Capacity: Ability to assume risk, as opposed to willingness, was particularly relevant when we consider the consequences of losses or in cases where there are mitigating factors, like other sources of income (pensions), other funds available etc. This must be fact based.
3. Loss Aversion: Likelihood to maintain investments in down markets and crystalize, or not crystalize, losses.

Although there are other factors involved in assessing risk, such as risk composure and risk perception, which were outlined in the definition of terms and in the literature review, such terms are relatively new and are not highlighted or defined in any regulation. Research on the topic of questionnaires by the regulator in France highlighted the importance of risk perception; however, this factor is not covered in the regulations.

4.4.2 Demographic & Factual

4. Current age: Required in most regulation and heavily weighted as a contributing factor to risk profiles in some, even though academic research has shown it not to be a direct factor. Age can influence diminished capacity and have an impact on time horizon.
5. Annual income: Income from earnings as opposed to investments is requested by most regulators. Research has determined income is not a primary determinant of risk profiles.
6. Net Worth: Most regulators require the net worth or the sum of all assets and liabilities. It has been determined to correlate to risk capacity.

7. Stability of employment: How long a client holds a job on average, as well as how often the client changes his vocation are required by certain regulators.

4.4.3 Knowledge & Experience

8. Knowledge of investment instruments, processes and consequences: Knowledge, financial literacy and experience have been determined to influence risk perception and risk tolerance. They reduce ambiguity aversion and offset media influence.
9. Financial experience: Types of accounts and instruments the client has had in the past (mutual funds, stocks, options trading, margin accounts, discount brokerage, et cetera). Experience can be an indicator of, but does not guarantee, financial knowledge.
10. Level of education: High school, college, under graduate, graduate, or doctorate.
11. Current & prior vocation: Work experience in a role like financial controller versus a role as an actor will result in different degrees of financial knowledge.

4.4.4 Goals or Use of Funds

12. Investment objectives: Traditionally this type of question asks whether the client desires growth, income or a blend of both.
13. Time horizon: When is some predetermined amount of money required from the portfolio? There is considerable ambiguity around this term, which is sometimes asked as: ‘the first day’ funds are required; or, ‘when a certain percentage of funds will have been paid out’; or, ‘when it starts and how long withdrawals will last’.
14. Goal: An understanding of how much money is needed, for what purpose(s), when that sum is required and for what period of time. ESMA was the only regulator to highlight this level of detail.
15. Other uses of funds: As an example, the UK regulator, FCA, highlights that an advisor should determine if a client should retire debt as opposed to simply investing. Most regulators do not require that the advisor consider anything other than the suitability of the investment. Even a client’s best interest or fiduciary standard can be such that the advisor need only consider the investment perspective and not take a holistic perspective.

4.5 High Level Themes and Considerations

This section of the regulatory review focused on important themes we identified based on their relevance to the Canadian context. This section is a review of Canadian regulation in respect to these issues. The issues being discussed impact many regulators and we have tried to provide international context to each of the primary themes.

Since this study was commissioned by the Ontario Securities Commission (OSC), Investor Advisory Panel, and Ontario is a common law province, our review was based on the Canadian Securities Administrators (CSA)⁶, and the SROs (MFDA and IIROC). We did not include the ‘Autorité des marchés financiers’ (AMF) or the Civil Code of Quebec.

4.5.1 Definitional Problem

For advisors and dealers to meet their regulatory and legal obligations they need a clear definition of client risk. There is inconsistency in language and meaning of risk within regulations and regulatory guidance, and amongst regulators. Regulations that were reviewed for this paper were inconsistent; even a single regulation contained different vocabulary, without definition, referring to ‘risk tolerance’, ‘risk profile’, ‘risk capacity’ and ‘risk need’. This may lead to confusion. In reference to client ‘risk’, do regulators intend to mean the willingness to assume risk, risk capacity, or is it intended to encompass all components of a client’s risk profile? Is it only in respect to investment funds or other aspects of financial decisions like borrowing money?

CSA

The CSA National Instrument 31-103 (2011) refers to “suitability”, but does not provide language relating to risk tolerance. Part 13 s. 13.3 provides that before accepting instructions, or making recommendations, the advisor must ensure each trade is suitable. Part 13 also provides at 13.2(4) that

⁶ The CSA is an umbrella organization of Canada’s provincial and territorial securities regulators whose objective is to improve, coordinate and harmonize regulation of the Canadian capital markets.

KYC information must be kept current. The components of the KYC information are clarified in the companion policy.

The companion policy (31-103CP) (2011) sets out a list of KYC information that a registrant must obtain to determine suitability of a trade (i.e. client's circumstances). It is more prescriptive for portfolio managers who engage in discretionary trading for their clients (i.e. they must understand the client's investment needs and objectives including time horizon and overall financial circumstances, including net worth, income, current investment holdings and employment status). While 31-103CP uses the term 'risk tolerance' in reference to types of securities and investment portfolios, there is no definition provided. As outlined in the literature review, risk tolerance is an attribute of the individual so referring to risk tolerance in respect to 'types of securities and investment portfolios' may create additional confusion.

IIROC

The language used in Guidance Note 12-0109 (IIROC, 2012) refers to 'risk tolerance' in the context of collecting the essential information from a client, including 'personal information', 'financial information', 'investment objectives' and 'risk tolerance'. There is no definition for risk tolerance and no reference to the sub-factors of risk.

The language used in IIROC Rule 1300 (2015a), section 1, (p), (q) and (r), in the context of Suitability is: "the client's current financial situation, investment knowledge, investment objectives and time horizon, risk tolerance..." (section 1(p), para. 1); no definition for "risk tolerance" is provided.

Further, IIROC explains that risk tolerance and investment objectives are two separate but related factors, which must be assessed "based on the client's [1] financial circumstances and [2] personal circumstances and must be reasonable in light of those circumstances" (2012, Know your client information items to be collected and assessed section, para. 1). However, there are no definitions or any language to assist the dealer or advisor with how IIROC interprets these two terms and how IIROC considers them to be both separate and related.

The IIROC Guidance (2012) further expands considerations of Time Horizon as follows:

- age; and
- when the client will need to access some or all of the money in the account.

The risk tolerance example in the IIROC (2012) Guidance is one in which age and net worth are the guiding factors. It does not appear to provide any consideration of attitudinal factors or the risk need resulting from the client's goals. However, it confirms that the factors and those in 1300.1 (IIROC, 2015a) are not exhaustive.

As outlined in the literature review, age has been determined not to be a primary determinate of risk profile, although it is clearly an important piece of information for the advisor to know. Advanced age can raise the possibility of diminished capacity and can be a consideration in respect to the client's time horizon but is not directly related to risk tolerance or risk profile.

MFDA

The MFDA issued Bulletin #0611-C (2014a) as well as MFDA Staff Notice 0069 (2008) provide guidance to advisors and defines risk tolerance as “the lower of the investor's willingness to accept risk and the investor's ability to withstand declines in the value of his or her Portfolio” (p.8). This definition is a comparison of the rating of one subjective factor (tolerance) and one objective factor (capacity).

Even with this definition, however, the MFDA suggests⁷ that this is not a simple exercise and further confirms their view in the MFDA Staff Notice that provides that measuring risk tolerance is ‘complex’ and ‘is not an exact science’.

While the MFDA is considerably more prescriptive than IIROC, the MFDA references risk need as a factor not to be considered in the profile. It does not reference risk composure, risk preference, or risk perception which can be sub-factors influencing the risk profile. The MFDA does refer to the term ‘client profile’, but does not offer a definition in its regulations, MFDA Bulletin or MFDA Staff Notice.

⁷ Both in interviews and in the MFDA (2014a) Bulletin, p. 1.

While the MFDA's definition specifically considers certain aspects of risk, MFDA staff articulated during the interview that risk assessment involves multiple factors, not simply attitude to risk, but other key factors that need to be discussed between the advisor and the client. While this does not add further clarity to either the definition or criteria for the risk profile, it does emphasize the importance of dialogue. Both in the MFDA (2014a) Bulletin and MFDA (2008) Staff Notice, it is suggested that the questionnaire is very important; however, engaging in discussions with the client is essential.

International Observations

The lack of definition, or partial definition, of terms is true for all regulators. Some regulators have commented on the fact that regulation and guidance must be drafted with the best information available at the time, but until it becomes a matter for subsequent review or follow-up, it will remain based on that understanding from the time the guidance is drafted.

FCA, the UK regulator, commented during the interview that they appreciated that aspects of the definition of risk profiles had been expanded, but until they carry out an update on the theme of risk profiling as they did in 2011, their definitions are fixed.

4.5.2 Specific Prescriptions versus General Principles or Guidelines

Most regulators we reviewed, with the exception of the MFDA, chose to provide general and vague, rather than specific guidelines. However each of those regulators did provide a list of considerations to be included when assessing a client's risk.

CSA

The CSA was the most general concerning the assessment of client risk. CSA's NI 31-103 (2011) Division 2 Books and Records s. 11.5(2) (1) stated that a registered dealer must keep records that demonstrate compliance with KYC and suitability requirements. Their 31-103 CP (2011), Part II,

section 13.2 provided that “[i]n all cases, we expect registrants to be able to demonstrate a process for making suitability determinations that are appropriate in the circumstances” (p. 183).⁸

IIROC

IIROC (2105b) Rule 2500, Retail Account Supervision, confirms that the regulation is not prescriptive; it requires dealers to set policies and procedures in respect to supervision of accounts, including verification of material changes to client information “such as ... financial situation, investment objectives or risk tolerance” (Part IIA section, para. 5).

However, the language used in Rule 1300.1, Supervision of Accounts, (IIROC, 2015a) and the IIROC Guidance (2012) states that there must be a determination of suitability of each trade and information must be gathered in sufficient detail to meet suitability obligations.

IIROC Guidance (2012) states that a holistic approach must be taken when assessing risk and determining whether an investment is suitable for a client’s account. Further, this holistic approach should include a review of when a particular issuer is undergoing change or when there are significant market events. This provides some clarity but is more focused on the product choice rather than on assessing ‘risk tolerance’.

MFDA

The most prescriptive of all the regulators reviewed is the MFDA. The MFDA Bulletin (2014a) provides a set questionnaire and directs the MFDA member⁹ that if they elect to implement the use of any questionnaire in their KYC process, including the sample provided by the MFDA, the member is encouraged to discuss their plans with MFDA staff before implementing (p. 5). The MFDA repeats this message both at the beginning and at the end of the Bulletin:

[a]ccordingly, if a Member is considering implementing a questionnaire or otherwise making significant changes to their approach to collecting KYC information or assessing suitability, the Member should discuss the proposal with MFDA staff prior to implementation to obtain specific guidance (p.11).

⁸ The CSA may be offering only general comments so that the provincial securities commissions and self-regulatory organizations can be more specific without conflicting with the CSA.

⁹ The MFDA “member” is the dealer and not the advisor.

This is described as ‘guidance’, and though not a requirement, MFDA suggests that using a questionnaire like the one provided by the MFDA is an important tool to promote “structure” and “consistency” (MFDA, 2014a, p.10).

In our interview with MFDA staff, they advised that the MFDA Bulletin questionnaire is considered a “safe harbour” and dealers and advisors using it will be considered compliant as long as the advisor uses the questionnaire properly and with appropriate dialogue. The MFDA Staff emphasized that it is not sufficient to approach the questionnaire as a ‘tick off the box’ exercise.¹⁰

International Observations

Several jurisdictions, most notably UK, Europe, Australia and India, do not prescribe how to design a process, but direct firms to have a clear and robust process. They outline principles to be considered in the development of questionnaires including:

- questionnaires should only be used if they are fit for purpose;
- questionnaires need to identify and deal with those who should take no risk and remain in cash or cash equivalents due to inability or refusal to accept risk of loss of any capital;
- questionnaires are not always properly done as they often use poor/vague questions, the answer options are poor, or they do not have appropriate scoring with inappropriate weighting;
- questionnaires often assume that the client has particular knowledge or experience such as a good level of financial knowledge or mathematical ability and that they are comfortable in applying it;
- one questionnaire might not be appropriate if there are several client accounts because the answers may vary according to the type of account at issue (i.e. lower risk for short term saving and higher risk with longer term savings);
- too few questions coupled with the possibility of misinterpreting an answer results in a greater probability of making an inaccurate assessment;
- the questionnaire only focuses on investment needs rather than a holistic approach to considering whether the client is better off paying debt;
- failure to appropriately account for a client’s capacity for loss;

¹⁰ See item 5 below re: how to answer the questionnaire.

- questionnaires may remove the importance of the skill of an advisor or discretionary manager to consider and evaluate different pieces of information to arrive at a conclusion;
- questionnaires may use arbitrary weightings, which again removes the judgment of an advisor.

However, even with all these concerns most guidance papers do indicate that a questionnaire can be a useful tool to provide structure and promote consistency. These observations are consistent with what is articulated by the MFDA.

4.5.3 Proportionality

The regulatory obligations of advisors and dealers mandate the completion of several forms, which is both time consuming and cumbersome. In respect to the mandated forms, regulations in Canada do not seem to distinguish between a smaller account that might hold a single mutual fund and a larger account that holds several different securities or, an account that holds only a small portion of a client's investments and one that holds the entirety of a client's investments. Regardless of size or proportion, the same number of forms and the same process must be followed. Dealers and advisors may not be able to afford the resources required to meet their regulatory obligations if the account size is small. The introduction of minimum investment thresholds or account sizes will not benefit the investing public who don't meet these business thresholds.

In some other jurisdictions¹¹, the regulators do not insist that all clients require the same amount of attention; a client who has 1% of his or her assets (i.e. \$5,000) with his or her advisor might not need the same detailed KYC, questionnaires, plans and updates, as one who has 100% (i.e. \$500,000) with the advisor and relies on the advisor and dealer to prepare and assist with their retirement plan. Knowing where to draw this line would take some thought and regulatory guidance.

¹¹ See International Observations in this section.

CSA

The CSA (2014) Staff Notice 31-336 requires all registrants to fulfill the requirements of knowing their clients. It specifically mandates that portfolio managers (PMs) and Exempt Market Dealers (EMDs), with an ongoing relationship with their clients, must update KYC information “at least annually”. A list of the information to be collected includes “for example: marriage, divorce, birth of a child, loss or change in employment, or investment needs or objectives” (CSA, 2014, KYC guidance section, para. 1). There is no proportionality suggested.

However, there is some proportionality suggested in CSA (2011) 31-103 CP section 13.2 know your client provisions. In respect to updating client information:

[w]e consider information to be current if it is sufficiently up-to-date to support a suitability determination. For example, a portfolio manager with discretionary authority should update its clients’ KYC information frequently. A dealer that only occasionally recommends trades to a client should ensure that the client’s KYC information is up-to-date at the time a proposed trade or recommendation is made (p. 182).

Furthermore, CSA (2011) 31-103 CP s. 13.3 provides that while Portfolio Managers generally need more information, as they are discretionarily managing an account, there are other cases in which such detailed information may not be required, such as when the registrant only occasionally deals with a client who makes small investments relative to their overall financial position. However, this does not seem to be echoed in the MFDA or IIROC provisions.

IIROC

Rule 2500, Minimum Standards for Retail Customer Accounts Supervision, (IIROC, 2015b) only offers some relief in respect to supervision: it states in Part I c.1 that supervision should be a risk-based approach, considering factors like the size of account.

However, IIROC (2012) Guidance provides, without indicating anything about the amount of trading or the sum or proportion of net worth in the account, that the account information “MUST” (emphasis added) be updated any time there is a material change in a client’s circumstances.

IIROC does not mandate the method by which the account information is obtained or updated, provided that those methods demonstrably achieve the objective of the IIROC Rules. Therefore, IIROC neither mentions nor suggests the use of questionnaires.

MFDA

MFDA (2013) Rule 2.2.1 requires that each advisor know his or her clients. Further, MFDA (2013) Rule 2.2.4 requires updates when there are material changes. Rule 2.2.4(e) requires all dealers to send a written request to clients each year asking them to report any material events. The concern is that the more paper we send to clients, the less likely they are to read all of it.

As discussed above, the MFDA Bulletin and MFDA Staff Notice do not address the issue of proportionality when it relates to questionnaires. Further, the MFDA (2014a) observes that the literature recommends that the questionnaire be filled out again every two to three years (p. 7), without reference to inactive or proportionately small accounts.

International Observations

A number of jurisdictions, including UK, Australia and Europe provide defined treatments for levels of advice to allow for differences based on the scope of the engagement between the advisor and client. This includes the extent of information to be collected from clients (proportionality).

Under Regulatory Guide 244 (2012) for ASIC in Australia, the term “scaled advice” is used. This guide states that:

- the same rules, including the best interests duty and related obligations, apply to all personal advice on a particular topic, regardless of the scope of the advice;
- you must use your judgment and expertise as an advice provider to ensure that the scope of the scaled advice you provide meets your legal obligations, including the best interests duty and related obligations;
- you can adjust the level of your inquiries about the client’s relevant circumstances to reflect the nature of the advice being provided; and
- having appropriate processes in place to guide you when you give scaled advice will help you comply with the law, including the best interests duty and related obligations (p. 19).

The most important observation here is the relevance of the third bullet where the regulator has specifically addressed the fact that the level of inquiries can be adjusted to reflect the nature of the advice. They go on to clarify with:

[o]ne approach you can use when deciding if you can provide a client with a limited scope of advice is to perform a ‘triage’ or filtering process.

For example, we would expect you to ask a series of questions to determine how advice that is limited in scope can be provided to a client in a way that complies with your legal obligations, including the best interests duty and related obligations (p. 22).

In the guidance papers of ESMA (2012), they specifically address the “[e]xtent of information to be collected from clients (proportionality)” (p. 8).

In the UK, Section 9.2.2 of the Conduct of Business Sourcebook (COBS) Handbook (FCA, 2015) references article 19 (4) of MiFID:

A firm must obtain from the client such information as is necessary for the firm to understand the essential facts about him and have a reasonable basis for believing, giving due consideration to the nature and extent of the service provided, that the specific transaction to be recommended, or entered into in the course of managing:

(a) meets his investment objectives;

(b) is such that he is able financially to bear any related investment risks consistent with his investment objectives; and

(c) is such that he has the necessary experience and knowledge in order to understand the risks involved in the transaction or in the management of his portfolio (p. 2, emphasis in original).

We observed that based on observations in Singapore, a simple ‘opt out’ opportunity for the client and advisors to indicate that the engagement is for limited advice only can result in unintended consequences. It is advisable to have more clearly defined constraints on how and when limited advice is appropriate.

4.5.4 Responsibility and the Process of Answering Questions

Responsibility of Advisor/Dealer

Who is responsible to ensure the client’s risk profile is accurate: the client, the advisor, the dealer or a combination? According to MiFiD (Europe), for example, the legal relationship is that the advisor is an agent of the dealer/firm. The ultimate responsibility is stated to be that of the dealer/firm (ESMA, 2012), and the firm has the ultimate responsibility to ensure the risk profile is accurate. In Canada, the ultimate responsibility to ensure trades are suitable is shared between the advisor and dealer/firm. The dealer has stringent supervision requirements (see IIROC, 2015b), yet the model is such that the advisor alone meets with the client to assess his/her risk tolerance.

Are clients responsible?

Is a client responsible for the accuracy of responses to either a KYC discussion or completing a questionnaire? Further, what are the implications of obtaining the client signature on documents?

- (i) Accuracy: The source of client information collected by advisors and dealers is almost exclusively the client. Certain regulators suggest that an advisor should not always accept at face value what a client tells him/her. If the advisor or dealer does not find the client information reliable, should the client be asked for independently verifiable data? How far must an advisor go?¹²
- (ii) Client's signature: The signature on the KYC form is not a regulatory requirement (see IIROC, 2015b) but is a result of dealers compelling it through written internal policies. Dealers want to ensure that the client reviews and agrees that the information on the form accurately reflects the client's information. The challenge with subjective information like a 'risk profile' on the KYC form is that clients do not have a context in which to determine if it is accurate or not. In situations where the risk profile is being questioned, the regulators and judges do not necessarily take the client's signature as confirmation but look beyond the form to determine whether the advisor actually knew the client and whether the facts relating to the client's circumstances at the time of the investments logically leads to the risk level of the investments in the client accounts.

While the client is the source of information obtained by the advisor, and the client might agree that the risk profile is accurate as evidenced by a client's signature, the regulators have not taken this as fact.

While CSA's (2011) 31-103 CP s. 14.2 provides that registered dealers are to encourage clients to keep them up to date and inform the dealer of any changes to risk tolerance and investment objectives, there is nothing to suggest that the client has any responsibility to provide such information. Therefore, the client has no obligation to update the advisor or dealer.

In our interview with IIROC representatives, it was confirmed that while clients have a role to provide true and accurate information, the responsibility to accurately determine the client risk profile is with the advisor and dealer. In the interview with the MFDA, it was suggested that everyone had a role to play,

¹² Regulations require Exempt Market Dealers (EMDs) to independently verify data in certain circumstances whereas IIROC and MFDA do not specifically require it: see 45-106CP Prospectus Exemptions s. 1.9.

including the client, advisor and dealer. The MFDA representatives observed, “it is often hard to get a client to truthfully and completely complete questionnaires”.

While it may be that a client could purposefully mislead the advisor, it is also possible that the client just does not know the answer and, therefore, suggests one without thoughtful consideration. This may not be obvious to the advisor, even if there is dialogue with the client.

The common law in Canada has established that the client has some responsibility, particularly if the client is sufficiently sophisticated to understand the risks associated with investing. Further, there is legislation that permits judges to apportion liability to clients in certain circumstances, which has indeed been applied in securities litigation cases (see Court of Appeal for British Columbia (BCCA), 2014).¹³

Although the regulators in Canada are clear that determining risk tolerance is the responsibility of the advisor and dealer, it is obvious that the source of such information is the client and the advisor needs to collect such information from the client and maintain a paper trail to prove how the information was collected and led to the assigned risk profile. One of the tools an advisor can use to support a paper trail is a questionnaire.

Who should fill out the questionnaire?

Clients

The client should complete certain aspects of the questionnaire, especially those of a subjective nature relating to attitudes or beliefs, without the influence or bias of the advisor impacting the outcome. At the same time, the advisor must review the questionnaire responses with the client, potentially drilling deeper into certain areas. Part of this dialogue will inevitably take the form of ‘education’ or explanation of concepts, which can increase client literacy and reduce ambiguity.

Some of the questions asked in a questionnaire may be too complicated or simply not within the client’s knowledge. Clients may attempt to answer all questions whether they know the answer or not, and the more confident they seem with their answers the less likely an advisor would probe into the accuracy of

¹³ While each province has its own statute, the Ontario act is the *Negligence Act*, RSO 1990 c.N-1 (Ontario, 2004).

the answer provided. Clients may never have calculated their net worth and because of the complexity of estimating the value of some assets (for example, the value of real estate) many clients may not be equipped to provide an accurate answer.

For some questions, there might be dialogue or leading commentary that influences the client's answers. For example, the advisor might suggest what they believe to be the accurate answer for the client, guiding the client to a particular outcome, which may not be accurate. Similarly in a questionnaire, a question may be phrased in a leading manner, coaching clients to particular responses.

Certain regulators (FSA, 2011, p. 12) have expressed the concern that if a client were simply asked to pick a number on a scale of one to ten to determine 'risk tolerance', this would be a poor practice. Definitions may be inconsistent with the client's understanding of the meaning for self-assessment and this may not be consistent with the design of the questionnaire. We believe that a single question, like 'what is your risk tolerance' cannot be answered in a vacuum without appropriate context.

Advisors

Regardless of who fills in the answers to the questions on the forms, the common view among the regulators interviewed was that the advisor must review the questionnaire with the client. In this review the advisor should not simply move quickly from question to question but should have a meaningful dialogue with the client in respect of each question. The advisor must have a deep understanding of the questions asked, including questions that are objective¹⁴ and subjective¹⁵, in order to ensure the client provides thoughtful answers with supportive reasons rather than superficial answers.

Clients may also feel self-conscious about reviewing their answers to questions with the advisor; perhaps because they do not really know the answer. Advisors need to gauge how clients react to the questions being asked to ensure the exercise of completing the questionnaire is taken seriously and answered thoughtfully.

¹⁴ Net worth if it is simple

¹⁵ See question 6 in MFDA questionnaire (MFDA, 2014a, p. 13). How a client perceives his or her financial situation, which is subjective, and may depend on his or her experiences as well as be influenced by the relative financial situation of others who the client is surrounded by. For example, the client has saved \$2,000,000 for retirement and has no debt, which many would say is significant savings (answer would be 'v') but the client's brother has saved \$5,000,000 so the client doesn't perceive her savings to be significant so she answers 'iv'.

IIROC

The IIROC (2012) Guidance directs advisors to explore answers clients provide in respect to risk tolerance (p.4) in relation to the items above. This suggests that clients' answers should not always be taken at face value, as clients may not have considered aspects that the advisor, as a professional, might know are important.¹⁶ The advisor and dealer must inquire into the client's answer to time horizon questions, to ensure accuracy, and ensure the choice of answer to the time horizon question provided in the NAAF is consistent with other client information.

MFDA

The MFDA acknowledges that a questionnaire is optional, however, has expressed their concern that a 'check the box attitude' by advisors would be insufficient when questionnaires are used. The MFDA stated in its interview that checking off the box without dialogue would not meet their regulatory requirements. If the advisor has his/her own effective process to get to know their clients and they keep proper notes, then the advisor will likely perceive the questionnaire to be superfluous.

A major challenge is how can an advisor integrate the results of the dialogue into the results of the questionnaire in which all answers are weighted? For example, the dialogue might lead the advisor to conclude that one aspect, for example risk capacity, is more important than any other aspect. If the questions are fix-weighted on a pre-determined basis, how can the advisor ensure that the results of the questionnaire reflect the client's expressed concerns through the dialogue? How can the exercise of completing a questionnaire integrate the results of the dialogue and value the importance of an advisor's professional judgment?¹⁷

International Observations

The FCA's 2011 Guidance provides that:

[p]art of the skill of an adviser or discretionary manager is considering and evaluating different pieces of information to form a recommendation for the customer. It involves weighing up the advantages and disadvantages

¹⁶ See professional judgment and experience item 4.5.5 below.

¹⁷ This is further explored in section 4.5.5 below.

of alternative solutions by making trade-off decisions that best meet a customer's investment objectives and reflect their financial situation (p. 14).

FCA (2011) Guidance also observes that firms must have clear methods to mitigate the limitation of tools used in their KYC process. As will be discussed in section 6 of this document, within Canada, and even in the sample questionnaire in the MFDA (2014a) Bulletin there are no observable methods to allow an advisor to adjust the results of the outcome of a questionnaire to arrive at the 'risk profile' they feel most appropriate for the client. As a result, advisors may try to adjust the answers to generate the desired outcomes, which would render the completion of a questionnaire an exercise of futility.

4.5.5 The Judgment of a Professional

Advisors, as professionals, are charged with the responsibility of applying sound judgment. The challenge with a questionnaire in which the result purports to determine a client's risk profile is that the advisor's judgment may not form part of the exercise or numerical result.

This portion of the paper examines how the judgment of an advisor is considered and reflected by IIROC, MFDA and the common law in Canada. Although we must review the standard of care of an advisor needed to accomplish this task, the purpose of this paper is not to judge whether the standard is appropriate, but rather relates only to how an advisor should apply his or her judgment as required by law.¹⁸

IIROC

IIROC (2015a) Regulation 1300.1(o) addresses the dealer's, not the advisor's standard in respect to suitability, in that the dealer "...shall use due diligence to ensure that the acceptance of any order for any account is within the bounds of good business practice" (section 1300.1.o, para. 1). Further, the IIROC (2012) Guidance provides that the obligation of the "Dealer Members and their representatives [is] to deal fairly, honestly and in good faith with clients" (p. 1) and "to update [KYC] information at the

¹⁸ Furthermore, we will not examine the issue of fiduciary duty, as this is not the subject matter of this paper, even though this paper applies to the use of questionnaires by Portfolio Managers for whom the standard is that of a fiduciary.

time of material change” (p.2). This provision directly addresses the obligation to determine a client’s investment objectives and risk tolerance.

IIROC provides a New Account Application Form (“NAAF”) (Form 2) (IIROC, 2012), however the MFDA does not. The NAAF is the minimum requirement for advisors. The IIROC (2012) Guidance sets out that the collection of risk tolerance information “should be sufficiently precise to enable the Dealer Member and the Registered Representative to meet their suitability assessment obligations” (p. 2). As stated above¹⁹, the IIROC (2012) Guidance provides that the risk tolerance and investment objectives are two factors that must be assessed “based on the client’s financial and personal circumstances and must be reasonable in light of those circumstances” (p. 4).

The standard of reasonableness is reflected in the common law of Canada. The long standing case that has been referred to and followed in Canadian jurisprudence is the decision of *Rhoades v. Prudential Bache* (BCCA, 1992), CanLII 658, in which it was held that:

[i]n such circumstances a financial advisor must be taken to assume duties similar to those of any other professional advisor--doctor, accountant, engineer, lawyer--in the sense of being obliged to take reasonable steps to ensure that customers or clients are aware of the available options, and of the main potential benefits and risks associated with them. Considerable discretion is, of course, allowed to the professional advisor in deciding, as a matter of judgment, on the nature and scope of the advice appropriate to any case. When called on to account the advisor is not, of course, answerable as “guarantor”, “custodian” or “insurer”-- the terms used by counsel for the appellants in this case--but only to show that he or she reasonably applied the skill and care appropriate to the task undertaken and to the circumstances of the case (p. 11).

This decision confirms that advisors are held to the same standard of care as other professionals and must apply their judgment appropriately in each case. While some professionals use questionnaires as a tool to assist with understanding the client, the concept of applying the questionnaire in isolation without also applying judgment seems to remove professional judgment from the exercise.

None of the regulators interviewed suggested that the questionnaire be used in a vacuum. Those regulators that recommended the use of a questionnaire stated that it was a tool, not to be used in isolation and that dialogue remained very important. A likely reason for the emphasis on the need for dialogue is that advisors are indeed professionals and must apply their judgment to identify the overarching issues that may influence the determination of clients’ risk profiles. While advisors and

¹⁹ See section 4.5.1.

dealers should examine each of the answers to the questions in the questionnaire completed by each client, at the end of the day it is the advisor's judgment that must be applied that may change the 'risk profile' on the NAAF.

We believe that a key issue on the application of professional judgment relates back to the lack of clarity of definitions. The academic literature suggests that the propensity is for advisors to set the risk tolerance higher than appropriate and there are scientifically proven methods to help measure these attitudinal factors. At the same time, the literature shows that there is no body of knowledge to help understand how to combine both objective and subjective factors to arrive at a 'risk profile' and that the professional judgment of the advisor is key in this regard.

MFDA

While the MFDA has been the strongest proponent of the use of a questionnaire, it also acknowledges the importance of the advisor's judgment: "deeper discussion ...is where the experience and knowledge of an Approved Person can add real value for clients" (MFDA, 2014a, p. 1).

The MFDA suggests that if the result of the questionnaire is different than what the advisor, after applying his or her judgment, places on the NAAF, the advisor needs to have a paper trail explaining the divergence. Perhaps the more reliable the questionnaire, the less adjustment the advisor will have to make when applying his or her judgment.

In respect to the 'risk need' category, the MFDA does not include a question to reflect this category in its questionnaire, other than as reflected by time horizon. Although it is acknowledged by the MFDA (2014a) that risk need is one of the components in determining a client's overall risk profile, MFDA staff, during the interview and in their (2014a) Bulletin state that the aspect of 'risk need' should not be an overriding factor, as "Approved Persons should not override the risk a client is willing and able to take on the basis that the client's needs or return expectations cannot be met by the selection or profile associated with their questionnaire responses" (p. 6).

International Observations

Every regulator we reviewed clearly understood the role of the advisor and that the assessment of risk profile was a complex process with no ‘prescribed’ formulas to apply.

They acknowledged that the skill of an advisor or discretionary manager is necessary to evaluate the different pieces of information and formulate a suitable recommendation for the client. In the UK, FCA’s January 2011 guidance provides:

[t]ools can usefully aid discussions with customers, by helping to provide structure and promote consistency. But they often have limitations, which mean there are circumstances in which they may produce flawed results. Where firms rely on tools they need to ensure they are actively mitigating any limitations through the suitability assessment and ‘know your customer’ process (p. 3).

As will be discussed in section 6 of this document, few questionnaires contemplate any capability for an advisor and client to account for the advisor’s judgment so that this is incorporated into the results of the questionnaire.

4.5.6 Reckless Conservatism

As outlined in the literature review, ‘reckless conservatism’ is when investment decisions do not properly integrate the consequences of the decision into the client’s goals. The advisory process between client and advisor is designed to help the client understand the trade offs between making sacrifices today (reduced lifestyle to save more money), arriving at a level of risk the client is willing and can afford to assume (to help investments accumulate) and expectations of lifestyle in the future (will the client achieve a lifestyle that is acceptable). The process of communication between advisor and client should help the client understand these factors and arrive at the client’s accurate risk profile, also reflecting his or her risk need.

In the interview with IFIC staff, they observed that many financial advisors or financial planners take a more holistic approach to assisting clients with the achievement of their goals. As outlined in the definitions of the elements of a risk profile at the outset of this paper, ‘risk need’ is an important factor for consideration by the client and the advisor.

In other words, investment risk and savings risk must be considered together on behalf of the client. To ask the client to make a decision about investment risk, without providing a clear understanding of its

relationship to the client's goals, may be sufficient to meet the regulatory standard required for general investment suitability, but may not be in the client's best interest.

Thought must also be given to the risk assigned to clients when dealers and their representatives who purport to provide holistic advice assign a client a risk profile based on risk tolerance alone with no regard given to risk need. There are real dangers in building and implementing portfolios for clients that have no reasonable chance of allowing the client to reach his/her goals.

As outlined in Section 4.5.5 above, the MFDA states that risk need should not be an over-riding factor when determining the risk profile. If a client falls short of achieving their goals, 'prescribing' a course of action that precludes considering taking on a risk commensurate with the client's need (when properly discussed and documented) serves to remove the capacity for professional judgment by the advisor and informed consent by the consumer.

4.6 Summary and Recommendations from Regulatory Review

An effective tool or process cannot be built without a clear regulatory framework that includes all aspects of risk in its definition. Accordingly, it is recommended that regulators set out and define each of the different components of risk that they expect advisors and dealers to examine and review with their clients in order to establish a client's risk profile. Only after the different components are defined can advisors gain an understanding of what needs to be explored.

Given limitations in combining risk factors, the process of risk profiling must include mechanisms to allow the advisor to adjust and document alterations to the client risk profile that diverge from the questionnaire results. The regulator must provide leeway for advisors to work with clients and arrive at an appropriate risk profile. Limitations restricting advisors and clients from considering achievement of goals as an important, but not an overriding factor may not be in the client's best interest.

We commend the MFDA on its initiative and effort to provide more guidance and a sample questionnaire. That said, the sample questionnaire makes prescriptive assignments of the relative importance of investment knowledge versus time horizon versus risk capacity versus risk tolerance, and

as outlined in the literature review this is a matter of ‘professional judgment’. It will be important for the MFDA to remain flexible as new research becomes available concerning the development and analysis of questionnaires. Most regulators address an issue such as risk profiling every few years (if that). Applying a prescriptive guidance in a field undergoing dynamic research and change requires greater monitoring.

Without a concept of proportionality, there is a greater chance that smaller accounts will not be opened by advisors who may have the additional obligations of completing a questionnaire for clients at the time the account is opened and then again every two or three years. Alternatively, by making a questionnaire mandatory, especially for small accounts, it may lead to advisors completing the task superficially, just to meet the perceived requirements. Regulators may believe that a principles based approach on KYC obligations permits dealers to apply concepts of proportionality; however, clearer guidance in this area may allow advisors and dealers to provide advice and service to smaller accounts in a more cost-effective manner, while still meeting their obligations.

5.0 Solution Providers

5.1 An Overview of the Marketplace

Over the past decade, regulators worldwide have introduced policies, rules and regulations that require financial intermediaries to comply with minimally accepted suitability requirements when providing investment (and in some cases, general financial) advice to non-institutional clients. A key element of this regulatory movement is a requirement that firms and advisors gauge a client's risk profile, which is broadly defined as a person's capacity, emotionally and financially, to take on risk. Interestingly, few regulatory agencies have taken direct steps to prescribe how firms should measure and evaluate risk profiles. Instead, the regulatory stance has tended to be one that encourages innovation within the investment advisory community. In response, several commercial firms have entered the marketplace to help advisory firms estimate the general risk attitude of clients. The purpose of this section of the research is to review the offerings of these market participants in an attempt to determine commonalities and differences in risk profiling.

As outlined elsewhere in this paper, an individual's risk profile is assumed to be a combination of objective and subjective attributes consisting of a set of relatively stable parameters people consider when evaluating risky financial choices (Nobre and Grable, 2015). Within the context of this definition, objective factors tend to be elements that can be measured quantitatively. Examples include an individual's capacity to incur financial losses and the time horizon associated with the accomplishment of a financial objective. Subjective factors, on the other hand, include concepts such as risk perception and risk preference, both of which are based on idiosyncratic evaluations of the riskiness of a situation or choice.

As the importance of subjective risk taking factors emerged in the academic literature, few financial intermediaries were willing (or able) to undertake the momentous requirements necessary to create and validate subjective risk assessments. Instead, firms simply added generalized subjective risk questions to their already existing objective measures. Questions such as "If the stock market were to fall 20 percent in the next six months, what would you do?" or "What percent of your portfolio would need to be lost in order to lose sleep at night?" were thought to be sufficient to gauge subjective risk attitudes. Risk researchers were quick to point out that questions such as these—those that rely on a client's projection

of future behaviour—are not particularly effective at predicting actual behaviour. It was at this point in time (continuing to the present) that several risk profiling firms entered the marketplace to help financial advisors and some financial intermediaries navigate the complex requirements associated with risk profiling.²⁰

5.2 The Current Marketplace

As shown in Figure 10, risk profiling providers can be categorized into one of three groups. The categories of firms shown in Figure 10 were developed based on interviews with firm personnel and evaluations of firm marketing materials. It is important to acknowledge that when asked, nearly every firm stated that they were, at the time of the interview, engaged in the business of risk profiling.

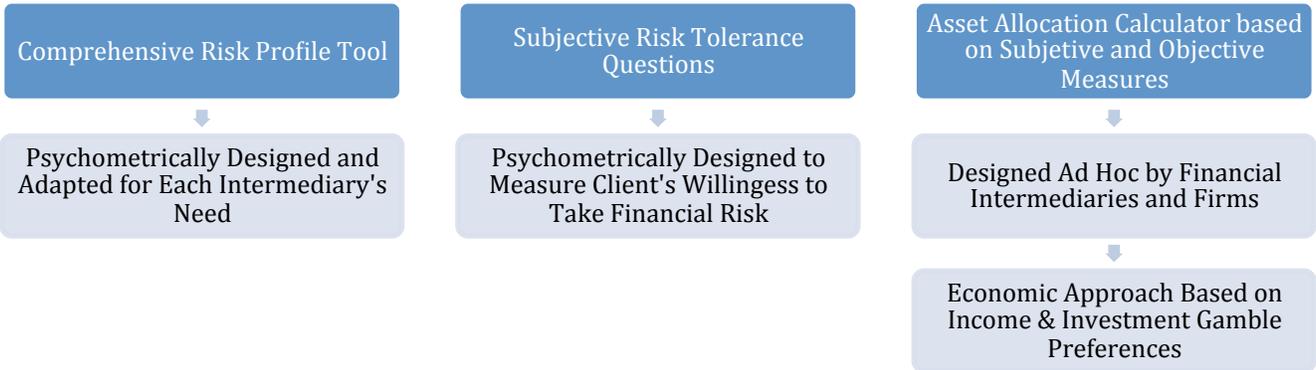


Figure 10: Three Marketplace Approaches

The first includes firms that provide comprehensive risk profiling systems. That is, firms that provide a combination of objective and subjective measurement tools (and other questionnaire items as needed by financial advisors and intermediaries) that are used to derive a risk profile score. Among the firms operating in this category, all stress that the risk profile score is intended for use only as a starting point in matching a client with an appropriate product or service. The role of the financial advisor is instrumental to the delivery and usefulness of these tools.

²⁰ Most large investment intermediaries created and continue to use their own risk profiling systems. These systems are established to fulfill regulatory and compliance needs rather than to create valid predictions of financial behaviour. Risk profiling firms tend to work with smaller intermediaries and investment advisors directly—those that do not have sophisticated compliance departments or large legal staff.

A second category of risk profile providers can be identified by their focus on subjective risk tolerance measurements. These firms use psychometrically valid questionnaires designed to measure what researchers generally call risk tolerance, which is most closely related to an individual's willingness to engage in a financial behaviour in which the outcome is both unknown and potentially negative. It is important to note however, that each firm in this category describes their assessment tool using various terms, including risk appetite, risk preference, and risk attitude. Unlike firms offering comprehensive risk profiling tools, those in the category of firms providing subjective risk tolerance questions focus more narrowly on subjective risk attitudes. In other words, while this second category of firms agree that objective indicators of risk taking are necessary when building investment portfolios, they argue that including objective measures into attitudinal assessments creates instability in scores, which leads to low generalizability and low validity. The intent of risk tolerance questionnaires, as described by firms in this category, is to provide financial advisors with a baseline predictive insight into future client behaviour; it is then up to the financial advisor to incorporate objective indicators into recommendations.

The third category of provider falls under the broad term of asset allocation calculator. Firms operating in this segment of the market are focused on evaluating client answers to a series of income and/or portfolio preference questions, creating a risk score, and then matching that score to a historically appropriate portfolio. One of the leading firms in this category created its questionnaire on an ad hoc basis. Over time the firm was able to track risk scores and identify the ultimate behaviour of investors. Based on these data, the firm helps advisors match clients to portfolios that provide appropriate risk and return characteristics. A new firm has entered this marketplace by adapting a traditional economic approach using income and investment choice-option scenarios to obtain a subjective discount rate for each client. Scores are then derived and matched to portfolios that historically and theoretically never fall below a client's discount rate expectation. The firms that operate in this segment of the marketplace are interested in providing turnkey portfolio solutions for advisors and investment intermediaries, rather than risk profiling or risk attitude scores, which are later incorporated into portfolio or financial decision-making models. Many online financial intermediaries find this approach attractive.

5.3 Observations of Current Products and Providers

Firms generally did not self-identify as offering only a subjective risk tolerance measure or an asset allocation calculator. This reinforces a significant regulatory problem within the financial and investment advisory community: a lack of unifying definitions. Some firms and regulators, for example, define a risk profile as a person's emotional capacity to assume risk. If true, then questionnaires that measure subjective risk attitude are both appropriate for and in compliance with regulations. Other firms and regulators conceptualize a risk profile more narrowly to mean a tool for investment compliance and client suitability. For those with this perspective, a risk profile should include both objective and subjective evaluations. If true, then only firms operating in the comprehensive risk profiling category can be said to truly match this definitional framework. Still other firms and regulators argue that the actual definition of a risk profile is less important than ensuring that risk scores are appropriately matched to portfolios that are suitable. Whereas risk profiling and risk attitude measures can encourage insights, discussions and evaluations by the financial advisor, the use of an asset allocation calculator implicitly reduces the need for qualitative advisor input. Until policy makers, working with practitioners and researchers, agree on basic definition frameworks, it will be difficult for firms providing risk assessment solutions, financial advisors or investment intermediaries to know if they are truly in compliance with regulations.

The lack of definitional clarity can be seen in the types of questions asked in the questionnaires designed by solution providers. Although some firms were unwilling to share their questions or methodologies for score estimation, a number of firms did provide question samples. These questions were combined into a summarized list, and several risk-tolerance researchers, all of whom were engaged in risk-tolerance research at the time of the study, were then asked to place each question into one of the six major elements of risk outlined under Section 2²¹. The purpose of the categorization process was to determine if items could generally be classified by consensus.

1. *Risk Tolerance*: the willingness of the client to take on risk. It can be defined through their attitude towards risk and is often described as a high/low risk tolerance.
2. *Risk Capacity*: the financial ability of a client and their capability to endure any potential financial loss. Does the client have the financial ability to afford to take on the risk?

²¹ The definitions were obtained from Nobre and Grable (2015) and Carr (2014).

3. *Risk Preference*: recognized as the client’s “gut feeling” towards or against taking a specific risk. There may not always be justification for the reaction felt towards the individual’s feelings regarding their preferences.
4. *Risk Perception*: a judgment that the client feels towards the severity of risk. It implicates the individual’s assessment towards their riskiness of a considered decision.
5. *Risk Composure*: measured based on a client’s past decisions. It can reasonably be assumed (with no major life changes) that the client’s behaviour towards risk can aid in developing a gauge for future decisions.
6. *Risk Need*: the amount of risk that should be expected in order for a client to meet a specific financial goal.

The types of questions contained in questionnaires, when viewed across solution providers, were diverse. Questions related to risk perceptions dominated the summarized list. This was followed, in order, by risk composure, risk tolerance, risk preference, risk capacity, and risk need. It is important to note however, that the researchers evaluating the questions were only able to reach agreement on the category to which a question should be assigned approximately 50% of the time. Other questions were classified into more than one definitional category. From a psychometric questionnaire design perspective, this result indicates a somewhat problematic approach to question conceptualization and questionnaire implementation across solution providers.²² From a practical point of view, the variability in question interpretation may indicate a relatively low level of validity for some questions or risk profiling methodologies.

5.4 Theoretical Considerations

The number of solution providers operating worldwide is relatively small—realistically, ten or less. Of these firms, including the ones interviewed for this project, three document the psychometric validity of their questions and questionnaire design. One firm’s approach fell outside the realm of traditional psychometric scale design procedures, as its model was designed with traditional and behavioural

²² Questions from firms that indicated use of classical test theory as a basis for questionnaire design were less likely to have items classified in multiple definitional categories.

economic theory as the theoretical foundation. The remaining firms appear to use an ad hoc approach to question design and questionnaire administration. This helps explain why the majority of firms willingly commingle subjective and objective assessments of risk tolerance, risk preference, risk perception, risk choice, risk capacity, and time horizon into single questionnaires. While the intent of this approach is worthwhile—to help financial advisors match firm products and services to a client in a suitable manner—this ad hoc approach does give rise to a few theoretical concerns, outlined below.

Of primary concern is the working assumption underlying most models of risk assessment that an investor's risk profile is thought to be defined by three factors: (1) the client's perceptions of risk (i.e., general attitude toward risk taking), (2) the client's capacity to incur loss should losses occur, and (3) the client's investing time horizon. Each solution provider weighs these inputs differently to arrive at a risk profile score, but in general, someone who is comfortable with risk, and exhibits a stable income and wealth situation, and has a long investment time horizon would receive a high risk profile score. The risk profile score would then be used as a suitability measure, which may or may not be discussed with the client. At issue is which factors should be included in a risk profile score. If it is theoretically sound to include say, time horizon into the estimate of a risk profile score, some might ask why other variables, such as age, gender, and marital status, are not included as well. Of course, the reason is that these factors are not correlated to or predictive of the degree to which someone is willing to engage in a financially risky behaviour, which is related to a person's emotional capacity to take risk.

It does appear that the majority of solution providers have defined the concept of a risk profile strictly within the domain of investing and portfolio management. While it is true that a retail investor's time horizon is important in determining the types of investments included in a portfolio, time horizon is often of little conceptual importance in shaping a person's willingness to take other types of financial risk. Consider a typical borrowing choice: assume a client engages the services of a financial advisor to help decide between two line of credit alternatives. Is the client's *investment* time horizon relevant to this choice? In most cases, the answer is negative. And herein lies a potential problem with the way risk profile scores are predominately estimated: if a risk profile score includes factors such as time horizon, then the score itself becomes less relevant for decisions that do not involve an investment choice.

This issue has important policy and regulatory implications. If it is assumed that a risk profile score is going to be used solely for investment product and service purposes, then using a model that derives a score based on attitudinal, capacity and time horizon inputs may be appropriate. However, if the regulatory intent of requiring financial advisors to gauge risk tolerance or a risk profile is to ensure suitability across a financial advisor's scope of practice, then the predominant model used by solution providers incorporating time horizon may be inappropriate.

Assuming that the regulatory intent of risk rules and guidelines is to ensure that an advisor understands a client's willingness to engage in financially risky behaviour, then a traditional psychometric approach to attitudinal assessment offers the best means of valid assessment. In this case, it makes sense that the risk profile score be replaced with a risk tolerance score. The risk tolerance score, which is primarily attitudinal in nature, provides a basis for framing financial discussions and recommendations. The role of the financial advisor then shifts from matching a client to a portfolio or service based on a risk profile score to using factors such as risk capacity, knowledge, experience and, if appropriate, time horizon, into client-centered models designed to address each client's unique financial questions and concerns.

If, on the other hand, the regulatory perspective is truly focused on investment suitability, a financial risk tolerance score will be insufficient to ensure a proper investment fit. In this case, products offered by current solution providers likely do an adequate job of profiling investors. It is important to note however, that there is insufficient data or firm disclosure to comment on the validity of current practices. Only a handful of firms have historical data that includes both bull and bear market cycles, and of these firms, only two that were reviewed for this analysis were willing or able to share validity and reliability data.

5.5 Summary of Solution Provider Assessment

The following observations summarize the market review of solution providers:

- the number of solution providers is relatively small;
- there is very little transparency among solution providers in the way risk profile scores are derived;

- reporting about the validity and reliability of questions and questionnaires is problematic among service providers;
- standard definitions of key terms are lacking, which has resulted in confusion among solution providers, financial intermediaries, and financial advisors;
- lack of regulatory specificity has caused nearly all solution providers to define risk profile scores from an investment perspective rather than a broader financial planning point of view; and
- in general, the lack of standardized assessment requirements and definitional frameworks means that it is nearly impossible to determine an industry best practice.

Financial advisors would be well served if regulators would:

- standardize definitions related to risk profiles and risk tolerance; and
- provide clarification regarding the intended purpose of assessing client risk attitudes.

Taking action on these two measures would allow solution providers to tailor their product offerings to match the needs of financial advisors and regulators. For example, several firms would need to re-conceptualize their scoring methods if a risk profile (risk tolerance) assessment was defined as a general evaluation of a person's willingness to engage in a financially risky behaviour, rather than as investment behaviour. In addition, regulatory and definitional clarification would help financial advisors use risk profile scores more effectively by providing guidelines on what a score is (and is not) intended to measure.

In summary, financial intermediaries and financial advisors are currently working in an environment where it is prudent and legally necessary to know their clients' financial, attitudinal, and emotional situation prior to making recommendations. Although the regulations are clear in this regard, the lack of specificity in describing best practices in assessment has left a void in the marketplace. Several solution providers have entered the market in an attempt to help financial advisors meet suitability requirements. While each solution provider is working towards the same goal, each firm's product and service mix is different. In general, few of the products being used by financial intermediaries and financial advisors would meet the rigorous demands of psychometric testing. This does not mean that the solution providers or firms are doing a poor job in assessing client risk profiles. Instead, what this means is that

the lack of regulatory guidance on risk profiling has resulted in an eclectic approach to risk profile evaluations.

6.0 Review of Current Practices in Canada

To understand the current effectiveness of the use of risk profiling tools in practice in Canada as well as the quality of the tools or questionnaires we took three different approaches.

First, we created a survey directed to licenced investment advisors with a series of questions to determine, from their perspective, if they had a standard questionnaire for their firm, if the use of the questionnaires was mandatory within their firm, and does the firm provided oversight and training in using the questionnaire. We inquired how many clients they estimated had completed such a questionnaire and how often they were reviewed. We also asked some general questions to try and understand the licenced channel they were with, demographics of their clients and other information in order to allow for a more detailed analysis.

Advisors self-categorized as one of the following six channels:

- Credit Unions (MFDA and/or IIROC),
- Retail Bank Mutual Fund Reps (MFDA),
- Bank Owned Stock Brokers (IIROC),
- Non-Bank Owned Stock Brokers (IIROC),
- Mutual Fund Dealers (MFDA) and
- ICPM/Discretionary Portfolio Manager.

This survey was as widely distributed in the Canadian financial services sector as possible with notifications provided in bulletins or emails by most SROs, membership groups, professional associations of financial planners and advisors, and through the media with invitations for advisors to participate and complete the surveys.

Second, a survey that was substantially identical to the one provided to the advisor community was provided to firms and their compliance departments. The intent was to determine the level of concurrence between advisors and firms. We also included some additional questions about the firm's

risk tolerance questionnaire (if one existed) to determine how it was constructed and if it had been validated²³ in any way.

The third approach to the research was to analyze or review risk profiling questionnaires that were in use in the field.

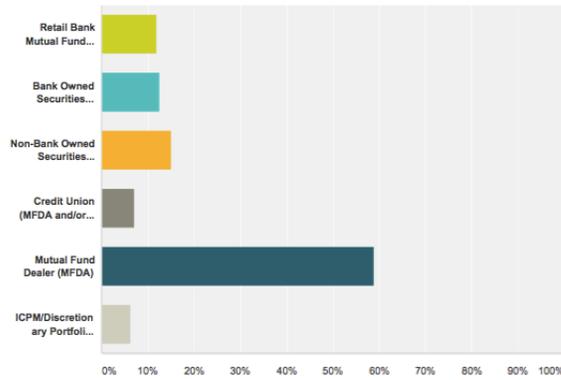
Our original approach, in order to ensure a broad sample, was to randomly select five firms within each of the six sectors outlined above, for a total of 30 firms. When we tried to implement this approach, many firms opted out or failed to respond to our outreach. We concluded a random selection process would not work. We changed our strategy by:

- inviting any firm that wished to participate to provide their risk profiling questionnaire to us;
- searching the internet for questionnaires by Canadian firms that were publicly available; and
- walking into branches or offices of financial institutions or independent dealers and asking for a copy of their risk assessment questionnaire.

6.1 Survey of Advisors

Surveys were completed by 338 advisors. A copy of the questions and responses is attached to this report as Appendix F. All responses are anonymous. We removed advisor responses where the advisor only serviced institutional clients or had incomplete responses.

²³ As an example, Cronbach's alpha is used as an estimate of the reliability of a psychometric test.



Answer Choices	Responses	Count
Retail Bank Mutual Fund Reps (MFDA)	11.83%	40
Bank Owned Securities Dealer (IIROC)	12.43%	42
Non-Bank Owned Securities Dealer (IIROC)	15.09%	51
Credit Union (MFDA and/or IIROC)	7.10%	24
Mutual Fund Dealer (MFDA)	58.88%	199
ICPM/Discretionary Portfolio Manager (IIROC/OSC)	6.21%	21
Total Respondents: 338		

Figure 9: Distribution of survey responses by industry sector

Overall the responses appeared to be a good representative sample of the Canadian marketplace:

- 85% service individuals and 14% service both institutional and individual clients;
- 70% were MFDA (mutual funds) and 30% were IIROC or ICPM (stock & bond) channels;
- 51% were with firms under 25 reps, with distribution of firm size up to 2,500 advisors; and
- 60% of respondents serviced between 100 and 500 clients, with 22% serving smaller client bases (high net worth) and 18% serving more than 500 clients.

6.1.1 Firm standard questionnaires



Figure 12: Does your firm provide a risk questionnaire?

52.6% of advisors said their firm has a standard questionnaire, while 39% said this is left to the advisor. This distribution was almost identical to the response on the firm survey. We looked deeper into this metric and determined that:

- The number of MFDA advisors indicating they had a firm standard questionnaire was proportionate to their participation in the survey.
- 69.2% of bank MFDA channels and 60.9% of credit unions indicated there was a corporate standard questionnaire.
- Only 48% of independent MFDA dealer firms had a firm standard questionnaire. This was the largest group of respondents to the survey.
- 46.9% of non-bank IIROC advisors indicated they had a standard questionnaire.
- 40% of ICPMs had a standard questionnaire

Q7 Is the risk questionnaire mandatory or optional to assess a clients risk tolerance?

Answered: 328 Skipped: 168

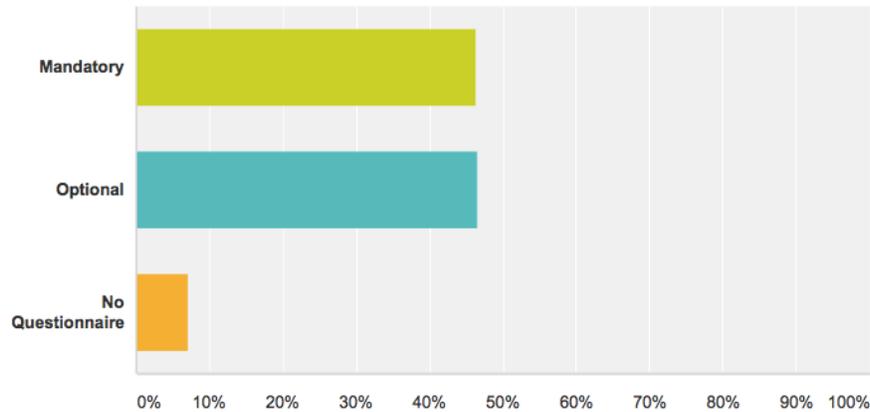


Figure 13: Is the risk questionnaire mandatory?

45.8% of advisors said the questionnaire is mandatory and 46.6% said it is optional. This distribution is almost identical to the same question on firm standard questionnaires. We found that:

- 69.2% of bank MFDA advisors indicated their questionnaire was mandatory;
- 65.2% of credit unions indicated the risk questionnaire was mandatory;
- 28.6% of non-bank IIROC firms had a mandatory questionnaire; and
- 42.2% of independent MFDA advisors had a mandatory questionnaire.

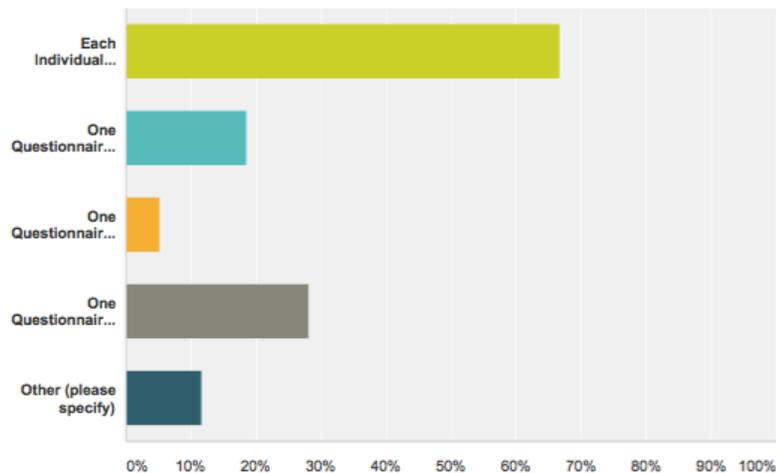
52.8% of advisors said there is no oversight of questionnaires completed. Only 28.2% of MFDA bank and 34.8% of credit unions said they were not monitored. Independent IIROC (65.3%) and MFDA dealers (59.6%) indicated risk profiles were not monitored.

In most cases, the responses of advisors and their firms were consistent, however in this case 38% of firms said there is no oversight while 62% said there was oversight on questionnaires. In other words, 15% more firms than advisors stated that the questionnaire is monitored. This could be a matter of interpretation where advisors felt the question referred to regular monitoring and firms interpreted this as spot reviews.

6.1.2 When are questionnaires used?

Q14 Do you use the risk tolerance questionnaire for: (Please select all that apply).

Answered: 301 Skipped: 195



Answer Choices	Responses
Each Individual Client	66.78% 201
One Questionnaire for a Couple Together	18.60% 56
One Questionnaire for a Family	5.32% 16
One Questionnaire for Each Account	28.24% 85
Other (please specify)	11.63% 35
Total Respondents: 301	

Figure 10: What do you use the questionnaire for?

When it comes to how questionnaires are used, we allowed users to select multiple occasions when they used a questionnaire. Again this response was almost identical to responses from the firms. The lack of clarity on risk tolerance versus risk profile may account for why advisors use questionnaires at multiple stages in the process, since risk tolerance is an attitudinal attribute of an individual (not a family, couple or account), whereas a risk profile includes considerations unique to the investment objectives for those funds.

Q15 For what percentage of your clients is a risk tolerance questionnaire completed:

Answered: 301 Skipped: 195

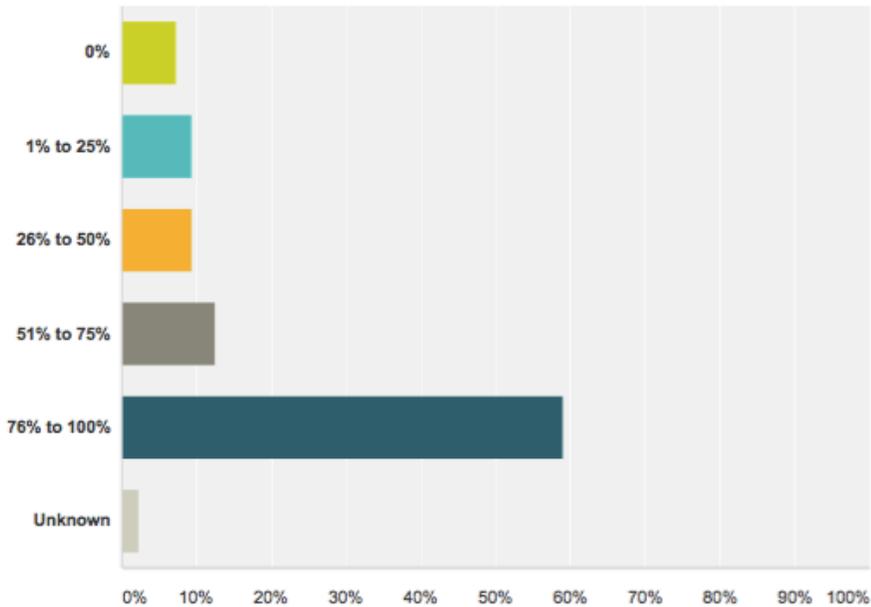


Figure 11: For how many clients is a risk questionnaire completed?

When asked what percentage of their clients would have completed a questionnaire, almost 53.4% of respondents indicated that between 76% and 100% of their clients had a risk profile completed. Interestingly in this case:

- Bank MFDA channels responded similar to the overall average;
- Credit unions had the highest completion rate at 69.6%; and
- Independent IIROC were lower at 49% and ICPMs at 45%.

Q16 How frequently is the risk tolerance questionnaire updated for each of your clients:

Answered: 301 Skipped: 195

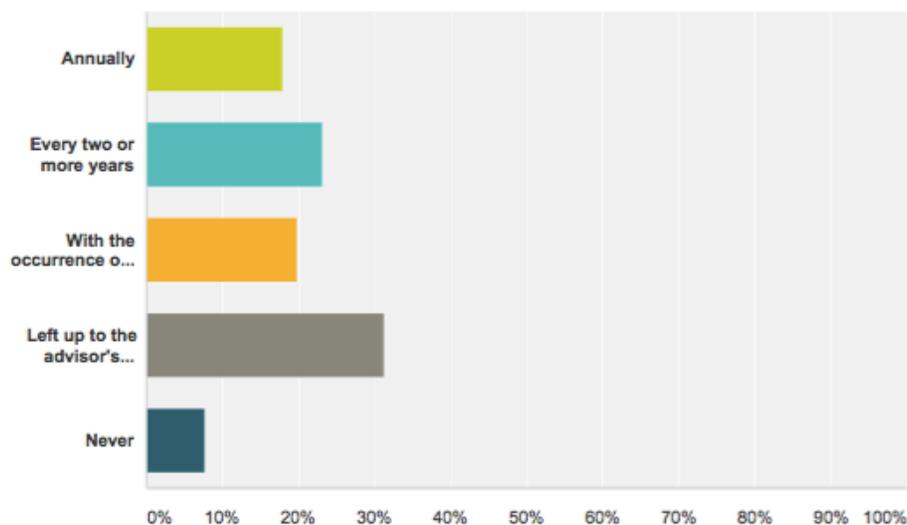


Figure 12: How frequently is the risk questionnaire updated?

Advisors were asked how often these questionnaires were reviewed and again responses were in line with responses from the firms. Reviews were, for the most part, left to the advisor's discretion, but a notable number of responses indicated review occurring on 'life events', 'annually' or 'every 2 or more years'. The data is as follows:

- 17.3% said annual reviews, with IIROC the highest at 32.5% and MFDA dealers the lowest at 11.6%;
- 29% said it was left to the discretion of the advisor with 35.9% of independent MFDA advisors selecting this option;
- 6.2% said they were never updated, with no credit unions and only 2.6% of bank MFDA responding this way. Bank IIROC and ICPMs were at 10% for this response.

6.2 Survey of Firms

The compliance departments of firms completed a similar survey with an identical set of questions. A total of 43 were completed. Institutional investment channels were filtered out of the results.

In most cases, the firm responses were consistent with the advisors' responses. One difference was that firms indicated more oversight or more training than the advisors suggested existed in their responses.

55% said they have a standard firm questionnaire that is mandatory, while 38% say they leave the selection of questionnaires up to the advisor - almost the exact same responses as the advisor surveys.

Only 12% of firms indicated they had different questionnaires for different lines of business, while 21% of advisors indicated they did. This could be due to advisors who are both insurance and investment licenced, thereby having multiple questionnaires, whereas firms likely responded based on their specific area.

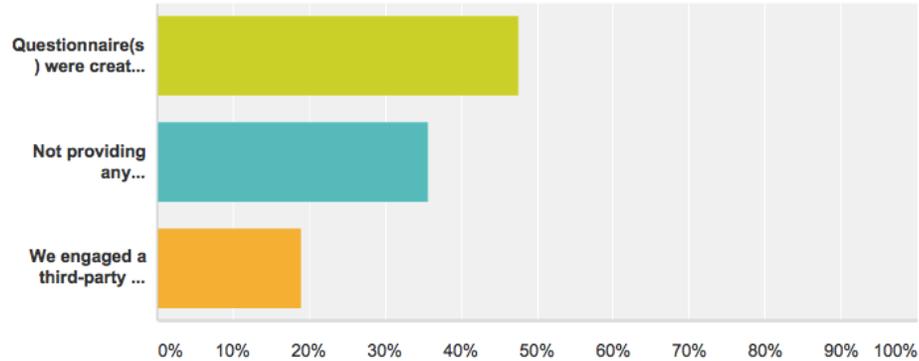
There was a wider variation on the question "are questionnaires mandatory?" where 16% of firms said they were optional and 30% said they had no questionnaire. In comparison, 47% of advisors said questionnaires were optional and only 7% said there was none.

On the question of firm audits or checks concerning the use of questionnaires, 60% of firms indicated there were checks by the firm, while only 47% of advisors indicated there were checks on the use of questionnaires. In respect to training on the KYC process, 50% of firms said they provided training and guidance to advisors on how to interpret risk profile questionnaires and how to deal with conflicts in responses, while advisors indicated that only 30% of firms provided guidance.

There was strong agreement between firms and advisors on the factors that were considered material in the KYC and risk profiling process.

Q9 If you have a risk questionnaire, was the questionnaire developed in-house or was it third-party engaged?

Answered: 42 Skipped: 47



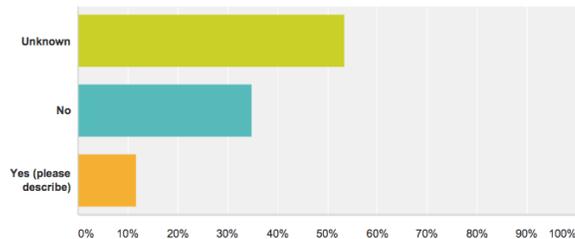
Answer Choices	Responses
Questionnaire(s) were created in-house	47.62% 20
Not providing any questionnaires, we leave this up to the advisor	35.71% 15
We engaged a third-party in the development of our questionnaire(s) (please provide who)	19.05% 8
Total Respondents: 42	

Figure 13: Where was the questionnaire developed?

- Only 19% of the firms retain outside expertise to build or design their questionnaires. The majority developed their questionnaire in-house (47.62%).

Q10 Was the reliability of your questionnaire(s) validated through some statistical process? (i.e. measure Cronbach's Alpha).

Answered: 43 Skipped: 0



Answer Choices	Responses
Unknown	53.49% 23
No	34.88% 15
Yes (please describe)	11.63% 5
Total	43

Figure 14: Was the questionnaire validated?

- Less than 10% of firms were aware ‘if their questionnaire had been validated by a formal process’ (i.e. statistical check of reliability);
- 36% said it was not validated; and
- 55% said they did not know.

Based on the individual commentary of some of the respondents who indicated their questionnaire was validated, validation ranged from ‘validated by compliance department’ to

analysis included both qualitative and quantitative analysis, including a survey and focus group experiment to test validity of survey results. All data gathered was statistically analyzed to determine most reliable questions to determine client's true risk tolerance as measured in the experiment.

Overall, as outlined in the advisor survey results, the firms’ responses to the vast majority of questions was closely aligned with the results from the advisor survey. We take this concurrence as a positive confirmation of the validity of the responses.

The result most open to concern would be that fewer than 20% of firms engaged outside expertise in developing a risk questionnaire, and less than 10% of firms were aware if their questionnaires had been validated.

6.3 Analysis of Questionnaires

For this portion of the project we gathered over 50 risk-profiling questionnaires from a variety of firms in various sectors of the industry: MFDA, IIROC or ICPMs (OSC).

We restricted the review to only those questionnaires that allowed for the evaluation of both the questions and the scoring models. We reviewed 36 different questionnaires based on the availability of the scoring model. Although not originally targeted, some firms used fund specific questionnaires (product fund companies), and some insurance firm questionnaires were used by advisors who were dually licenced for investments and insurance.

- Banks mutual fund channels (5)
- Bank brokerage firms (4)

- Non-Bank brokerage firms (3)
- Mutual fund dealer channels (6)
- Credit Unions (2)
- Portfolio Managers (5)
- Product fund companies (6)
- Insurance investment (5)

Because of the lack of consistency in the use of questionnaires, especially in the ‘independent channel’, we found a wide range of firms that adopted fund company questionnaires, had no questionnaires, used combinations of questionnaires from insurance or MFDA, or had questionnaires that were used for both insurance and MFDA investment products.

We were pleased with the ultimate distribution of questionnaires across all sectors of the industry. The numeric value beside each group above reflects the number of questionnaires analyzed.

Our in-depth analysis of the questionnaires involved classifying each of its questions in order to understand what factors were being asked for in the answer. Each question was placed into one of the four categories from the regulatory review (risk assessment, demographic and factual, knowledge and experience, and goals or use of funds), then one of the sub-factors (i.e. a question could be in the demographics category, then placed into age, income or net worth, etc. as the factor being measured); (see Figure 9 for the full list). Members of our research team reviewed each questionnaire by:

- counting the total questions asked;
- categorizing each question into one of the 15 secondary categories;
- noting if there were any unclear or poorly structured questions;
- reviewing the formula combination for determining the overall score; and
- deciding whether the questionnaire provided an all cash option for ultra risk-averse clients.

6.3.1 Questions Asked

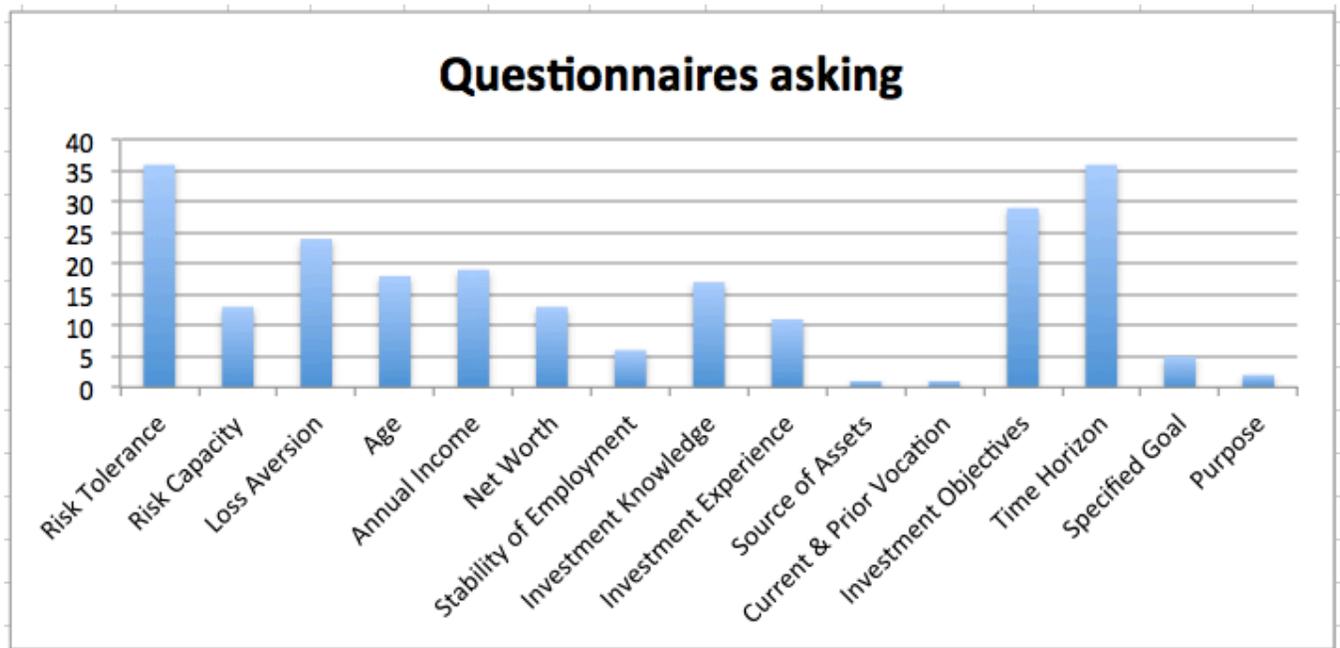


Figure 15: Questionnaires that included a question type

Figure 16 shows how many questionnaires ask at least one question about a secondary risk factor considered in our review. Additional categories were reviewed, but none of these categories were used in any questionnaire questions, so they were dropped from the analysis.

Risk tolerance and time horizon are asked in all questionnaires. Questions about investment objectives are very common, appearing in 29 of the questionnaires. Loss aversion, which is a specific question about behaviour in down markets, appeared in 24 of the 36 questionnaires.

Age, income and investment knowledge questions appeared in 15 to 20 questionnaires, with risk capacity, net worth and investment experience each appearing in 10 to 15 questionnaires. All other factors appear in fewer than six of the questionnaires (less than 20%).

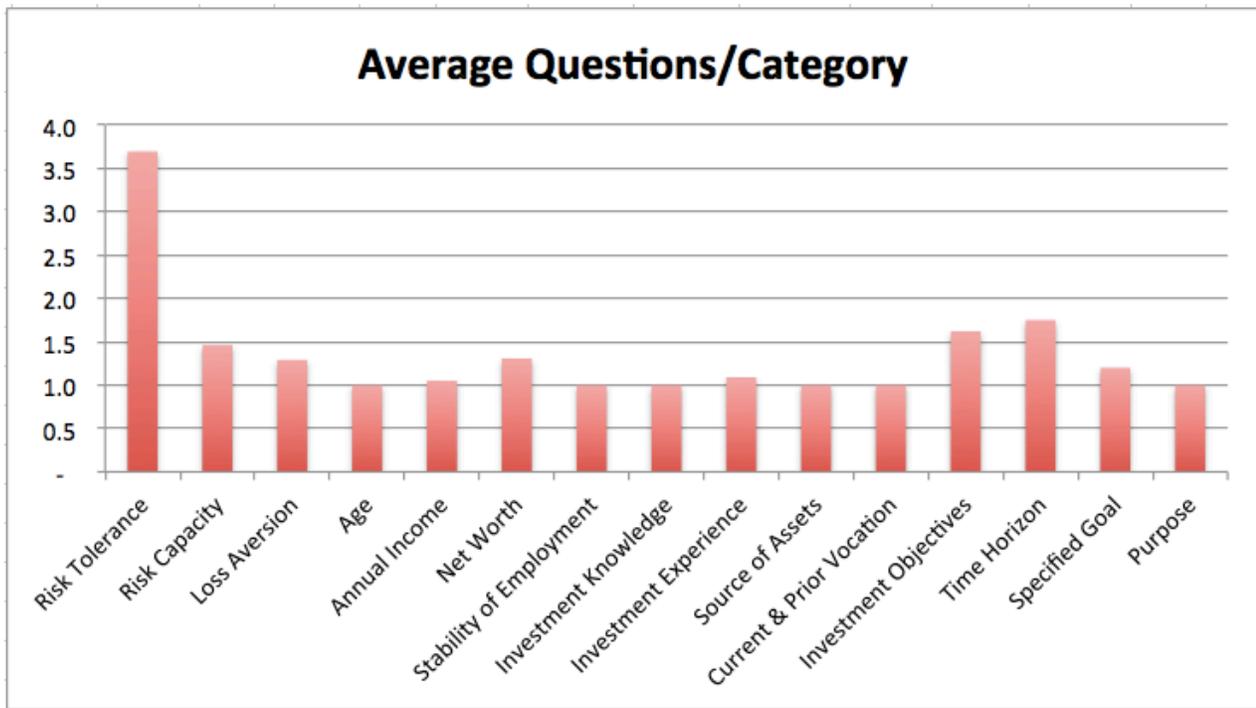


Figure 16: Average number of questions for each question type

Figure 17 shows how many questions of each type are asked in each questionnaire on average, assuming the category of question is asked at all in a questionnaire. Risk tolerance questions are asked in every questionnaire, averaging about 3.7 questions in each questionnaire. Time horizon, which also appeared in every questionnaire, averaged about 1.75 questions per questionnaire. Some questionnaires asked a simple “when do you need the money?” while others might have asked, “when do you need it?” or “how long do you need it for?”. It is important to note, that since many questions can only be logically asked once – age, income, employment stability, knowledge, experience, vocation and so on – the average appearance of a question type does not necessarily indicate greater importance to the questionnaire.

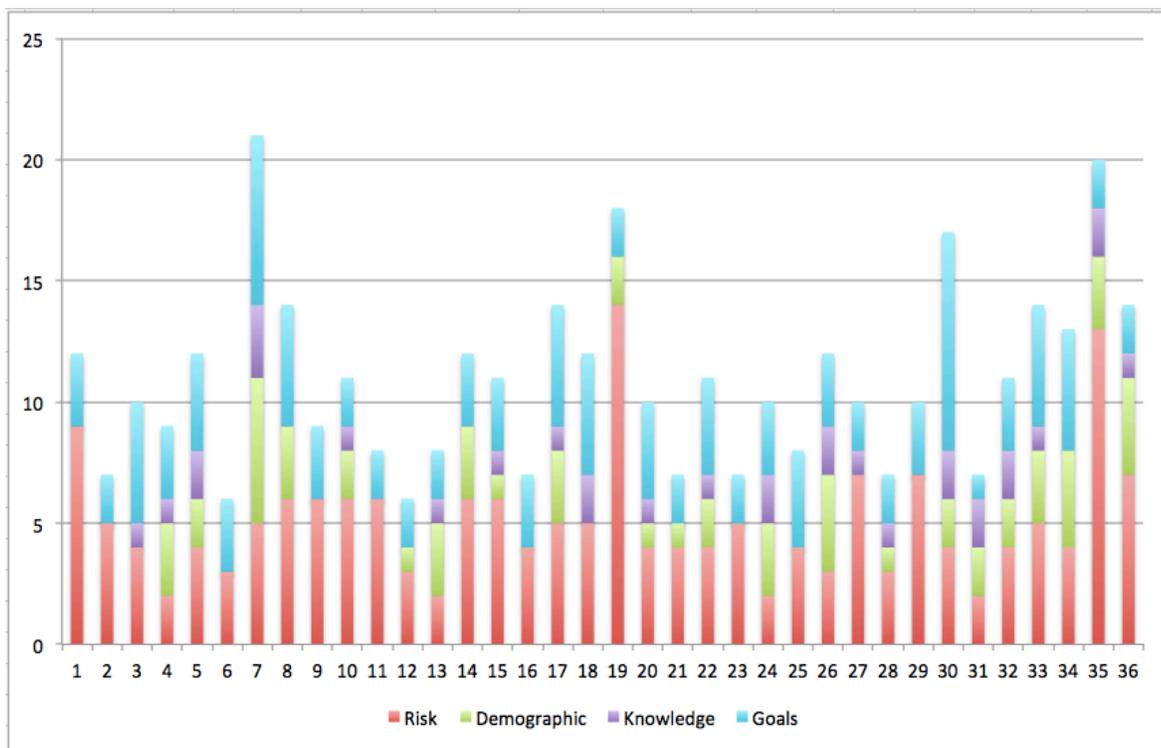


Figure 17: Questions by category in each questionnaire

Figure 18 shows the distribution of questions into the four primary categories for each of the 36 questionnaires. The average number of questions per questionnaire was about eleven. Many questionnaires cover only two of the four groups (mainly risk assessment and goal or use of funds).

A recurring dilemma in assessing risk profiles is that there is academic and regulatory evidence that if you ask too few questions, it allows one or two misunderstood questions to ‘misdirect’ the overall result. A challenge is that advisors (and often clients) want to deal with the fewest number of questions possible. There is also research of survey fatigue, where too many questions lead to answers being superficial and not well thought through, particularly for questions at the end of a survey.

6.3.2 Types of Poorly Structured Questions

About 10 of the 36 questionnaires were determined to contain questions that we considered to be inappropriate or poorly worded. The most common example of this was a typical question showing a few investment portfolios and asking the consumer to ‘pick the one you are most comfortable with’. These questionnaires would give the consumer a high and low range for the portfolios’ variability, but

most without an outline of the expected return, thereby expecting the client to select “risk” with no concept of return. Although poorly structured, we have not categorized these as poor questions. The ‘poor’ versions of this type of question would be ones where the average of the best and worse outcome were either the same or higher for the more conservative portfolio than the more aggressive portfolio. For example:

- Which portfolio would you select?
- a) A low of 5% and high of 15%
 - b) A low of 0% and a high of 20%
 - c) A low of -5% and a high of 25%

All these portfolios have a 10% average return. Any intelligent investor should pick the first option, unless the expectation is they just want more risk regardless of return. This type of illogical question appeared in over 25% of questionnaires. In some cases the average return of less risky investments was higher than those with wider ranges of outcomes.

Another poorly designed type of question, which appears in some questionnaires combines two attributes of the client in a single question. For example:

- Select one of the following:
- You have experience and are financially knowledgeable
 - You have no experience and have no investment knowledge

This type of question forces the consumer to use one response to reflect two attributes when it is possible that while they have some experience, they have no investment knowledge, or conversely that they have no investment experience but could be quite knowledgeable.

Another concern with the structure of some questions (although we did not rank any of these as poor questions in our analysis) is the balance that needs to exist between dialogue, educating the client to improve literacy and composure; and leading the client to specific responses by providing explanations that inadvertently guide them. This can be a difficult balance to maintain.

The MFDA (2014a) provides that the advisor should be careful not to influence the answers, however it can be challenging to draw the line between educating and guiding. Since it is a public document, let’s look at some of the questions in the MFDA’s questionnaire as an example. The commentary before question 2 states “[i]f you have very little knowledge of investments and financial markets, speculative and high risk investments and strategies are likely not suitable options for you” (p. 13). This explains the

result of the answer rather than the components to consider when assessing a client's investment knowledge. If the client reads this commentary and wants high risk investments, he/she might indicate that they have more investment knowledge than they do in reality. If they want low risk they may answer with the option that indicates they have very little knowledge of investments and financial markets, regardless of their actual investment knowledge. In other words, the answer might be dictated by the commentary concerning the client's appetite for risk, rather than what his/her knowledge is.

We are not using this as a criticism, as the design used by MFDA to have explanatory dialogue is excellent. We are just using this as a illustration of the challenges to consider.

6.3.3 Scoring Methods

As recognized in the "Evaluation of MiFID Questionnaires in France" (Palma and Picard, 2010) and by several of the regulators interviewed, a bigger challenge than the design of questions is the scoring model that is used to arrive at an overall result. The concerns with the scoring included the following:

- questionnaires might include identical questions for a client but generate extremely different results;
- even those questionnaires that include reasonable questions are problematic where the methodology of scoring them is arbitrary; and
- there are no academic or regulatory guidelines explaining how to weigh conflicting factors – goals versus tolerance versus capacity versus loss aversion and so on. Arbitrary scoring models do not make the different factors clear to the advisor so he or she can apply professional judgment.

According to MFDA (2014a) in their guidance:

Some poorly designed questionnaires aggregate information on different factors together in such a way that the value of each of the distinct pieces of information is lost or not adequately considered. With improper design, weighting or scoring this can result in clients being placed in a more aggressive risk profile than is indicated by the client's specific answers to the questions directly pertaining to their risk tolerance. Members and Approved Persons should be able to demonstrate how a recommendation or transaction is suitable for a particular client given each of the constituent parts of the suitability assessment (p. 4).

As outlined in the section of this paper covering the literature review and the review of the solution providers, there is a significant body of knowledge on how to score psychometric tests that measure

attitudinal factors. As well, we understand many of the objective factors that are important in a KYC. At this time, there are only the first glimmerings of academic research to help us understand the mechanisms by which objective and subjective factors are combined to arrive at a balance that we call a risk profile. For this reason, regulators have been correct to place the burden of this process on the professional judgment of the advisor:

[p]art of the skill of an adviser or discretionary manager is considering and evaluating different pieces of information to form a recommendation for the customer. It involves weighing up the advantages and disadvantages of alternative solutions by making trade-off decisions that best meet a customer's investment objectives and reflect their financial situation (FSA, 2011, p. 14).

Of the 36 questionnaires we reviewed in this study:

- 25 had a scoring model where every question was assigned a weight and the total was added up and then mapped to a risk profile/solution. In other words, any concept of sub-factors is lost in arbitrary weightings that combine all factors into one score and profile;
- five had a scoring model that separated time horizon and risk tolerance, and mapped to a solution;
- three had a scoring model that isolated three factors and arrived at a profile (tolerance, capacity and time, or tolerance, knowledge and objectives);
- three had scoring models that were extremely problematic in their outcome:
 - in one case 85% of the scoring method was determined based on the age. If a younger client completed the questionnaire, he/she could not receive any recommendation that was less than aggressive, even if the young client was unwilling to accept any risk;
 - another questionnaire used life stages and achieved the same result – only people that were already retired could end up in conservative investments; and
 - one questionnaire had a scoring algorithm with a decision tree and risk tolerance as the last branch of the tree. Depending how questions earlier in the questionnaire were answered, even if the client said they were not prepared to take any risk, they could already be committed to a particular branch of the decision tree and end up in an aggressive equity mix;
- two arrived at a risk profile but did not specify a solution or portfolio. In other words, they arrived at a risk profile but did not relate this to a portfolio. Separating the assessment of risk profile and product selection has merit;

- only one questionnaire provided a mechanism to allow advisors and consumers to adjust the risk profile and document why; and
- only 14 questionnaires had options that would allow a totally risk-averse client to be recognized and directed to a cash portfolio. In other words, in about 57% of cases, even if the client answered every question as conservatively as possible, they would end up in a “conservative portfolio” with bonds and some equities, as opposed to being directed into a cash account or GICs.

When we combined the various issues across all questionnaires (see Figure 21) we found that about 17% of the questionnaires did not suffer from one or more of the three problems of poorly drafted questions, poor scoring models or no ability to recognize totally risk-averse clients. Three of the six questionnaires that appear ‘fit for purpose’ isolate two risk factors (tolerance and time) while three others separately isolated three or more factors before arriving at a ‘risk profile’. Over half of questionnaires reviewed suffered from two or more of the three issues.

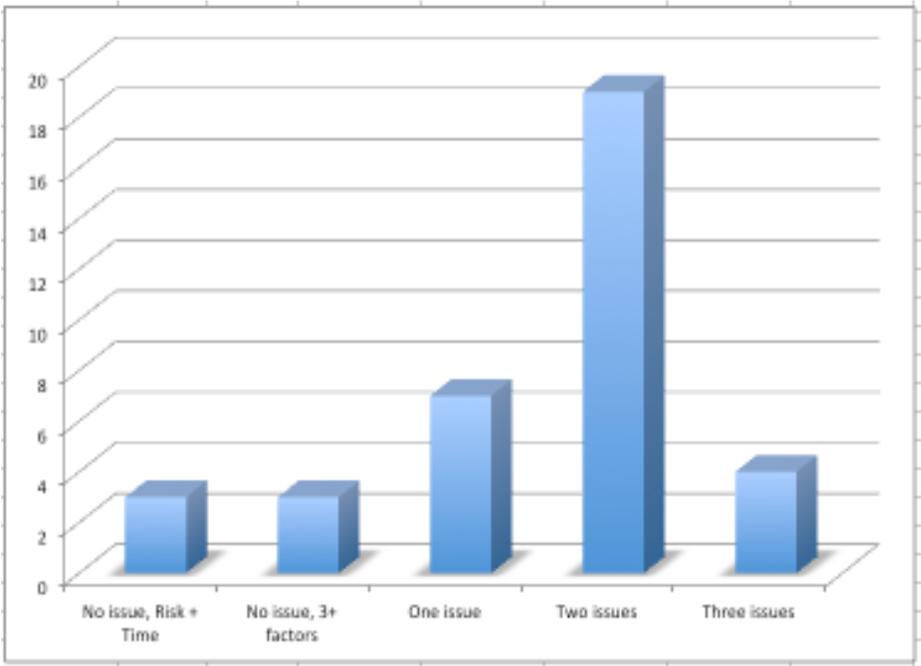


Figure 18: Overview of issues in questionnaires

6.4 Summary & Recommendations on Current Practices in Canada

A poorly drafted questionnaire can be worse than no questionnaire at all as it gives the advisor and the consumer the mistaken confidence that the results have meaning when they may not. Further, if the client and advisor explore other details and arrive at a different desired risk profile, no mechanisms exist in most questionnaires to allow for an adjustment.

The direction undertaken by the MFDA to try to provide better guidance, a sample questionnaire and enforcement has been excellent, but it appears as if there has been insufficient time for the MFDA Guidance to manifest into practice. There is no evidence that IIROC provides any assessment of questionnaires to determine if they are fit for purpose.

- 8.3% of questionnaires reviewed included questions and scoring models that allowed the advisor to consider three or more sub-factors and evaluate these separately in the scoring model.
- 27% of questionnaires had poorly drafted questions.
- 8.3% of questionnaires had scoring models that were extremely ‘poor’ or even ‘dangerous’.
- 70% of questionnaires had a scoring model that combined all questions into an arbitrary single score.

Advisors might be well justified by not using questionnaires when only 16.7% could be considered ‘fit for purpose’. The regulators and the industry must focus on actions that ensure questionnaires are fit for purpose before any value will be realized from the more consistent use of such tools. In Canada where it appears questionnaires are already widely used, ensuring this effort is not wasted with instruments that provide no value would be a good step.

The MFDA provides stronger direction than seen in most jurisdictions. That said, we encourage the MFDA to remain abreast of evolving research, avoid prescription of methods that are still being researched and to provide advisors the flexibility to apply their professional judgment so long as it is properly documented.

IIROC has a principles-based regulatory framework but this does not preclude them from providing additional guidance to firms to determine if their questionnaires are ‘fit for purpose’.

Although it has been recognized by many regulators that the use of questionnaires can provide consistency in the advisory process, until such time as these tools can provide valid direction in measuring sub-factors of a client's risk profile and arrive at a reasonable recommended risk profile, it would be inadvisable to recommend their mandatory use. That said, IIROC should consider a stronger stand to ensure that if questionnaires are used that the firm can demonstrate that they are 'fit for purpose'. Improved guidance in this area would likely be welcomed by the industry. It could also be considered a best practice that firms have a proper tool for those advisors that may be new to the industry or who are looking for assistance in the measurement of sub-factors of risk in particular.

7.0 Summary and Recommendations

First and foremost, we recognize this is a journey and everyone – regulators, advisors, firms, academics and solution providers – are all doing their best to improve an evolving process that may be only partially understood. Research in the field of behavioural finance has recently opened new doors to allow advisors to better understand their clients, now and in the future, but many aspects of this research are still in the formative stages.

7.1 A Definitional Problem

There is a confusing and universal lack of existence or consistency of the definitions of risk concepts and a lack of understanding of the factors involved in risk profiling. No group of stakeholders is immune from this problem, including academics, regulators and solution providers.

Regulators, in particular, use different terms as if each meaning is obvious or known, but do not make it clear to stakeholders what is intended. There is a concern by regulators that if they define something specifically it may turn into a ‘check the box’ attitude. Conversely, lack of definition makes it difficult for stakeholders to clearly understand the regulatory intent and requirements.

7.2 Is assessing a client’s risk profile a concern or problem?

The representatives from the Canadian Ombudsman for Banking Services and Investments indicated during the interview that investment suitability is the number one area of complaint year after year. Figure 7 from the OBSI 2014 annual report confirms that investment suitability stands out significantly as the primary area of complaint.

The MFDA explained in its 2014(b) Annual Report that their concerns led it to perform extensive research and publish a discussion paper on improving the KYC process through the use of investor questionnaires.

The MFDA (2014b) have recognized that measuring risk tolerance is complex and not an exact science: “[t]he process can be challenging for both clients and Approved Persons. A well-designed questionnaire can be a useful tool in supporting the dialogue between Approved Persons and clients” (p. 4).

According to IIROC (2014), risk tolerance was the number one category of regulatory violations that moved to prosecution. The UK regulator (FSA, 2011) stated in their guidance “half of these as unsuitable on the grounds that the investment selection failed to meet the risk a customer is willing and able to take” (p. 2). Every regulator interviewed as part of this project rated determining a client’s risk profile as being of “high importance”.

Aside from extremes that result in formal complaints, as outline in our literature review, research in the US showed that 57% of households reduced equity exposure between 2006 and 2008, crystalizing losses. The negative financial impact to these households is staggering.

There is overwhelming evidence that the issue of assessing a client’s risk profile and recommending suitable solutions is a primary area of concern in the industry.

7.3 Are advisors good at assessing risk profiles?

As recognized by all of the regulators at this time, professional judgment remains the best approach to determining risk profiles. That said, academic research demonstrates that advisors overstate risk tolerances of clients as a result of overconfidence bias. Based on the quality (or lack of consistency) of many questionnaires, an advisor’s judgment may be better than many risk profile questionnaires.

A significant challenge is that even if advisors do a professional job of assessing risk profiles in stable markets, research has shown factors like ‘risk composure’ and ‘risk perception’ can lead clients to alter their views.

7.4 Can clients “self-select” their risk profile?

Academic research has shown that clients are not bad, but not great, at predicting their own behaviour in respect to risk. Young and inexperienced consumers are particularly poor at predicting their risk-related behaviours. In the UK Guidance (FSA Guidance 01-2011), they stated it was a poor practice to ask the client to select their own risk as “[t]here was no certainty, in the absence of any other information, that the customer and the firm had the same interpretation of the level of risk a particular number represents” (p. 12). Similarly, the European regulator ESMA (2012) clearly states that you cannot have clients self-declare, since it is important to have robust and verifiable processes. The firm must validate what the client tells them. Finally, in Canada and many other jurisdictions, it is clearly stated that advisors cannot delegate responsibility of determining risk profiles to clients or anyone else (refer back to section 4.5.4 and 4.5.5).

7.5 Do we know what information needs to be asked/collected and how to measure it?

As outlined in the literature review, we know what ‘tolerance for risk’ is, how to measure it and how to confirm whether our questions are reliable. Psychometric risk profiling has been proven to work as a method for measuring risk tolerance as well as loss aversion. The impact of ‘risk perception’ in altering risk tolerance scores in different market conditions requires a better academic understanding.

‘Risk composure’ is another behavioural trait that can be evaluated but historically has not been isolated for consideration. It remains unclear if this is best evaluated using behavioural questions, or questions of ‘past behaviour’ in market downturns. For clients with no prior experience of market crisis, behaviour questions may be the only recourse.

We know how to measure a client’s goals – how much money they need, when and for how long. Sometimes this is described with the time horizon and investment objectives, which are how most regulators refer to it.

Risk capacity is not behavioural, but rather factual information concerning a client’s assets, liabilities, pensions and flexibility of their goals. Compared to some of the other terms, it is not as well understood in terms of how it can be scored or measured.

7.6 Do we know how best to combine the factors?

All regulators from all countries are consistent in stating in their regulation and guidance that there is a professional process that must be applied to evaluate all factors in order to arrive at a risk profile (notwithstanding inconsistency of terms). No regulator provides clear guidance on how to combine the multiple factors that form a risk profile.

The academic literature is only now investigating how we combine each of the risk factors into an overriding ‘risk profile’.

Some of the solution providers in this space focus clearly on measuring risk tolerance as a single attribute, while others believe their methodology arrives at a stable ‘investment risk profile’ measure. All regulators state that it is the advisor (or firms) responsibility to create a supportable and reliable risk profiling process. Using software tools and questionnaires cannot replace this responsibility. It cannot be transferred to the client by self-declaring, although the client’s responses to queries in the process are instrumental in the final determination of a risk profile.

7.7 How good are the questionnaires we use in Canada?

Many of the questionnaires in use by the industry are not fit for purpose – they have too few questions, poorly worded or confusing questions, arbitrary scoring models or outright poor scoring models. More specifically,

- at least 35% of questionnaires include poor questions or scoring models;
- at least 70% of questionnaires included scoring models that combined all factors into one arbitrary scoring without differentiating factors;
- over 57% of questionnaires have no option to recognize a totally risk-averse individual suitable for cash only; and
- only one questionnaire allows for the advisor and client to discuss factors and to assign and document an alternate risk profile to the score arrived at in the questionnaire.

Therefore, many advisors who do not use questionnaires may be justified in their lack of trust of these tools.

7.8 What do we suggest could be done to improve the situation?

We encourage regulators to move towards greater ***clarity of definitions***, while remaining flexible to emerging best practices as this area continues to evolve. Greater definition of meaning will help advisors and firms do a better job. Concepts like ‘financial risk tolerance’ can be considered to be either a broader behavioural attribute that encompasses investment, borrowing, cash management, et cetera, or a more focused attribute if a regulator is only pursuing a measure for suitability of investments.

We believe a clear and definitive ***‘fit for purpose’ guideline for questionnaires*** is important, and is demonstrated in some jurisdictions today. The MFDA in Canada has tried to adopt this stance. A poor questionnaire is worse than no questionnaire at all, as it creates a false sense of assurance. We appreciate regulators in Canada may feel a fit for purpose guideline is implicit in the principles of existing regulation, however it is not evident in the construction of questionnaires in use.

Where a regulator, like the MFDA, has attempted to be more prescriptive in the construction of a “safe harbour” questionnaire, they have implicitly created a weighting or prioritization of multiple factors that would not yet be supported by academic evidence but is a matter of their ‘professional judgment’. It will be important to continue to ***monitor advances in this field*** and all questionnaires should ***allow room for properly documented professional judgment***.

We do not believe that there is sufficient academic evidence to mandate that any specific questionnaire process would, in and of itself, generate better recommendations than advisors. That said we believe that properly vetted ‘fit for purpose’ ***questionnaires encourage transparency, consistency and accountability*** for all concerned. In the event of future disagreements, it will provide greater clarity and documentation of the client’s state of mind and an understanding of financial decisions made at that time.

Although more accurate determination of ‘risk profiles’ will be better for everyone, there is no academic evidence that simply putting investors into more conservative portfolios will in fact reduce poor/panicked client behaviour in a market crisis. The role of professional advisors, the media and the industry to *positively reinforce the ‘composure’ of investors in down markets* is critical. This can be supported through increased financial literacy and helping client’s understand the consequences of their actions relative to their goals.

We encourage the regulators to provide improved guidance in respect to *proportionality* of the KYC and risk profiling requirements for firms. A number of jurisdictions do this more effectively than in Canada. Although it is understood that every client’s dollar is important, in the same way you do not receive an EKG with every visit to a doctor, requiring the same level of KYC or review processes for every client creates unsustainable business models.

We encourage the academic community to continue to undertake *more research* into factors like risk composure, risk perception, risk capacity and most importantly, how the various factors should be combined into a final ‘risk profile’. Are there general rules that can be applied or should the weighting of factors be unique to each client? We believe there is room for new and important research in this area.

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APPENDIX A: List of Regulators Interviewed

1. CAN: MFDA – Mutual Fund Dealers Association of Canada
 - Karen McGuinness, SVP Compliance
 - Shaun Devlin, SVP Enforcement
2. CAN: IIROC – Investment Industry Regulatory Organization of Canada
 - Marsha Gerhart; Vice President, Member Regulation Policy, Investment Industry Regulatory Organization of Canada
3. CAN: OBSI – Ombudsman for Banking Services and Investments
 - Rob Paddick – Deputy Ombudsman at OBSI, for Investment Sector
4. CAN: IFIC – Investment Funds Institute of Canada
 - Joanne De Laurentiis - President and CEO
 - Ian Bragg – Senior Manager, Research and Statistics
 - Ralf Hensel
 - Jon Cockerline
 - Jenn Dymond
 - Alykhan Surani
5. UK: FCA – Financial Conduct Authority
 - Rory Percival APFS; Technical Specialist/ Retail Investments/Long Term Savings and Pensions Department/Supervision Investment, Wholesale & Specialists Division, Financial Conduct Authority
 - Richard Taylor; (IPD) – Investment Policy Development
6. AUS: ASIC – Australia Securities and Investment Commission
 - Mark Adams; Senior Executive Leader, Strategic Intelligence, ASIC
 - Leah Sciacca; Senior Analyst, Financial Advisers, ASIC
7. US: FINRA – Financial Industry Regulatory Authority
 - Paul Andrews; Vice President and Managing Director, FINRA
 - Gerri Walsh
 - Sara Grohl
 - Philip Shaikun
 - Tom Drogan
 - Joseph Price
 - Paul Mathews
8. EUR: ESMA – European Securities and Markets Authority
 - Salvatore Gnoni; Team Leader, Investment and Reporting Division, Investor Protection and Intermediaries, ESMA
 - Jacelyn
9. MYS: SC – Securities Commission Malaysia

- Mr. Goh Ching Yin, Executive Director, Strategic Direction plus 3 associates
- At Bursa Malaysia it was Mr. Chong Kim Seng, CEO

Other Regulations Reviewed

10. IND: SEBI – Securities and Exchange Board of India
11. SNG: MAS – Monetary Authority of Singapore
12. HKG: HKSC – Hong Kong Securities and Futures Commission

APPENDIX B: Interview Questions for Regulators

Interview of Regulators Regarding Risk Profile Regulations

March 26, 2015

Objective

As a part of a broader research project sponsored by the Investor Advisory Panel, an independent committee of the Ontario Securities Commission (OSC) in Canada, it is our hope to carry out a series of interviews with the regulators from a number of jurisdictions to help us more thoroughly understand the current state of regulation worldwide in respect to *risk tolerance assessment* (RTA) for investment purposes. The interviews are loosely structured and will not be aggregated in any form. The sole intent of the interview is to ensure we understand the current regulatory framework in several key jurisdictions to allow the OSC to better understand Best Practices and trends in this area.

Because suitability regulations are often linked to products and investment solutions, we want to clarify the scope of our research at the outset. If we categorize the regulatory model in three stages:

1. Assess the level of risk "suitable" for the client
2. Rate the level of risk of investment solutions the client might participate in
3. Provide a framework to map #2 (solutions) into #1 (suitable clients)

The scope of this research is strictly limited to #1, the mechanisms by which we access the clients risk profile, irrespective of products.

The Interview With Regulators

Date:

In Attendance:

A short interview (60 minutes max). The intent of the interview will be to cover the following:

1. Gather or confirm access to the current regulations and guidance papers in this area (Risk Tolerance Assessment) that define the rules that are in force today.
2. Are there results of court cases or regulatory hearings that provide additional clarity of a material nature?
3. Has any new regulation, articles or guidance been issued in the last 12, 24 or 36 months that is not yet in effect but is scheduled to be so?
4. Which of these are approved and just being implemented or still speculative and may not be implemented?
5. Do you consider an assessment of the client risk "profile" of high, medium or low importance?
6. Do current or proposed rules and regulations distinguish between the behavioural risk tolerance and other factors like time horizon and risk capacity? In particular do you have a different definition for risk tolerance and risk profile and what is it? Is this considered material or relevant?
7. Do you have some "approved approaches" such as an approved or mandated questionnaire process? Are you considering this?
8. Do you feel the assessment of a risk tolerance is ultimately the responsibility of the firm, the advisor, the client or whom?
9. Have any considerations been made in light of recent technological advances in consumer self-service (i.e. Robo-Advisors)?
10. Do the regulations impact all investment advisor or is there different requirements for different sectors (i.e. insurance versus banks versus discretionary investment managers)

11. Are there any metrics demonstrating the impact of current initiatives (i.e. reductions or increases in the number of complaints, litigation etc.)? Have these changed as a result of any changes implemented?
12. Are there any additional initiatives underway by the regulator in the area of risk tolerance assessment and suitability- research, committees, etc. that are evaluating any new approaches?
13. How has enforcement managed and how has it impacted the advisor community and firms?
14. Have there been any consumer-initiated activities in respect to risk tolerance assessment and suitability?
15. Have you (the regulator) reviewed any of the activities of other regulators in other countries? Would you recommend we look at anything in particular that is influential?
16. Are there any other sources of research, regulation or information that you believe are of consequence and we should review in our efforts?

APPENDIX C: Interview Questions for Solution Providers

Objective

As a part of a broader research project sponsored by the Investor Advisory Panel, an independent committee of the Ontario Securities Commission (OSC) in Canada, it is our hope to perform interviews of a number of the business solution providers who are recognized leaders in risk tolerance assessment to better understand perceived best practices.

Attendees

1. What was the instrument designed to measure (e.g., tolerance, perception, risk profile, etc.)?
2. What is your firm's definition of _____ (from above)?
3. How was the instrument designed: ad hoc, classical test theory, Rasch modeling, item response theory, etc.?
4. How was the validity of the instrument checked?
5. What is the instrument's reported reliability coefficient (Cronbach's alpha)?
 - a. Does the reliability estimate change based on different clusters of users? If yes, what are those figures?
6. How many factors comprise the instrument?
7. Firms use the tool; what does a typical firm look like?
 - a. Is the risk assessment typically part of the initial client data intake process or does it occur later in the planning process?

- b. Are advisors trained in score interpretation? If yes, how?
8. What would the end user's demographic profile look like in an ideal situation? That is, what would someone's socioeconomic profile be for the most valid assessment?
9. Do you believe that risk tolerance is a stable personality trait, or does risk tolerance vary?
- a. If risk tolerance varies, what drives change?
 - b. If risk tolerance varies, how large is the change?
 - c. If risk tolerance varies, is there a pattern of change (e.g., reversion to the mean, etc.)?
10. What is the greatest industry wide weakness associated with risk assessment?

APPENDIX D: Research Project Team

This section provides a summary background of each of the research project participants.

Shawn Brayman, MES, Chartered Financial Planner

President and CEO, PlanPlus Inc.



Shawn is the project lead and has been the recipient of the Financial Frontiers Award (2007) a research award issued by the Journal of Financial Planning for his work on “Beyond Monte Carlo”; Best Paper Award, Academy of Financial Services (2011) for “Defining & Measuring Risk Capacity” and has been published or presented papers on a variety of other topics in the financial planning field.

As founder and president of PlanPlus, a financial and investment planning software solution used in over 30 countries globally and widely used in Canada, he is imminently familiar with advisory practices in the Canadian marketplace including major banks, brokerage, MFDA dealers and more. He has spoken on best practices for investment planning and financial planning in over 15 countries around the world including Canada, US, Caribbean, UK, several European countries, India, Malaysia, Singapore, Hong Kong, Australia, China and Japan. This exposure to advisors, firms and regulators has led to a unique understanding of global changes in regulation and practice. Shawn is on the Board of Directors of the Financial Planning Association in the US, the largest association of financial planners globally with over 23,000 members from over 40 countries.

Dr. Michael Finke, PhD., CFP®

Texas Tech University



Dr. Finke received his PhD in finance from the University of Missouri and PhD in consumer science from the Ohio State University. He was assistant/associate professor at University of Missouri from 1999 through 2006 and associate professor at Texas Tech 2006 - present. Dr. Finke obtained his CFP® certification in 2006.

His research and other awards include: 2013 Investment Advisor IA25, 2012 Investment News Power 20, 2011 Academic Thought Leadership Award, Retirement Management Journal, 2010 Winner, iOMe National Retirement Challenge, Faculty Advisor 2010 Best Paper Award, Academy of Financial Services, 2008 Distinguished Research Award, College of Human Sciences, 2007 Teacher of the Year Award, Texas Tech Personal Financial Planning Association, 2006 Association for Financial Counseling and

Planning Education Outstanding Journal Article award, 2005 American Council on Consumer Interests
CFP Board Financial Planning Research Award.

Dr. Finke received the *Montgomery-Warschauer Award* by the FPA in both 2013 and 2014 for his outstanding research contributions to the field of Financial Planning.

Ellen Bessner, LLB, BComm

Babin Bessner Spry LLP



Ellen has her BComm from McGill and LLB from Osgoode Hall Law School. In over 20 years of practice at prominent Canadian firms Gowlings and Cassels Brock, and since January 2014 at boutique litigation firm Babin Bessner Spry LLP. Ellen has acted as counsel before Ontario courts of all levels, as well as represented clients at many arbitrations and regulatory proceedings, including IIROC, MFDA, OSC and FSCO. Ellen is a leader in commercial and securities litigation, employment litigation, professional negligence, regulatory matters, insurance defence, directors' and officers' liability and has regularly been retained to advise boards on issues of compliance.

Ellen has studied and lectured across Canada to advisors (registrants: IDA/IIROC, MFDA, FSCO and OSC) for over 15 years on the subject of risk tolerance and other compliance issues, developing processes and strategies for this purpose. She has advised senior management of securities dealers on compliance issues related to assessing client risk tolerance. She has been asked for expert legal opinions on this subject. Ellen has a deep understanding of the business of advising in this sector and brings both a legal and practical approach to advice and process recommendations.

Ellen is the author of the bestselling book "**Advisor at Risk, a Roadmap to Protecting Your Business**". Her book is a leading risk management tool for professionals in the financial services industry. She is an expert speaker in the area of risk and writes on the subject in the national, business and industry press. She is also quoted in the press as an industry expert on this subject. Ellen was recently asked to be one of the 5 judges for the 2015 Wealth Professional Awards.

Dr. John E. Grable, Ph.D., CFP®

Professor and Athletic Association Endowed Professor of Financial Planning

Department of Financial Planning, Housing and Consumer Economics

University of Georgia



Professor John Grable teaches and conducts research in the Certified Financial Planner™ Board of Standards Inc. undergraduate and graduate programs at the University of Georgia where he holds an Athletic Association Endowed Professorship. Prior to entering the academic profession he worked as a pension/benefits administrator and later as a Registered Investment Advisor in an asset management firm. Dr. Grable served as the founding editor for the *Journal of Personal Finance* and co-founding editor of the *Journal of Financial Therapy*.

His research interests include financial risk-tolerance assessment, psychophysiological economics, and behavioural financial planning. He has been the recipient of several research and publication awards and grants, and is active in promoting the link between research and financial planning practice where he has published over 100 refereed papers, co-authored two financial planning textbooks, and co-edited a financial planning and counseling scales book. Dr. Grable currently serves of the Board of the Financial Therapy Association, writes a quarterly column for a leading financial services journal, and serves as academic consultant to the *Journal of Financial Planning*.

Dr. Paul Griffin, Ph.D., CFP®

Humber Institute of Technology & Advanced Learning



Dr. Paul Griffin has been engaged in both the financial services and education sectors for over 25 years. In addition, he remains active on several Boards and Committees, most notably on the Insurance Institute of Canada's Ethics Advisory Board and also as Chair of the Education Committee and Board of Directors for the Canadian Institute of Financial Planners (CIFPs). He also serves as Chair of the Board of Regents of the Retirement Planning Institute. Although now the Associate Dean of The Business School at Humber College, in his previous role as a Professor, Paul taught finance, risk management (insurance), accounting, marketing and securities.

Dr. Griffin acted as academic supervisor for the research student, Rebecca Clement, as part of [Humber's Research Initiatives](#) and also provide general input to the project team.

APPENDIX E: Questionnaire Analysis

Questionnaire	RISK			DEMOGRAPHIC &				KNOWLEDGE &				GOALS OR USE OF FUNDS				ANALYSIS				
	Risk Tolerance	Risk Capacity	Loss Aversion	Age	Annual Income	Net Worth	Stability of Employment	Investment Knowledge	Investment Experience	Source of Assets	Current & Prior Vocation	Investment Objectives	Time Horizon	Specified Goal	Purpose	Other Uses of Funds	Total Questions	Poor Questions	Poor Scoring	Risk Free Alternative
#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	7		2										2		1		13	Yes		
2	4		1									1	1				7	Yes	Yes	No
3	3		1					1				1	3		1		10	Yes	Yes	
4	1		1	1	1	1		1				2	1				10		Yes	No
5	2		2	1	1			1	1			3	1				12	Yes	Yes	
6	1	1	1									2	1				6		Yes	
7	3	1	1	1	2	2	1	1		1	1	3	3	1			15	Yes	Yes	
8	4	1	1	1	1		1					3	2				14		Yes	No
9	5		1									1	2				9			
10	3	2	1	1		1		1				1	1				11			No
11	6											1	1				8		Yes	No
12	1		2		1							1	1				6		Yes	No
13	2			1	1	1		1					2				8		Yes	No
14	4	1	1	1	1		1					2	1				12		Yes	No
15	4		2		1				1				3				11	Yes	Yes	No
16	2	2										1	2				7	Yes	Yes	No
17	4		1	1	1	1		1				3	2				14		Yes	No
18	3	2						1	1			3	2				12		Yes	No
19	11	3		1	1							1	1				18		Yes	No
20	2	1	1		1			1				2	2				10	Yes	Yes	No
21	3		1	1								1	1				7		Yes	No
22	3	1			1	1			1			2	2				11		Yes	
23	4		1										2				7			
24	1		1	1	1	1		1	1			1	2				10		Yes	
25	4											1	1	2			8			
26	3			1	1	2		1	1			1	2				12	Yes	Yes	
27	4	2	1						1			1	1	1			10	Yes	Yes	No
28	3			1				1				1	1				7		Yes	No
29	4		3									1	2				10			No
30	4					1	1		2			3	3	1		2	17		Yes	No
31	2				1		1	1	1				1				7		Yes	No
32	3		1	1	1			1	1			1	2				12		Yes	
33	4		1	1	1	1		1				2	3				14		Yes	No
34	4			1		2	1					1	4				13		Yes	No
35	7	2	2		1	1		2	1			1	1	1		1	20			
36	5	1	1	1	1	2		1				1	1				15			

APPENDIX F: Advisor & Firm Surveys

An aspect of the project included a survey provided to firms in Canada as well as Advisors to determine current practices in the area of KYC and risk profiling.

Copies of the questionnaires and responses have been loaded into a shared Google Drive that can be accessed using the attached link. The files include:

- OSC-IAP Advisor Survey Questions
- OSC-IAP Advisor Survey Results
- OSC-IAP Firm Survey Questions
- OSC-IAP Firm Survey Results

<https://drive.google.com/a/planplus.com/file/d/0B5TotEPZO0IIQ0IPeFh6RDNqR3M/view?usp=sharing>

Raw results data is available to academics on request. All data is anonymous and cannot be associated to specific firms.

APPENDIX G: Regulations and Guidance Papers Considered

Regulator	Regulation/Guidance	New Rules
CAN: MFDA	Bulletin #611 – C (July 21, 2014) MSN- 0069 (April 14, 2008) MFDA Policy No.2 (Sept 12, 2013)	CRM2
CAN: IIROC	CSA 31-336 (Jan 9, 2014) CSA 31- 103 (Dec 18, 2009) Guide 12-0109 (Mar 26, 2012) Rule 1300.1 (N/A)	CRM2
UK: FCA	COBS GC11_01	
AUS: AISC	Reg 175 (Dec. 2012) Reg 244 (Dec. 2012) Guide 90 (Aug 2013) Report 279 (March 2012)	
US: FINRA	Regulatory Notice 11-25 (May 2011)	
EUR: ESMA	MiFID1 (Nov. 2007) Guideline 387 (July 2012)	MiFID2 (June 2016)
MYS: SC	CMSA (Dec. 28, 2012)	
SGP: MAS	“FAR” – 2002 “FAA”- 110	
HKG: HKSC	“SFC” Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission (2014)	
IND: SEBI	Investment Advisors Regulation (Jan 2013)	

APPENDIX H: Solution Providers Interviewed

- Ernst & Young: Gregory W. Smith, Partner - Financial Services Advisory
- FinaMetrica Pty Limited: Nicki Potts, Paul Resnik
- Mercer: David A. Hyman, CFA, Partner
- Morningstar Associates Inc.: Michael Keaveney, Director, Investment Management
- Oxford Risk: Terry Thomson, CEO
- Riskalyze: Jeff Beaumont CPA, Director of Support