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### Profiling the Risk Attitudes of Clients by Financial Advisors: The Effects of Framing on Response Validity

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Working Papers Series

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# Profiling the Risk Attitudes of Clients by Financial Advisors: The Effects of Framing on Response Validity

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## Abstract

The Australian Financial Services Reform Act (2001) now requires all registered financial planners to assess a client's attitude towards investment risk as an integral part of establishing a 'reasonable' basis for investment advice to a client. However, the Act is silent on required procedures or acceptable minimum standards of risk assessment. Unfortunately, current methods for assessing a client's attitudes towards investment risk are mostly informal, untested and ignore such behavioral biases as framing and other response anomalies. Unless controlled for, these anomalies can invert risk attitude responses and invalidate portfolio choices recommended to the client on the basis of this risk attitude assessment. This paper examines the potential effects of question framing on risk attitude assessments by financial planners and explores the implications for matching risk attitudes to standardized portfolio categories. Minimum industry standards are recommended as a way to deal with such behavioral issues in risk attitude assessment.

# Risk Attitude Profiling: The Effects of Framing on Assessment Validity

## 1. Introduction

The Financial Services Reform Act {Commonwealth of Australia, 2001} now requires financial planners in Australia to assess a client's investment risk attitudes or 'risk profile' when identifying a client's financial objectives, situation and needs as the 'reasonable' basis for subsequent investment advice. But the Act is silent on the actual process of risk profiling, except for 'reasonable enquiries' based on client provided data. This lack of guidance creates potential legal, fiduciary and procedural problems for financial planners. If the Act merely refers to evidence of an attempt to establish a client's investment risk profile, then compliance is merely a matter of documentary evidence. But if the Act implies a 'reasonable' level of professional skill, competence and validity in the process, then the matter is potentially more serious; especially since most current assessment techniques used by financial planners are informal question and answer processes of doubtful validity, both in terms of psychometric principles and investment theory.

One critical class of behavioral problem in risk attitude assessment is that of 'framing'. Data collection always involves a method of 'framing' the questions, either verbal or written, to elicit responses from the client. Questions may be framed in terms of wins or losses, opportunities or threats, positive or negative returns. A requirement for psychometric validity is that responses to events with equivalent outcomes should be invariant to the framing context.

But there is strong evidence that question framing does influence responses. Alternative frames can produce complete reversals of risk attitude responses to an

identical problem of risky investment. The development of this evidence from its prospect theory origins can be traced in Kahneman (2003, 1998, 1999, 1979) and Tversky (1992, 1986, 1981). Financial planners need to be aware of framing effects and associated issues when assessing the attitudes of their clients to investment risk. Ignoring these effects can lead to completely inaccurate assessments, invalid interpretations and inappropriate advice on asset allocation and portfolio selection.

This paper examines the nature of framing effects on the validity of risk attitude responses and assessments within the context of advice and recommendations on asset allocation and portfolio selection. We argue that current practices and techniques are often inadequate to the legislative objectives. They often contravene or ignore principles of behavioral finance and personal psychology. In particular, they disregard the effect of ‘framing’ on assessment validity.

The purpose of this analysis is to show that ignoring such behavioral anomalies as question framing may invalidate responses and call into question any suggested portfolio selections that purport to conform to a ‘reasonable basis for advice’. The conclusions suggest that minimum industry standards of risk attitude assessment are urgently required to ensure some validity, relevance and standardization among current practices.

The paper proceeds as follows. Section two reviews the relevant legislative background to mandatory risk attitude assessment and lack of guidance on assessment procedures. Section three defines the concepts of ‘risk attitudes’ and ‘framing’ as used in risky investment decisions and identifies the types of framing in the literature. Sections four and five define and discuss two issues fundamental to assessment validity. The first issue concerns how to deal with framing bias in risk profile assessments. The second issue focuses on framing in the context of the role of risk

attitude assessments in asset allocation advice. Section six suggests the need for minimum industry standards to help address these issues.

## 2. Legislative Background to Risk Profiling

The Financial Services Reform Act (Commonwealth of Australia, 2001) is part of a legislative regime designed to reform the Australian financial services industry. The Act provides for (i) single licensing framework for financial service providers; (ii) minimum standards of conduct for financial service providers dealing with retail clients; and (iii) uniform disclosure obligations for all financial advice provided to retail clients.

Before giving financial advice or service, all licensees and their representatives must outline the services to be provided to the client in a Financial Services Guide. Advisors must have a suitable basis for giving that advice and must record advice details in a Statement of Advice to the client (Faludi, 2002).

Any financial advice given to clients must be appropriate to the client's objectives, financial situation and needs. The FP must make 'reasonable' enquiries of the client to establish these details. Financial advice is then only deemed appropriate and reasonable if it is made with due regard for 'the client's objectives, financial situation and needs' as a reasonable basis for the advice (Sec 945A).

These 'reasonable enquiries' include assessment of a client's reaction or attitude towards, and tolerance of, investment risk. The assessment obligation is repeated in both the Australian Financial Planning Association's Code of Conduct (AFPA, 2003) to its members and the Australian Securities and Insurance Commission's Policy Statement 175 (ASIC, 2003). The Statement outlines ASIC's policy for administering sections of the *Financial Services Reform Act* concerning conduct and disclosure.

The Policy Statement defines a client's relevant personal circumstances as including their:

- a. Tolerance to the risk of capital loss, especially where this is a significant possibility if the advice is followed; and
- b. Tolerance of the risk that the advice (if followed) will not produce the expected benefits <sup>1</sup>.

Under the FSR Act, a 'client's best interest' includes psychological comfort and well-being as well as economic optimization of portfolio returns. Financial planners must pay due attention to a client's beliefs, expectations and attitudes as an integral part of 'best interests'.

While a strict interpretation of PS 175 defines risk tolerance in terms of capital loss, the concept more generally includes both return volatility and absolute capital loss tolerance. The FPA adopted this latter interpretation, commenting that PS175 (ASIC, 2003) was not expansive enough about the nature of client related enquiries about risk attitudes, especially in light of the associated investor risks.

But neither the Act nor PS175 lay down minimum requirements for risk attitude assessments or define standard procedures for dealing with various behavioral anomalies that complicate the risk assessment process by creating response effects that significantly influence the validity, accuracy and consistency of risk attitude ratings. So what are these 'risk attitudes' that Financial Advisors must assess?

### *2.1 Behavioral Dimension of investment*

Markowitz portfolio theory may establish a deterministic model for optimal asset and portfolio allocation. But it does so under a highly unrealistic set of behavioral assumptions. For each individual client, investment decision making is

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<sup>1</sup> One item not included as yet is tolerance to levels of fees and charges by various strata of managers within the investment industry.

based as much on perceptions, attitudes, belief and experience as on economic criteria. (Antonides & Van Der Sar, 1990) stress that:

“Individual investment decision making can be seen as the outcome of the confrontation between expectations and preferences, given the restrictions imposed by the budget and the market. Our information and beliefs determine the possible outcomes foreseen and their subjective probabilities, and our wants or desires determine the values or utilities of the possible outcomes.... After all, the perception of economic phenomena is governed by psychological factors”

In a limited way, the AFSR recognises this conjunction of economic and psychological aspects in a client’s investment decision making. The requirement for risk profiling is essentially an exercise in attitudinal measurement that integrates behavioral dimensions into conventional financial models by allowing for the subjectivity of perception. Valid, reliable measurement requires conformity to established psychometric principles of attitudinal measurement and control for behavioral anomalies that may bias assessment.

Callan and Johnson (2002) have begun the call for minimum standards of process conformity with basic psychometric principles in order to ensure the required qualities of assessment outcomes such as internal validity and reliability. But the need to control for anomalies such as framing has not been addressed directly.

Data is lacking about the how Australian financial planners current assess a client’s risk attitudes or tolerance. Most evidence is either anecdotal, from the popular press, industry sources or reflective experience (see, for instance, (Elsayed & Martin, 1998); (Davey, 2000) <sup>2</sup>. This evidence indicates that few, if any, approaches are based

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<sup>2</sup> In 2003, 1998 and 1995 a survey on the quality of advice by financial planners was jointly conducted by the Australian Securities and Investments Commission and the Australian Consumers Association, but no reference is made to risk profiling or risk attitude assessment techniques {(ASIC, February 2003)ASIC, 2003}. A forthcoming survey of the financial services industry commissioned by the AFPA through the University of RMIT may include some information on current practice (see AFPA homepage at <http://www.fpa.asn.au>).

on psychometrically defensible processes either in terms of behavioral data collection principles or attitudinal measurement requirements (Callan and Johnson, 2002).

An already existing trend is for large financial service franchising companies to develop standardized risk attitude assessment processes for distribution among their franchise holders. There are also an expanding number of software based risk attitude or risk preference assessment systems. While the advent of these programs reflects the inadequate state of current practices, there is, as yet, no comparative survey of their psychometric and construction validity<sup>3</sup>. One exception is a software profiler by the firm ProQuest. This firm, now Finametrica, submitted their software profiler to psychometric validity tests with the University of New South Wales in 1999 with positive results (ProQuest, 1999).

But there is considerable evidence of dissatisfaction from industry oversight bodies about both the processes of risk attitude assessment and the use of those assessments. The criticisms focus on (i) the lack of standardization of risk profiling approaches/techniques and (ii) the validity of approaches that use assessed risk attitudes to match and selected classes of investment portfolios categorized on their risk-return profiles. In 2003, a voluntary committee of the Financial Planning Association of Australia reached a consensus on a risk profiling definition but also ‘... rejected processes of choosing investments based on whether investors were risk sensitive or risk tolerant’ (Spits, 2003).

### 3. Risk Attitudes

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<sup>3</sup> Some vendors have submitted their product to psychometric testing. For instances, Pro-quest (now FinaMetrica) submitted their software to the University of New South Wales Psychology unit for testing (ProQuest, 1999).

The concept of 'risk attitude' has proved easier to measure than define. Saucier and Gerard (2000) note the ambiguity and lack of consensus definition in the psychological literature since it first appeared. But they do identify recurrent themes such as diverse dimensions (opinions, beliefs and values) of evaluations (like, dislike, preference) about "objects" that imply alternative ideas of what is desirable (Saucier, 2000) . As applied in investment decisions, 'attitude' refers to the tendency to evaluate a person or a thing or idea either favorably or unfavorably. Fishbein and Ajzen (1975) describe attitudes as:

*"Learned, relatively enduring predispositions to respond in consistently favorable or unfavorable ways to certain people, groups, ideas or situations."*

This definition emphasizes the developing nature of attitudes towards risky investments as a system of beliefs learnt over long periods of time, their consequent enduring nature and the involvement of feeling, beliefs and actions. Attitudes predispose people to behave (respond) in certain consistent ways, especially in evaluative terms. They may also play a positive facilitating role in memory-based decision making by providing a quick alternative means of evaluating choice options (Sanbonmatsu, and Fazio, 1990).

Generic risk tolerances are only one element in the compromise between preferences and expectations. How attitudes then condition decision behavior is an entirely separate question. A client may bring different, often opposite reverse risk tolerances to bear on their actual investment decisions depending on the decision nature and context. Generic attitudes towards investment risk are not necessarily effective predictors of actual decision-making behavior in relation to different classes of investment decisions.

### *3.1 Investment Risk*

The concept of ‘investment risk’ refers to the possibility of capital loss and/or the volatility of returns on an investment if the financial advice is followed. The classical expression of investment decision-making under uncertainty defines a person’s risk attitude as their preference between a gamble and a certain pay-off.

“...risk attitude indicates one’s preference between a gamble and the expected value of that gamble. Risk aversion means that one prefers the expected value, while risk seeking implies that one prefers the gamble. The definition of risk aversion, however, does not reveal *why* one prefers the certain amount.” ((Chapman, 1997)

Studies into investment risk tolerance or risk attitudes are classical based on the preferences exhibited between a gamble and the (certain) expected value of that gamble under various contexts and levels of investment risk. Although risk attitude scales are essentially continuous (see diagram 1), financial planners generally assess risk preferences only in terms of broad categories. The spectrum is typically divided into three broad categories of ‘risk averse’ ‘risk neutral’ and ‘risk seeking’ preference rankings.

The implicit assumption here is that financial advice on portfolio selection and asset allocation must be consistent with the client’s expressed attitude towards or tolerance of the probability and size of capital loss and degree of volatility of investment return. Within these parameters, valid rankings require that category assignment is consistent with client attitudes. For instance, a valid assessment of a client as ‘risk averse’ should be accurate, repeatable and meaningful. That is, a risk averse profile should be (i) consistent with the client’s attitudes, (ii) invariants under repetition for questions of identical outcomes, and (iii) have appropriate separation value in an investment sense.

However, there are several behavioral factors that appear to violate these rules and invalidate categorization of clients risk attitude profiles. The issue of question Framing is such a problem. We now examine the dynamics of framing effects on response validity.

### *3.2 Framing Defined*

Kahneman and Tversky (Daniel Kahneman & Tversky, 1979; Tversky & Kahneman, 1986) first defined framing in its broad sense as the frame of reference used by a decision maker when making decisions. A 'frame' defines the decision maker's conceptions as to the nature of 'the acts, outcomes and contingencies associated with a particular choice' (p. 453). (A. Kuhberger, 1998) defines 'framing' as an subjective, internal process determined by the situation's contextual and individual factors.

(Evensky, 1997) emphasizes the uniqueness of individual conceptual schema. Each decision maker constructs their own subjective conceptions about the decision task derived from their own reality which then forms their own unique frame of reference.

Subsequently, 'framing' was used to refer to the manner in which a problem or issue is presented to the decision maker when determining their attitude towards risk. The 'semantic manipulation of a problem so as to re-describe exactly the same situation.' (A. Kuhberger, Schulte-Mecklenbeck, & Perner, 2002)

The classic approach to risk attitude assessment presents an investment decision with two options - a dollar outcome that is certain and an equivalent gamble with known probabilities. Risk attitude is reflected in the respondent's choice of option Preference for the certain outcome reflects risk aversion. Preference for the gamble reflects risk seeking. Indifference between options represents risk neutrality. Intrinsic

factors such as investment size, levels of initial wealth, pay-off probabilities may be varied to reveal risk attitude patterns and sensitivity to conditioning and contextual factors.

Kahneman and Tversky (1979) first formalized the notion that how attitudes are used in decision making is also influenced by how a particular investment decision is formulated or 'framed' in the strict sense (see also Tversky, 1986, 1981, 1992). A large body of empirical evidence now supports the proposition that the 'framing' of a choice problem can reverse risk attitudes, depending on whether the problem is framed in a positive or negative way. Kuhberger, Schulte-Mecklenbeck and Perner (2002) provide a synthesis of this empirical evidence. When a decision involving financial uncertainty is framed in a positive light (e.g. In terms of gains) clients are less willing to take risks than if exactly the same pay-off situation is presented in terms of potential losses. Positive framing (gains, winning, opportunity) induces risk aversion, while negative framing (potential losses, losing or threat) of the same problem with equivalent pay-offs produces risk seeking attitudes.

This attitude reversal means that the form of question presentation may condition the response. Two financial advisors may elicit completely contrary risk attitudes from a client by presenting a problem in two opposing 'frames' even though the choices have exactly equivalent pay-offs.

### *3.3 Framing effect on responses and rationality*

A risky investment choice problem may have identical economic pay-offs, but may elicit contradictory responses from a client depending on how the problem is framed. In describing investors' choice, (D. Kahneman & Riepe, 1998) assert that the objects of attitudes and evaluations of them are not objective facts but mental representations. Although the choice problem may appear objectively defined this is

a false interpretation. Any choice issue is inherently contextual and can only be viewed through the lens of individual subject interpretation. Individual responses to uncertainty pay-off situations are formed from subjective evaluations that are strongly influenced by attitudes. So contradictory decision choices induced by framing in identical pay-off situations, while economically confounding, may be quite consistent to the individual making them. In mental accounting terms, the pay-offs for that decision may be asymmetrical depending on whether they are framed as losses or gains. Losses may weigh more heavily than the utility or satisfaction from equivalent gains.

### *3.4 Evidence contrary to framing effects*

Not all studies support the framing effect conclusions. (Mandel D.R, 2001) reexamined the assumptions underlying the classic Asian disease problem used by Tversky and Kahneman (1981) to illustrate gain-loss formulation effects. {Mandel, 2001) argues that their reported framing effects may have been due ambiguity and descriptor factors in the problem presentation. First for the decision maker, the outcome ambiguity attached to a sure outcome is much less than the ambiguity attached to a risky outcome prospect. Second, there are two distinct types of manipulations that get entangled in the alternative problem description. The first how the outcomes are described – positive versus negative presentations. The second manipulation relates to the descriptors used to convey the relevant expected outcomes (lives saved/not saved versus lives lost/not lost). {Mandel, 2001) found that eliminating these confounding effects from the presentation of a formally equivalent

problem resulted in no significant predictive effect of either descriptor or outcomes frames on choice <sup>4</sup>.

### *3.5 Benchmarking framing effects*

Framing effects in the classic Kahneman and Tversky context are inherently comparative. Individual responses to an investment choice problem couched in positive terms are compared to the responses framed in negative terms. Comparative assessments are then made in terms of sign changes (direction – risk averse versus risk tolerant) and magnitude changes (how much more or less risk tolerant) of attitude implied in these responses.

While this “sign reversal effect” is well evidenced in empirical studies, there is less agreement about the size of the reversal effect. Druckman (2001) reports varying success among replication studies, for instance, Bless et al, 1998; Fagley and Miller, 1990; Miller and Fagley, 1991; Kuhberger, 1995; 1998. For a review of evidence see Levin et al, 199.

Druckman (2001) distinguishes two approaches towards the comparative analysis of framing effects on risk attitude assessment. The first approach is a unidirectional effect or choice shift. The second is bi-directional effect or choice reversal. The first approach compares the percentage of participants choosing the risk averse alternative (risk seeking) in the gains format with those choosing the risk averse alternative in the losses format. A significant difference indicates a ‘framing’ effect. The standard of comparison in this approach ‘reveals just how different preferences can be when one frame is used instead of another (objectively identical) frame.’ (Druckman, 2001, p. 94).

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<sup>4</sup> A marginally significant framing effect was obtained when the signs for the two framing manipulations were either either positive or negative.

The second or bi-directional approach due to Wang (1966) uses a risk neutral 50 percent of participants standard of comparison to establish if risk-averse choices dominate for the gains format (significantly greater than 50 percent) and risk seeking choices dominate for the losses format. A framing effect occurs if significantly greater than 50 percent of participants choose the risk-averse option under the ‘gains’ format and significantly fewer than 50 percent choose the risk-averse option under the ‘loss’ format. This approach has the advantage of showing whether alternative frames cause respondents to opt for opposite alternatives. ‘Identifying such a majority reversal in preference can be important for those interested in if different frames can generate majority support for one alternative instead of another’. (p. 94).

Druckman (2001) points out that each approach reveals particular insights into framing effects. The unidirectional approach reveals the relative impact of alternative frames on preferences while the bi-directional approach reveals the occurrence of a majority preference reversal. However, the two approaches may give contrary results about the existence and strength of attitude shifts under framing effects.

### *3.6 Frame-free Response Bench-mark*

More importantly, neither approach gives any insight into the effect of framing on latent attitudes or frame-free preferences. In real-world FP interviews, the respondent may experience only one frame in the self-report process that may or may not, shift their latent risk attitudes or preferences. Evaluating the effect of framing on frame-free attitudes requires the measurement of prior risk preferences. But even then, Wang (1996) points out that a general risk attitude propensity measure may be inappropriate since attitudes vary considerable across specific problem domains.

The notion of frame-free response benchmarks brought a distinction between imposed and subjective frames. (Elliott & Archibald, 1989) pointed out that studies

on framing effects since Kahneman and Tversky's (1979) original prospect theory article extended analysis within an imposed frames context. They studied the subjective frames used by respondents in choice situations to see whether subjective framing yields the same systematically different choices observed when using imposed frames. When comparing the predictive power of frames with that of knowledge of risk preferences, they found a clear relationship between actual decision choices and framing. But they found no relationship between choice behavior and attitudes towards risk.

This distinction between risk attitudes, risk preferences and actual choice behavior has yielded interesting results. Several studies indicate that there is no clear relationship between an individual's actual choice behavior and either risk preferences or risk attitudes as assessed by financial planners. So assessment of risk attitude or risk preferences is, at best, an uncertain guide to an individual's actual behavior when making investment decisions under uncertainty.

### *3.7 Attitudes and Decisions*

A note of caution is needed on the often substantive differences between a client's attitudes, beliefs and opinions on the one hand and actual investment behavior or choices on the other. Although risk attitudes may indicate preferences and tolerances of investment risk, they can be poor predictors of a client's actual decision behavior. (Levin, Schneider, & Gaeth, 1998) affirm that the literature has been mixed as to how alternative framing of information in positive or negative terms actually affects judgments and decisions.

Studies of factors determining risk preferences have also yielded interesting framing effect results. The object of framing effects may relate to the size of probabilities, the type and size of pay-offs or other framing conditions. (Anton

Kuhberger, Schulte-Mecklenbeck, & Perner, 1999) distinguished size of probabilities and pay-offs attached to the risky outcome option as potential factors affecting risk attitudes. In line with existing formal theories such as prospect theory, cumulative prospect theory, venture theory, and Markowitz's utility theory, results confirmed an association between risk preferences and the size of payoffs, the probability levels, and the type of good at stake (money/property versus human lives).

In general, risk aversion for gains and risk seeking for losses increases with increased dollar payoffs and with higher probability levels for the gambling option. But contrary to the predictions of these theories, it was not the size of probabilities or payoffs, but the framing condition itself, that explains most of variance in attitudes. {Kuhberger et al, 1999) concluded that the essence of framing could not be described by any linear combination of predictors.

The size of effects of different framing perspectives on attitude reversal has also been studied. (Highhouse & Yuce, 1996) conclude that different framing perspectives produce different degrees of attitude reversal. They distinguished a 'threat and opportunity' perspective from a 'loss and gain' perspective. The risky alternative was perceived as an opportunity in the 'loss' domain, but as a threat in the 'gain' domain. But the two perspectives were distinguishable in their framing effects. The framing of a problem in a 'threat' versus 'opportunities' manner intensified the attitude reversal relative to a 'loss/gain' perspective. The former frame induced greater risk taking for opportunity-framed problems (loss) and increased risk averse for threat-framed problems (gain). We conclude that threat and opportunity perceptions are theoretically and empirically distinguishable from loss and gain perspectives.

#### 4. Effect of Framing on risk attitude assessment validity

The forgoing review indicates the pervasiveness and robustness of the attitude reversal effect of framing in attitude assessment procedures. Two FPs may elicit contrary risk attitudes from a client by presenting a problem in two opposing ‘frames’, even though the choices have exactly equivalent pay-offs.

Two issues arise on the question of how to deal with, or allow for, the effect of framing on attitude profiling. The first issue relates to the quality of assessment. The second to how these assessments are then used as a basis for investment advice and decision-making by the financial planner. Current practices by financial planners raise serious criticisms on both counts in relation to the legal requirement to ‘act in the client’s best interests’.

(Callan & Johnson, 2002) see risk tolerance as a complex attitude that requires the use of a sophisticated and complete assessment process. The psychometric aspect of attitude assessment concerns measurement qualities that include internal validity, comparability, replication and accuracy. They argue for systematically developed measures of risk tolerance with established test norms as a basis for looking at acceptable investments appropriate to the client’s level of risk tolerance. Psychometrically validated measurement processes then allow the financial planner to compare the client’s level of risk tolerance with others completing the same profiling procedure.

But there is a second issue, quite apart from the measurement issue, that concerns the impact of other behavioral factors, such as framing, on the role of attitudes in actual decision behavior. How we deal with ‘framing effects’ in the risk assessment process depends our view of how framing impacts on investment decision choices. One alternative is to treat the framing effect as an intrinsic characteristic of

client attitudes in the sense that a client adopts a particular ‘frame’ of reference when making identifiable types of financial decisions. For instance, a client may consistently adopt a “loss” frame of reference or heuristic when dealing with long term life-time savings decisions such as superannuation. But the same client may adopt a “profit” or “winning” type of decision frame as a consistent heuristic with less significant, short-term investment decisions. This ‘consistent heuristic’ approach focuses on identification of the heuristic framing perspective each client adopts for specific investment decisions. The financial planner would then use that framing perspective in the self-report questioning process to construct a risk attitude profile appropriate for particular types of investment decisions.

A second alternative is to concentrate on the extent of framing effect deviations away from a ‘frame-free’ benchmark. Framing bias is established by benchmarking self-report responses against a ‘frame-neutral’ benchmark of questions. One such approach is the ‘combination format’ of Levin, Johnson and Davis (1987) and (Druckman, 2001) <sup>5</sup>. They suggest the concept of a frame-neutral benchmark to measure and eliminate framing effects - benchmark that contains both positively and negatively framing for each question.

If the concept of ‘frame free’ attitudes is valid, then this standard of comparison provides a way to evaluate the impact of a frame on unadulterated preferences. That is, preferences unaffected by a particular frame. As with other attitude scales, the measurement process involves standardizing a set of questions on a frame-free benchmark for attitudes and then observing the shifts in attitude as a result of the component frames.

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<sup>5</sup> See also Kuhberger 1995.

## 5. Risk attitude assessment and asset allocation advice

Callan and Johnson (2002) see client risk attitude or tolerance profiling as an attempt to bring psychological factors to bear on the issue of economic optimality. In terms of asset allocation advice, the purpose of risk profiling is to provide an accurate assessment of a client's risk profile that will enable the adviser:

“to develop a tailored financial plan that better reflects the client's perception of the acceptable trade-off between risk and the compensation required for bearing risk. By making the client's risk tolerance explicit and understandable, the planner is able to help the client identify any mismatch between psychological and financial needs, then work with the client to make any trade-offs that might be required.” (p. 133).

### *5.1 Portfolio Pickers*

The second area of criticism over current risk profiling practice is the use of profiling as a disguised form of 'portfolio picker'. Although this issue is distinct from framing considerations, the use of risk profiling by the financial advisor will influence how framing can adversely affect a client through inappropriate investment asset allocations or choices. The major use of risk profiling is to map a client's needs and preferences into investment asset allocation advice or recommendations. But current practices often merely uses risk profiling as a poorly disguised one step technique for picking one of a pre-classified range of portfolios that are supposed to reflect the client's risk attitudes, investment preference and requirements.

This form of profiling is particularly prevalent in franchise operations. Many large banking and insurance companies run financial planning divisions through geographical agencies or franchises. The parent company will construct standardized portfolios categorized in risk-return terms as either 'conservative', 'balanced' or 'growth' in their orientation. Licensed agents or franchisees will then either formally or informally collect verbal, written response and documentary evidence from the client as to their broad risk attitude profile. The profile is then matched to a

standardized portfolio category that will then be offered to the client by the agent or franchisee.

Smaller financial planners who operate independently will usually make their recommendations based on similar classifications of portfolios by fund managers. Asset allocation to tailor a portfolio to an individual client's attitudes, preferences and capacity then becomes a matter of blending a mix of these portfolios in each of the asset classes.

Proquest (2001) describes this portfolio picking as a single step procedure in which scored questionnaires about a client's age, experience, attitudes to risk, and time horizon are used to select one of a range of "profiles". Each risk profile is linked with one of a limited number of pre-constructed asset allocation portfolios.

ProQuest (2001) identify five conceptual flaws that negate the validity and appropriateness to the client of these portfolio picking procedures.

1. They ignore principles of test construction
2. Situational questions preclude assessment of risk tolerance per se.
3. No assessment of the return required to meet the client's goals
4. No identification of any mis-match between the client's risk tolerance and the inherent risk in the portfolio return which may negate the appropriateness of the chosen asset allocation.
5. No consideration of any alternative portfolios if a mis-match between the inherent risk and risk tolerance occurs.

The major point here is that adverse framing effects are likely to be compounded when inserted into an already fundamentally flawed risk profiling process.

## 6. Framing effects and Industry Standards

Callan and Johnson stress the need for a high internal validity and reliability in risk attitude assessment processes. Risk tolerance or attitude scores require completeness, accuracy consistency and relevance. Lack of these measurement qualities compromises assessment reliability and comparability and may lead to inappropriate investment advice or recommended investment choices.

### *6.1 Internal decision frames*

However, even more fundamental problems associated with the psychology of investment behavior may pre-empt measurement issues. Both risk attitudes and risk assessment processes are essentially context dependent. Just as externally imposed frames of reference may alter a client's risk attitude, so a client's own framing of decisions may affect the degree of investment risk they will tolerate for alternative sets of investment decisions. Or indeed whether they reverse attitudes between classes of investment decisions.

The attitude a client adopts towards a particular investment decision or class of investment decisions may well depend on how the client mentally constructs or 'frames' those decisions. Indeed a client may hold what appear to be mutually contradictory attitudes and decision making heuristics towards different types of investment choices. A client who is risk assertive when deciding on short-term investments using windfall capital may be considerably more risk averse when allocating life savings to long term investments such as superannuation investments that will determine levels of retirement income.

A change of frame reference may create reversals in risk attitudes. If the financial planner believes that the client consistently adopts a particular ‘frame’ when making investment decisions then the frames used in the question/response process should conform to that heuristic. Alternatively, where there is no evidence of such consistency, then an attempt may be required to get at the underlying ‘frame-free’ risk attitude or tolerance of the respondent.

## *6.2 Industry standards?*

The Financial Services Reform Act is a first step in requiring financial advisors to take serious account of their client’s beliefs and attitudes when giving investment advice. But the Act’s silence on risk attitude assessment requirements is problematic for the financial services industry. Presumably, financial planners are under onus of proof to demonstrate the legitimacy of their ‘reasonable enquiries’ process and attitude/tolerance assessments. Damage suits for large potential losses based on inappropriate advice or decisions may be hard to defend if a ‘reasonable person’ test indicates that the professional financial planner should have known about framing effects or had a duty of care to ensure process compliance with basic psychometric principles.

The industry may need to assist its members to comply with the Act by developing industry standards for risk attitude/tolerance assessment processes. The complexity of the issues enhances the case for industry guidance to members. There is an urgent need for a structured approach to development of industry standards on

process requirements for concept valence, minimum compliance with psychometric principles and control of response conditioning factors.

This urgency is enhanced by the upsurge of software based risk tolerance profilers and risk attitude assessors which have the capacity to embed framing effects across whole firms and groups of franchises if they are not made to conform to minimum industry standards. Psychometric certification is significant. But it is not the only, or indeed the most important, issue. A software profiler can be psychometrically valid in terms of attitude measurement scales but still be both conceptually unsound and practically dangerous if it ignores behavioral considerations such as decision framing, attitude reversal and choice heuristics in asset allocation decisions.

## References

- Antonides, G., & Van Der Sar, N. L. (1990). Individual expectations, risk perception and preferences in relation to investment decision making. *Journal of Economic Psychology, 11*(2), 227-245.
- ASIC. (2003). Policy Statement 175, Licensing: Financial Product Advisers - Conduct and Disclosure. *Policy Statement 03-197, Australian Securities and Investments Commission, Canberra.*
- ASIC. (February 2003). *ASIC/ASA Survey on the quality of financial planning advice: Australian Securities and Investments Commission.*
- Callan, V. J., & Johnson, M. (2002). Some Guidelines For Financial Planners In Measuring And Advising Clients About Their Levels Of Risk Tolerance. *Journal of Personal Finance, Institute of Personal Financial Planning, Kansas State University., 1*(1), 31.
- Chapman, G. (1997). Risk Attitude and Time Discounting. *Medical Decision Making, 17*(3), 365-366.
- Commonwealth of Australia. (2001). Corporations (Financial Services Reform Amendments) Act 2002.
- Davey, G. (2000). Scientific Risk Profiling: Risk Tolerance, Risk Profiling and the Financial Planning Process. *ProQuest, Sydney.*
- Druckman, J. N. (2001). Evaluating framing effects. *Journal of Economic Psychology, 22*(1), 91.
- Elliott, C. S., & Archibald, R. B. (1989). Subjective framing and attitudes towards risk. *Journal of Economic Psychology, 10*(3), 321-328.
- Elsayed, H., & Martin, J. (1998). "Survey of Financial Risk Tolerance- Australian Technical Report": Chandler & Macleod Consultants.
- Evensky, H. (1997). Risk is a four-letter word. *Journal of Financial Planning, 10*(5), 74.
- Faludi, P. (2002). Recent Financial Services Reforms. *Global Finance Law Update; Ernest and Young, Sydney, 1*(1), 1.
- Highhouse, S., & Yuce, P. (1996). Perspectives, Perceptions, and Risk-Taking Behavior. *Organizational Behavior and Human Decision Processes, 65*(2), 159-167.

- Kahneman, D., & Riepe, M. W. (1998). Aspects of investor psychology. *Journal of Portfolio Management*, 24(4), 52.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-291.
- Kuhberger, A. (1998). The Influence of Framing on Risky Decisions: A Meta-analysis. *Organizational Behavior and Human Decision Processes*, 75, 23-55.
- Kuhberger, A., Schulte-Mecklenbeck, M., & Perner, J. (1999). The Effects of Framing, Reflection, Probability, and Payoff on Risk Preference in Choice Tasks. *Organizational Behavior and Human Decision Processes*, 78(3), 204-231.
- Kuhberger, A., Schulte-Mecklenbeck, M., & Perner, J. (2002). Framing decisions: Hypothetical and real. *Organizational Behavior and Human Decision Processes*, 89, 1162-1175.
- Levin, I., Schneider, S., & Gaeth, G. (1998). All Frames Are Not Created Equal: A Typology and Critical Analysis of Framing Effects. *Organizational Behavior and Human Decision Processes*, 76, 149-188.
- Mandel D.R. (2001). Gain-Loss Framing and Choice: Separating Outcome Formulations from Descriptor Formulations. *Organizational Behavior and Human Decision Processes*, 85, 56-76.
- ProQuest. (1999). *Letter of confirmation of psychometric validity on a software profiler*: Applied Psychology unit, University of New South Wales.
- Saucier, G. (2000). Isms and the structure of social attitudes. *Journal of Personality and Social Psychology*, 78, 366-385.
- Spits, J. (2003). *FPA faces fire on risk profiling*. Retrieved 24 July, 2003, from <http://www.moneymanagement.com.au/articles/f1/0c0185f1.asp>
- Tversky, A., & Kahneman, D. (1986). Rational choice and the framing of decisions. *Journal of Business*, 59, 251-278.