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#### **ABSTRACT**

The purpose of this paper is to provide financial advisors with an overview of the different ways a client's risk profile can be measured and assessed. The paper begins by providing a definitional framework to help financial advisors better understand the similarities and differences between and among concepts such as risk tolerance, risk preference, risk need, and risk profiling. Next, information based on interviews of representatives from several risk profiling firms is presented. Based on these interviews and an assessment of each firm's risk profiling methodology, risk profiling tools are classified as being (a) comprehensive, (b) subjective, or (c) asset allocators. Guidance on the use of risk profiling tools is provided, as well as a discussion about the need for more policy guidance on the topic of risk assessment.

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egulators worldwide have taken steps to introduce policies, rules, and regulations that require financial planners and other advisors to comply with minimum acceptable standards of practice when providing investment (and in some cases, general financial) advice to noninstitutional clients. Consider the role of the U.S. Department of Labor (DOL). The DOL recently expanded the reach of the Employee Retirement Income Security Act of 1974 (ERISA). ERISA was originally used to create minimum standards for pension plans operating in the private sector. Under ERISA, employers are required to provide plan participants unbiased information about plan features, funding, participation rules, vesting, benefits, and accountability. ERISA also established fiduciary standards related to the administration of retirement plans. The DOL made a significant rule change to ERISA in 2016. The rule expanded the investment advice fiduciary definition under ERISA and modified prohibited transaction exemptions for investment activities in light of that expanded definition. According to the DOL, the final rule:1

• Significantly expands the circumstances in which broker-dealers, financial advisors, investment advisors, insurance agents, plan consultants, and other financial intermediaries are treated as fiduciaries to ERISA plans and individual retirement accounts (IRAs);

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- Provides new exemptions and modifies or revokes a number of existing exemptions, addressing those activities; and
- Retains the ERISA distinction between nonfiduciary investment education and fiduciary investment advice.

Under DOL and ERISA rules, a financial advisor who provides advice regarding retirement plans or retirement plan assets, including individual retirement arrangements, must follow fiduciary standards rather than suitability guidelines. This rule change has had significant ramifications for those who provide advice about retirement plans in the United States, particularly as it relates to assessing a client's risk attitude. Consider a situation in which a Financial Industry Regulatory Authority (FINRA)-licensed advisor provides advice to a client on an IRA rollover. Under FINRA Regulatory Notice 12-25, the advisor must measure the client's risk tolerance before making a recommendation. Under DOL guidelines, the financial advisor must then document how the client's risk attitude, along with the client's goals, financial situation, and need, is used to shape specific advice regarding the rollover. Implied in the regulations is that the advisor uses a valid risk-assessment tool. It is interesting to note, however, that while the DOL has mandated that retirement investment advisors working in the United States must follow fiduciary standards when providing advice, the DOL's rules have done little to help financial advisors better understand how they should measure someone's risk attitude or use a risk score when developing a client's financial risk profile.

The reason the DOL may have failed to provide guidance on the way financial advisors ought to measure and evaluate a client's risk profile and/or risk tolerance is that nearly all worldwide advisory regulators already place a professional responsibility on financial advisory firms and advisors to gauge a client's risk profile, which is broadly defined as a person's emotional and financial capacity to take on risk. However, even with this expectation explicitly mentioned

in regulatory rulings, few regulatory agencies have taken direct steps to prescribe how firms should measure and evaluate a client's risk profile. The situation in Canada is representative of the regulatory stance of nearly all governmental agencies worldwide. Specifically, Canadian regulators, "even those with the most prescriptive guidelines" use a principles-based approach that requires the advisor, dealer, representative, or financial advisory firm to determine how a client's risk profile should be assessed.<sup>2</sup>

This lack of regulatory prescription has encouraged innovation within the financial advisory community, and in response, numerous commercial firms have entered the marketplace to help financial advisory firms estimate the general risk attitude of clients. It should be noted that the use of solutions created by these commercial firms does not, in the eyes of regulators, remove the professional responsibility of the advisor or firm in the determination of a client's risk profile. The purpose of this paper is to review the offerings from a variety of risk profiling market participants in an attempt to determine a baseline evaluation of current practices.

### **Background Review**

The literature regarding the assessment and use of risk attitudes in consumer decision-making models is extensive. Excellent summaries for those seeking a broad review of risk profiling can be found in Carr; Guillemette, Finke, and Gilliam; Roszkowski, Davey, and Grable; and Ryack, Kraten, and Sheih.3 It is important to begin any discussion of risk profiling by acknowledging that an individual's risk profile is assumed to be a combination of objective and subjective attributes consisting of a set of relatively stable parameters financial advisors should consider when helping their clients evaluate risky financial choices.4 Objective factors are those 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 include concepts

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such as risk perception and risk preference, both of which are based on a client's idiosyncratic evaluations of the riskiness of a situation or choice.

Historically, financial advisors have emphasized objective attributes of a client's risk profile when making investment recommendations. The reason for this emphasis is not surprising: Objective indicators are relatively easy to measure and evaluate. Consider a client's risk capacity, or a client's financial wherewithal to handle a potential financial loss. Factors such as household income, net worth position, insurance levels (e.g., life, disability, and liability coverage), and previous investment experience are not particularly difficult to assess. Also consider a client's investment time horizon. Financial advisors have typically used time horizon as an indicator of risk capacity to dampen or accentuate the level of risk within a portfolio. Many advisors believe that those with a shorter time horizon should, holding other factors constant, take less risk than those with a longer time horizon because clients with a short time horizon have less time to recoup losses.

While financial advisors have always known that emotions and attitudes drive, to some degree, the behavior of clients, it was not until psychologists and financial planning researchers began to evaluate risk-taking behavior that tools became available to measure subjective factors associated with a client's risk profile. The field of psychometric scale development—a field of study focused on techniques of attitudinal and trait measurement—led to significant insights into the willingness of individuals to take financial risks. The importance of psychometric theory as a tool shaping the way risk attitudes are assessed cannot be overemphasized. In the context of assessing risk attitudes, psychometricians have been able to show that it is possible to measure someone's knowledge, abilities, attitudes, personality, and skills using techniques that are repeatable and accurate. Rather than build assessment tools based solely on professional judgment or primarily on objective measures of risk-taking, psychometricians have shown that the best tools are those that exhibit statistical relevance in terms of validity and reliability. Today, it is possible to find and use psychometrically valid and reliable measures of risk tolerance.

As the importance of subjective risk-taking factors emerged in the academic literature, few financial advisors or advisory firms were willing (or able) to undertake the rigorous requirements necessary to create and validate subjective risk tolerance and risk profiling questionnaires. This does not mean that firms avoided the topic and did nothing. Instead, firms added general subjective risk questions to their already-existing objective measurement tools. Most often, these questions were based on the subjective evaluations of the advisors themselves, without much thought to the validity or generalizability of the items. Questions such as, "If the stock market were to fall 20 percent in the next 6 months, what would you do?" and "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, in general, were (and continue to be) skeptical of these types of questions. There is general agreement that using a handful of questions cannot adequately measure the subjective elements associated with a client's risk profile.

With the lack of prescriptive solutions by regulators and the inadequacy of firms to create reliable solutions on their own, several entrepreneurial individuals and groups entered the risk profiling marketplace to help financial advisors more accurately measure the elements associated with developing a risk profile score. This phenomenon is continuing to the present, with several firms providing solutions or services to help financial advisors navigate the complex requirements associated with risk profiling.5 The primary outcome of this paper is to provide a review of how some of these firms conceptualize risk tolerance and risk profiling. A second outcome is to offer guidance to financial advisors and advisory firms that wish to incorporate risk profiling tools into their practices.

### Methods

An attempt was made to identify and contact several of the largest risk profiling firms operating in North America and Europe. Data were collected by interviewing firm personnel and evaluating each firm's marketing materials as of 2015. It is important to acknowledge that when asked, nearly every firm stated that it was, at the time of the interview, engaged in the business of financial risk profiling.

Several firms were identified for this study.<sup>6</sup> According to the Financial Planning 2015 Tech Survey, 44 percent of advisors do not use any tools for risk profiling, 30.5 percent use tools provided by their broker-dealers or custodians, 8.9 percent use Riskalyze, 6.6 percent use FinaMetrica, 2.2 percent use Pocket Risk, and 10.1 percent use another product.7 Some of the consulting firms interviewed primarily target large institutional firms and do not service the independent market. As a methodological precursor, it is important to note that none of the firms evaluated in this study shared the same definitions when describing their philosophy or products. The lack of definitional clarity was seen in the types of questions asked in the questionnaires designed by the firms. 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 a group of researchers was then asked to place each question into one of the following definitional categories:8

- 1. *Risk Tolerance:* The willingness of the client to take on risk. Risk tolerance can be defined through the client's attitude toward risk and is often described as a high/low risk tolerance.
- Risk Capacity: The financial ability of a client and his or her capability to endure any potential financial loss. Risk capacity answers the question of whether a client has the financial ability to afford to take on a risk.
- 3. Risk Preference: A client's "gut feeling" toward or against taking a specific risk. There may not al-

- ways be justification for the reaction felt toward a client's feelings regarding their preferences. Some equate risk preference with a person's fondness for one alternative over others.
- Risk Perception: A judgment that the client makes or feels toward the severity or future volatility of risk alternative(s). Risk perception indicates a client's assessment toward the riskiness of a considered decision.
- Risk Composure: Measured based on a client's past decisions. It can reasonably be assumed (with no major life changes) that a client's past behavior toward risk can aid in developing a gauge for future decisions.
- 6. *Risk Need:* The amount of risk that a person should accept in his or her portfolio in order to meet a specific financial goal.<sup>9</sup>

Additionally, qualitative interviews were conducted with representatives of each risk profiling firm. Each firm's representative was asked the following set of questions:

- What was the instrument designed to measure (e.g., tolerance, perceptions, risk profile, etc.)?
- What is your firm's definition of each of the factors listed above?
- How was the instrument designed (e.g., ad hoc, classical test theory, Rausch modeling, item response theory, etc.)?
- How was the validity of the instrument checked?
- What is the instrument's reported reliability coefficient?
- If known, does the reliability estimate change based on different clusters of users? If yes, what are those figures?
- How many factors comprise the instrument?
- What does a typical firm using your tool look like?
- For firms using your tool, is the risk assessment typically part of the initial client data intake process, or does it occur later in the planning process?

The discussion that follows summarizes the results of these interviews. The results are reported as objectively as possible. This means that readers

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should not infer or assume that one firm's approach was preferred by the research team or that one firm's measurement technique was better than another's methodology. A summary of results and findings is provided below.

### Results

### **Types of Questions**

The types of items comprising questionnaires, when viewed across solution providers, were diverse. Questions related to risk perceptions dominated the summarized list. This was followed, in order of frequency, by risk composure, risk tolerance, risk preference, risk capacity, and risk need. It is important to note, however, that the judges were able to reach agreement on question placement only approximately 50 percent of the time. Other questions were classified into more than one definitional category. From a psychometric questionnaire design perspective, this level of ambiguity indicates a somewhat problematic approach to question conceptualization and questionnaire implementation across solution providers.10 From a practical point of view, the variability in question interpretation may indicate a relatively low level of validity for some questions and risk profiling methodologies.

### **Interview Results**

Based on the review of questionnaires and discussions with firm representatives, risk profiling providers were categorized into one of three groups, as shown in Figure 1. The first included firms that offer comprehensive risk profiling systems. These firms provide financial advisors with tools that combine objective and subjective questions. Some also adapt their questionnaires to include questions specified by the financial advisor or advisory firm. Among the firms operating in this category, all stressed that their risk profile score is intended to be used 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.

The second category included firms that focus on subjective risk tolerance questionnaires. Firms operating in this segment use psychometrically designed questionnaires that are meant to measure what researchers generally call risk tolerance, which is most closely related to an individual's willingness to engage in a financial behavior in which the outcome is both unknown and potentially negative. Some firms operating in this category call their system a tool to measure risk appetite, risk preference, or risk attitude. The intended outcome associated with these subjective tools is to provide financial advisors with a baseline predictive insight into future client behavior. It is then up to the financial advisor to incorporate objective indicators into recommendations.

The third provider category was termed an asset allocation calculator. Firms operating in this segment of the market tend to focus 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. Rather than using scaling techniques, firms operating in this segment of the marketplace develop their products using traditional economic choice theories or advisor experiences. One firm, for example, created its questionnaire on an ad hoc basis. Over time the firm was able to track risk scores and identify the ultimate behavior of investors. Based on these data, the firm helps advisors match clients to portfolios that provide appropriate risk and return characteristics. Others operating in this space have adapted traditional (neoclassical) economic modeling approaches 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 financial advisors rather than risk profiling or risk

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attitude scores that are later incorporated into portfolio or broader financial decision-making models. Many online financial intermediaries have adopted this approach.

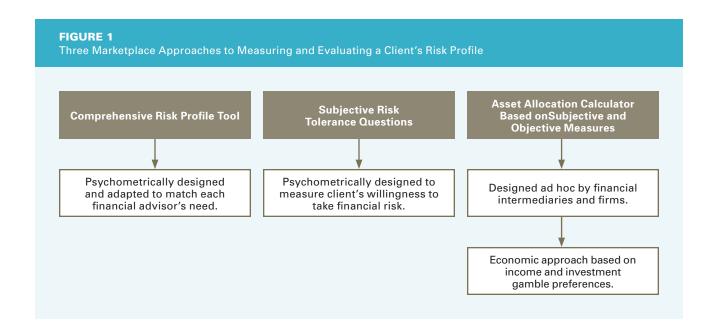
It is worth emphasizing again that comprehensive risk profiling tools, as defined here, combine risk tolerance, risk capacity, and risk perceptions into a score. Issues related to risk need and client goals require a financial advisor's professional judgment to adjust the profile score accordingly. For example, based on a client's goal, a financial advisor may opt to use a lower risk profile if the client does not need to take a risk. It is also possible that after discussions with a client, a potentially riskier solution may be recommended if the client will not meet the need and is prepared to assume more risk than advisable rather than rethink the goal. This may, of course, become problematic if the recommended allocation exceeds the client's maximum risk tolerance threshold.

Developers of subjective risk tolerance questionnaires generally do not profess to provide a financial advisor with a score that matches a predetermined asset allocation or solution. Risk tolerance scores are generally meant to provide a point of departure for more in-depth client-advisor discussions. It may be possible, however, for a financial advisor to use a score from a questionnaire as a primary input into the development of financial recommendations, although this is generally not the practice. In general, however, risk tolerance questionnaires emphasize the professional judgment of the financial advisor as a means of interpretation.

An asset allocation calculator is designed to provide financial advisors with a single-step solution for investment suitability. In some respects, asset allocation calculators minimize the role of risk tolerance and risk capacity and instead focus on matching a client's portfolio with an appropriate downside measure of risk protection. While there is some room for professional judgment, compared with the other methodologies, most asset allocation calculators minimize this input into score development.

# Discussion and Theoretical Considerations

Solution providers generally did not self-identify as offering only a risk tolerance measure or an asset allocation calculator. This highlights a significant



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regulatory issue within the financial and investment advisory community: namely, 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 a client's subjective risk attitude are both appropriate and in compliance with regulations. Other firms and regulators conceptualize a risk profile more narrowly to mean a tool for investment compliance. For those with this perspective, a risk profile should include both objective and subjective evaluations. If true, then only firms operating in the 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 and product solutions. Whereas risk profiling and risk attitude measures encourage financial advisor insights, discussions, and evaluations, the use of an asset allocation calculator implicitly reduces the need for qualitative advisor input.

The number of solution providers operating worldwide is relatively small—realistically, 10 or fewer, although there may be many firms doing work as consultants in this domain. Of the firms specifically in business to help financial advisors measure risk attitudes, and the ones interviewed for this project, only a few were able to document the psychometric validity of their questions and questionnaire design. In this study, one firm's approach fell outside the realm of traditional psychometric scale design procedures. This firm's model was designed using traditional and behavioral economic theory as its core theoretical foundation. The remaining firms appear to have used an ad hoc approach to question design and questionnaire administration. In other words, they did not appear to follow a systematic, evidence-based approach to question design and selection. Without evidence that a risk tolerance instrument effectively captures a client's willingness to accept the consequences of taking financial risk, it is difficult to conclude that the instrument provides

useful information that can be used to construct an appropriate investment portfolio.

### **Theoretical Considerations**

Findings from this study lead to a primary concern: Namely, the working assumptions underlying most models of risk assessment may need to be reevaluated. As generally conceptualized in the marketplace, a retail investor's risk profile is thought to be defined to some degree by three factors: (1) the client's perceptions of risk (i.e., general attitude toward risk-taking), (2) the client's capacity to incur losses should losses occur, and (3) the client's investing time horizon. There is debate regarding the relationship between risk capacity and investing time horizon. Some argue that time horizon can be used as a proxy indicator of risk capacity, with those having a shorter time horizon also having a reduced risk capacity. On the other hand, some argue that risk capacity refers more globally to a client's financial wherewithal to withstand a financial shock. Ways to measure risk capacity include financial ratios, assessing levels of in-place insurance, and absolute measures like net worth. It may be true, for example, that a very wealthy client can handle the potential loss associated with a short-term gamble. In reality, each solution provider weighs scoring inputs differently to arrive at a risk profile score, but in general, someone who is comfortable with risk, exhibits a stable income and significant wealth, and has a long investment time horizon most often receives a high risk profile score. In practice, the risk profile score is used as a measure of minimum level of suitability, which may or may not be discussed with the client. In cases where a financial professional is working under a fiduciary standard, the risk profile score needs to be linked directly back with any recommendations made to the

It does appear that the majority of solution providers has defined the concept of a risk profile strictly within the domain of investing and portfolio management. As noted previously, while a risk profile

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score might include a client's time horizon and other factors, it is not possible to then separate and understand the client's tolerance for risk. 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 alternative lines of credit. Is the client's investment time horizon relevant to this choice? In most cases, the answer is no. 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 the appropriateness of recommendations across a financial advisor's scope of practice, then the predominant model used by solution providers may be inappropriate. In the final analysis, instruments need to be consistent with evidence the scores can predict behavior.

To summarize, nearly all regulators and service providers agree that understanding risk tolerance, as a personal attribute, is a component of a client's risk profile. Risk tolerance applies beyond investments and helps an advisor know more about his or her client in the context of lending, insurance, and other financial decisions. Risk profiles are the composite created from the combination of several subjective and objective elements. Because a client can have multiple accounts or portfolios related to different goals it is possible for a client to have multiple risk

profiles. This is true because each goal could have a different risk capacity and time horizon associated with goal achievement.

It appears that some service providers have simplified the assessment process to such an extent that their product is appropriate only for creating an investment appropriateness profile. Confusion over terminology notwithstanding, if an advisor or firm combines factors like time horizon into a score, the score cannot be said to measure a client's overall risk attitude; the score must, by definition, be a risk profile. Incorporating time horizon, in particular, into a score is generally appropriate only in an investment context, and even then, time horizon should generally be linked with a client's risk need (when funds are required) or risk capacity (volatility as a function of time). It is important to note, however, that none of the providers interviewed for this study directly assessed a client's risk need in the context of developing a risk profile score.

### **Regulatory Intent**

Assuming that the regulatory intent of risk rules and guidelines is to ensure that a financial advisor understands a client's willingness to engage in a financially risky behavior (regardless of the type of behavior), then a traditional psychometric approach to attitudinal assessment offers the best means of valid assessment. Why? The use of psychometric scale development techniques (classical test theory, Rausch modeling, and item response theory) elevates the assessment of attitudinal and trait characteristics from approaches based primarily on professional judgment and previous practices to one founded on statistical procedures and norms. A tool that has been rigorously tested using a psychometric technique is more easily defended if and when a regulator or another party challenges a score outcome. For those seeking the highest levels of statistical validity and reliability, a risk profile score should be replaced with a scientifically designed risk tolerance score. The risk tolerance score, which is primarily attitudinal in nature,

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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 ensuring the appropriateness of investment recommendations, a financial risk tolerance score in isolation will be insufficient to ensure a proper investment fit. In this case, products offered by risk profiling solution providers likely do an adequate job. It is important to note, however, that there is insufficient data or firm disclosure to comment on the true 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.

### **Summary**

The following observations summarize the review of solution providers:

- The number of solution providers worldwide 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 somewhat problematic;
- Standard definitions of key terms are lacking, which has resulted in confusion among solution providers, financial advisors, and other financial intermediaries;
- 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.

Results from this study suggest that financial advisors (and their clients) would be well served if regulators would (1) work jointly to standardize definitions related to risk profiling and risk tolerance and (2) 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 reconceptualize their scoring methods if a risk profile or risk tolerance assessment were defined to provide a general evaluation of a person's willingness to engage in a financially risky behavior rather than as an investment behavior. Additionally, 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 created a void in the marketplace. Several solution providers have entered the market in an attempt to help financial advisors meet fiduciary and suitability requirements. While each solution provider is working toward 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. Until policymakers, working with practitioners and researchers, agree on basic definition frameworks it will be diffi-

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cult for firms providing risk tolerance and risk profiling assessment solutions, financial advisors, and other investment intermediaries to know whether they are truly in compliance with regulations. What is needed is a consistent definition of a risk profile and an evidence-based measurement of this concept.

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- (4) Liana Holanda Nepomuceno Nobre and John E. Grable, "The Role of Risk Profiles and Risk Tolerance in Shaping Client Investment Decisions," *Journal of Financial Service Professionals* 69, No. 3 (2015): 18–21.
- (5) Most large investment intermediaries have created and continue to use their own risk profiling systems. These systems are based on regulatory and compliance needs rather than on principles of predictive behavioral validity. Risk profiling firms tend to work with smaller intermediaries and investment advisors directly—those who do not have sophisticated compliance departments or large legal staff.
- (6) The following firms responded to requests to be interviewed: Ernst & Young; FinaMetrica; Mercer; Morningstar Associates, Inc.; Oxford Risk; and Riskalyze.
- (7) Joel Bruckenstein, "The eAdvisor Commeth, Is Your Firm Ready?" *Financial Planning Magazine*, December 22, 2015; accessed at: www.financial-planning.com/news/the-eadviser-cometh-is-your-firm-ready.

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(8) A standard Delphi technique was used to create a panel of financial advisory experts. Those on the panel included individuals teaching financial planning at colleges and universities, practicing financial advisors with many years of experience, both commission-based and fee-only advisors, and those with a background in scale development issues. Nearly all panel members held at least one professional designation or certification, such as the CFP, CLU, or ChFC. The definitions were obtained from Nobre and Grable (2015), endnote 4, and from Carr (2014), endnote 3.

- (9) It is important to acknowledge that this concept is inconsistent with the concept of risk tolerance. If risk is real, then taking more risk will both increase a chance of meeting a goal threshold and increase the chance of failing to meet the threshold by a wide margin. Ratcheting up risk to meet a goal rather than using a client's risk profile to create an optimal portfolio can lead to problematic outcomes.
- (10) Questions from firms that indicated using classical test theory as a basis for questionnaire design were less likely to have items classified in multiple definitional categories.



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