

Appendix 1

Research Instrument

and

Covering Letter

Investment Attitudes Questionnaire

Please answer the questions below and return your completed questionnaire in the pre paid envelope provided by 9th August 2004. This should take approximately 15 minutes to complete. There are no right or wrong answers, please answer based on your own experience. If you want to be included in the prize draw, please complete your name and address at the end of the questionnaire. All replies will remain confidential.

SECTION 1 – INVESTMENT INFORMATION AND EXPERIENCE

Q1 Please assess the importance of the following information sources in deciding how to invest a lump sum of £10,000 or more.

Source of Information	Very Important	Important	Somewhat Important	Not Important
Own knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Past experience with investments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friend or relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Independent Financial Adviser (IFA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product Literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product Provider's staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advertisements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Money pages of the national press	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specialist magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet search engine e.g. Google, Yahoo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product Provider's website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Independent website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q2 If you use newspapers or magazines for investment information, please tick all those that you would consult when considering making an investment.

Sun/Star	<input type="checkbox"/>	Observer/Sunday Business	<input type="checkbox"/>
Mail/Mirror	<input type="checkbox"/>	Specialist magazine, for example: Investor's Chronicle, Moneywise, Money Management	<input type="checkbox"/>
Times/Telegraph/Independent/Guardian	<input type="checkbox"/>		
Financial Times	<input type="checkbox"/>		

Q3 Please indicate the extent to which you agree with the following statements about your knowledge and experience with investments:

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
I know a lot about investing money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am very experienced in investing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q4 Thinking about a recent lump-sum investment you have made, please rate your involvement in the decision making process

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
Very important decision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decision required a lot of thought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A lot to lose if you chose the wrong product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decision was mainly logical or objective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decision was based mainly on functional facts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decision expressed one's personality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decision was based on a lot of feeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q5 Which of the following types of investment products do you currently hold or have held in the past?

Please tick **all those** that apply.

	Currently Hold	Have Held in Past		Currently Hold	Have Held in Past
Deposit account	<input type="checkbox"/>	<input type="checkbox"/>	National Savings	<input type="checkbox"/>	<input type="checkbox"/>
Government Bonds (gilts)	<input type="checkbox"/>	<input type="checkbox"/>	PEP	<input type="checkbox"/>	<input type="checkbox"/>
Guaranteed Insurance Bond GIB (Life Insurance bond)	<input type="checkbox"/>	<input type="checkbox"/>	Property (excluding your own house)	<input type="checkbox"/>	<input type="checkbox"/>
			Stocks and Shares	<input type="checkbox"/>	<input type="checkbox"/>
ISA – mini cash	<input type="checkbox"/>	<input type="checkbox"/>	Structured Product (no risk to capital) *	<input type="checkbox"/>	<input type="checkbox"/>
ISA – mini stocks and shares	<input type="checkbox"/>	<input type="checkbox"/>	Structured Product (capital at risk) **	<input type="checkbox"/>	<input type="checkbox"/>
ISA – mini insurance	<input type="checkbox"/>	<input type="checkbox"/>	TESSA	<input type="checkbox"/>	<input type="checkbox"/>
ISA – maxi stocks and shares	<input type="checkbox"/>	<input type="checkbox"/>	Unit Trusts	<input type="checkbox"/>	<input type="checkbox"/>
Investment Trusts	<input type="checkbox"/>	<input type="checkbox"/>	With Profits Bond	<input type="checkbox"/>	<input type="checkbox"/>

* **Structured Product (no risk to capital):** A product where the return is linked to the performance of one or more stock market indices but where the minimum return is your original investment

** **Structured Product (capital at risk):** A product that offers fixed income but the return of your capital at the end of the term will be reduced if the stock market is below its starting level at the end of the investment term.

SECTION 2: RISK PERCEPTIONS

Q6 For each of the following statements, please indicate your likelihood of engaging in each activity:

	Very Unlikely	Unlikely	Likely	Very Likely
Betting a day's income at the horse races	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 10% of your annual income in a moderate growth unit trust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lending a friend an amount equivalent to one month's income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 5% of your income in a very speculative stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Betting a day's income on the outcome of a sporting event (e.g. football match)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 5% of your annual income in a building society deposit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 10% of your annual income in government bonds (gilts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gambling a week's income at a casino	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking a job where you get paid exclusively on a commission basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q7 For each of the following statements, please indicate your initial reaction of how risky each situation is:

	Not at all Risky	A bit Risky	Moderately Risky	Extremely Risky
Betting a day's income at the horse races	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 10% of your annual income in a moderate growth unit trust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lending a friend an amount equivalent to one month's income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 5% of your income in a very speculative stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Betting a day's income on the outcome of a sporting event (e.g. football match)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 5% of your annual income in a building society deposit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing 10% of your annual income in government bonds (gilts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gambling a week's income at a casino	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking a job where you get paid exclusively on a commission basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 3: INVESTMENT CHOICES

The following investment types are considered in this section:

Deposit Account: A bank or building society account that allows you to withdraw your money without penalty at any time

Property: A direct investment in property, which excludes your own house but includes second homes, buy to let property and commercial property

Stocks and Shares: Stocks and shares in UK companies such as BP, Marks and Spencers, BT etc, also known as equities

Structured Capital at Risk Bond: A product that currently pays 6% p.a. income but the return of your capital at the end of the term will be reduced by 1% for each 1% the stock market is below its starting level at the end of the investment term.

Q8 For each type of investment indicated, please answer the following questions assuming that you have invested in it.

	Deposit Account					Property				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
a) This Investment bears a high risk of losing money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) This investment bears a high risk of missing personal investment objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) I feel uncertain about investing in this investment as I feel uninformed about it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Investing in this investment also entails good chances to realise higher, above average returns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) I think there will be significant variations in performance over time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Investors who experience losses with this type of investment are very likely to lose most or all of their investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) I would worry very much if I had invested in this type of investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) This type of investment is very well regulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	UK Stocks and Shares					Structured Capital at Risk Bond (See top of page for definition)				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
a) This Investment bears a high risk of losing money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) This investment bears a high risk of missing personal investment objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) I feel uncertain about investing in this investment as I feel uninformed about it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Investing in this investment also entails good chances to realise higher, above average returns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) I think there will be significant variations in performance over time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Investors who experience losses with this type of investment are very likely to lose most or all of their investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) I would worry very much if I had invested in this type of investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) This type of investment is very well regulated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q9 For each of the investment types in Q8, please estimate the amount you would expect back at the end of the next five years assuming you have £10,000 to invest.

Note: Over the last five years, if you had invested £10,000 you would have got back on average £11,716 from a deposit account, £19,918 from property, £8,528 from UK stocks & shares and £10,420 from a structured capital at risk bond.

Tick **one box** in each row only.

	Less than £6,000	£6,000 to £7,749	£7,750 to £8,799	£8,800 to £9,999	£10,000 to £11,500	£11,501 to £12,750	£12,751 to £16,000	More than £16,000
Deposit Account	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UK Stocks & Shares	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Structured Capital at Risk Bond	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q10 Please allocate an amount of £10,000 between the following investment types according to your investment preferences:

Investment Type	Investment Amount
Deposit Account	
Property	
UK Stocks & Shares	
Structured capital at risk bond	
Total	£10,000

SECTION 4: YOUR OPINION OF PINNACLE INSURANCE PLC

Q11 Please indicate the extent to which you agree with the following statements:

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
Pinnacle Insurance plc offers superior performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My Investment is safe with Pinnacle Insurance plc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pinnacle insurance plc fits my life concept	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pinnacle Insurance plc is special	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pinnacle Insurance plc is prestigious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 5: GENERAL INFORMATION

Q12 Please indicate your age group

18 – 29 30-39 40-49 50-59 60-69 70-79 80 and over

Q13 Please indicate your gender: Male Female

Thank you for completing this questionnaire. If you would like to be entered into the free prize draw for a case of wine, please complete your details below.

Name _____

Address _____

Post Code _____

Please return in the pre paid envelope, by 9th August 2004, to Investment Department, Pinnacle Insurance plc, Pinnacle House, A1 Barnet Way, Borehamwood, Hertfordshire, WD6 2XX.

Private & Confidential

<Pholder_1 >
<Address1 >
<Address2 >
<Address3 >
<Address4 >
<Address5 >
<PostCode >

14 July 2004

Dear <Title> <Surname>

Consumer Research

I am writing to you as a valued customer of Pinnacle Insurance plc for your help in completing some consumer research. This research is important as it will help us better understand your needs and attitudes to investments and help us to improve our service to you. The information will also be used to provide data for an MBA dissertation I am undertaking at Henley Management College. Please be assured that all information will remain confidential.

As an incentive to complete the questionnaire, all completed questionnaires will be entered into a prize draw for a case of wine. The closing date for this is 9th August 2004. A pre paid envelope is provided for the return of your completed questionnaire.

If you prefer, the questionnaire can be completed on line, quoting reference «Ref», at <http://www.surveymonkey.com/s.asp?u=12208548923>

If you have any questions about this questionnaire, please contact our Investment Department on 020 8207 9007.

Thank you for your assistance.

Yours sincerely,

Kathy Byrne
Managing Director - Investments
Pinnacle Insurance plc
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Appendix 2 Scoring of Results

Question 1 Importance of information sources

Response	Score
Very Important	4
Important	3
Somewhat Important	2
Not Important	1

Question 2 Use of Newspapers or Magazines for investment information

Score of 1 for titles selected, 0 otherwise

Question 3 Expertise and Question 4 FCB Grid

Response	Score
Strongly Agree	4
Agree	3
Disagree	2
Strongly Disagree	1
Don't know	0

Question 5 Types of Investments Held

Score of 2 is currently hold, Score of 1 if held in past and 0 if not held

Question 6 Risk Likelihood

Response	Score
Very Likely	4
Likely	3
Unlikely	2
Very Unlikely	1

Question 7 Risk Perception

Response	Score
Extremely risky	4
Moderately Risk	3
A bit risky	2
Not at all risky	1

Question 8 Risk Perceptions

Response	Score
Strongly Agree	4
Agree	3
Disagree	2
Strongly Disagree	1
Don't know	0

Note: Item h was reverse scored

Question 9 Expected Investment Return

Response	Score
Less than £6,000	1
£6,000 to £7,749	2
£7,750 to £8,799	3
£8,800 to £9,999	4
£10,000 to £11,500	5
£11,501 to £12,750	6
£12,751 to £16,000	7
More than £16,000	8

Question 10 Investment Allocation

Answers in the range £0 to £10,000, all four answers to sum to £10,000

Question 11 Brand Image

Response	Score
Strongly Agree	4
Agree	3
Disagree	2
Strongly Disagree	1
Don't know	0

Question 12 Age Group

Response	Score
18 to 29	1
30 to 39	2
40 to 49	3
50 to 59	4
60 to 69	5
70 to 79	6
80 and over	7

Question 13 Gender

Response	Score
Male	1
Female	2

Appendix 3 Detailed Statistical Results

H1: External information sources are more important than internal information sources

Null Hypothesis: There is no difference in importance in internal and external information sources

Table A3.1 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Internal info sources score	3.3263	308	.59983	.03418
	External info sources score	2.0234	308	.44058	.02510

Table A3.2 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Internal info sources score & External info sources score	308	.155	.007

Table A3.3 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Internal info sources score - External info sources score	1.3029	.68713	.03915	1.2259	1.3800	33.278	307	.000

H2: Personal sources of external information are more important than non-personal sources

Null Hypothesis: There is no difference in importance between personal and non-personal information sources

Table A3.4 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Personal sources of external info	1.9225	310	.60683	.03447
	Non personal sources external info	2.0690	310	.50650	.02877

Table A3.5 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Personal sources of external info & Non personal sources external info	310	.267	.000

Table A3.6 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Personal sources of external info - Non personal sources external info	-.1465	.67858	.03854	-.2223	-.0706	-3.800	309	.000

H3: Outcome history (past risk propensity) is positively correlated with (current) risk propensity

Table A3.7 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Current Inv Risk Score	1.8488	365	.34890	.01826
	Past Inv Risk score	1.7917	365	.27238	.01426

Table A3.8 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Current Inv Risk Score & Past Inv Risk score	365	.779	.000

Table A3.9 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Current Inv Risk Score - Past Inv Risk score	.0571	.21874	.01145	.0346	.0796	4.986	364	.000

H4: Risk propensity is negatively correlated with risk perception

Table A3.10 Correlations

			Deposit Risk assessment	DEPRANK
Spearman's rho	Deposit Risk assessment	Correlation Coefficient	1.000	-.011
		Sig. (2-tailed)	.	.837
		N	339	329
	DEPRANK	Correlation Coefficient	-.011	1.000
		Sig. (2-tailed)	.837	.
		N	329	349

Table A3.11 Correlations

			PROPRANK	Property Risk assessment
Spearman's rho	PROPRANK	Correlation Coefficient	1.000	-.280(**)
		Sig. (2-tailed)	.	.000
		N	349	297
	Property Risk assessment	Correlation Coefficient	-.280(**)	1.000
		Sig. (2-tailed)	.000	.
		N	297	307

** Correlation is significant at the 0.01 level (2-tailed).

Table A3.12 Correlations

			Equity Risk assessment	EQRANK
Spearman's rho	Equity Risk assessment	Correlation Coefficient	1.000	-.310(**)
		Sig. (2-tailed)	.	.000
		N	305	294
	EQRANK	Correlation Coefficient	-.310(**)	1.000
		Sig. (2-tailed)	.000	.
		N	294	349

** Correlation is significant at the 0.01 level (2-tailed).

Table A3.13 Correlations

			SCARP Risk assessment	SCARRANK
Spearman's rho	SCARP Risk assessment	Correlation Coefficient	1.000	-.146(*)
		Sig. (2-tailed)	.	.012
		N	306	294
	SCARRANK	Correlation Coefficient	-.146(*)	1.000
		Sig. (2-tailed)	.012	.
		N	294	349

* Correlation is significant at the 0.05 level (2-tailed).

H5: There is positive correlation between risk perception and expected returns for expert investors

H6: There is negative correlation between risk perception and expected return for novice investors

Table A3.14 Correlations

Group by expertise				Deposit account future performance	Deposit Risk assessment
Missing Data	Spearman's rho	Deposit account future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .13	-.304 .363 11
		Deposit Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.304 .363 11	1.000 .12
Novices	Spearman's rho	Deposit account future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .166	-.067 .406 155
		Deposit Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.067 .406 155	1.000 .163
Experts	Spearman's rho	Deposit account future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .172	-.180(*) .022 162
		Deposit Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.180(*) .022 162	1.000 .164

Correlation is significant at the 0.05 level (2-tailed).

Table A3.15 Correlations

Group by expertise				Property - future performance	Property Risk assessment
Missing Data	Spearman's rho	Property - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .7	-.086 .855 7
		Property Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.086 .855 7	1.000 .9
Novices	Spearman's rho	Property - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .154	-.071 .411 136
		Property Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.071 .411 136	1.000 .151
Experts	Spearman's rho	Property - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .155	-.097 .258 138
		Property Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.097 .258 138	1.000 .147

Table A3.16 Correlations

Group by expertise				Equity - future performance	Equity Risk assessment
Missing Data	Spearman's rho	Equity - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .096 9	-.056 .906 7
		Equity Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.056 .906 7	1.000 .096 9
Novices	Spearman's rho	Equity - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .162 162	-.155 .067 140
		Equity Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.155 .067 140	1.000 .155 150
Experts	Spearman's rho	Equity - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .168 168	-.193(*) .021 143
		Equity Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.193(*) .021 143	1.000 .193 146

* Correlation is significant at the 0.05 level (2-tailed).

Table A3.17 Correlations

Group by expertise				Scarp - future performance	SCARP Risk assessment
Missing data	Spearman's rho	Scarp - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .800 8	-.158 .800 5
		SCARP Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.158 .800 5	1.000 .158 9
Novices	Spearman's rho	Scarp - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .153 153	-.008 .931 133
		SCARP Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.008 .931 133	1.000 .008 149
Experts	Spearman's rho	Scarp - future performance	Correlation Coefficient Sig. (2-tailed) N	1.000 .158 158	-.270(**) .001 139
		SCARP Risk assessment	Correlation Coefficient Sig. (2-tailed) N	-.270(**) .001 139	1.000 .270 148

** Correlation is significant at the 0.01 level (2-tailed).

H7: Return expectations will be driven by past performance information provided as an anchor

Null Hypothesis: There is no difference in return expectations for questionnaire 1 and questionnaire 2.

Table A3.18 Group Statistics

	ANCHOR	N	Mean	Std. Deviation	Std. Error Mean
Deposit account - future performance	1.00	188	4.50	2.116	.154
	2.00	163	5.14	1.749	.137
Property - future performance	1.00	166	5.39	2.343	.182
	2.00	150	6.41	1.739	.142
Equity - future performance	1.00	182	4.64	2.262	.168
	2.00	157	4.87	1.932	.154
Scarp - future performance	1.00	170	4.05	2.185	.168
	2.00	149	4.64	1.846	.151

Table A3.19 Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Deposit account - future performance	Equal variances assumed	18.744	.000	-3.065	349	.002	-.64	.209	-1.052	-.230
	Equal variances not assumed			-3.107	348.240	.002	-.64	.206	-1.047	-.235
Property - future performance	Equal variances assumed	24.852	.000	-4.365	314	.000	-1.02	.234	-1.482	-.561
	Equal variances not assumed			-4.429	302.846	.000	-1.02	.231	-1.476	-.568
Equity - future performance	Equal variances assumed	8.387	.004	-.993	337	.321	-.23	.230	-.682	.224
	Equal variances not assumed			-1.005	336.969	.316	-.23	.228	-.677	.219
Scarp - future performance	Equal variances assumed	9.363	.002	-2.562	317	.011	-.58	.228	-1.034	-.136
	Equal variances not assumed			-2.590	316.593	.010	-.58	.226	-1.029	-.141

Glossary

Deposit Account: A bank or building society account that allows you to withdraw your money without penalty at any time.

Financial Services Authority (FSA): From December 2001, the regulator for both prudential supervision of insurance companies and also for Conduct of Business. Prudential supervision was previously carried out by the Treasury and Conduct of Business supervision was carried out by the Personal Investment Authority (PIA).

Guaranteed Equity Bond (GEB): An investment product where the overall return is dependent on performance of one or more stock market indices. The growth version normally has a full capital guarantee with the amount of the final payment being dependent on stock market performance. The income version will normally pay a higher fixed income than a GIB, but the return of capital will depend on stock market performance.

Guaranteed Income Bond (GIB): An insurance policy that pays a fixed income each year and returns your investment at the end of a fixed term. Usually also includes Guaranteed Growth bonds in generic terminology

Guaranteed Growth Bond: A Guaranteed Income Bond where the income is rolled up and paid out at the end of the fixed term.

Independent Financial Advisor (IFA): An advisor that is qualified to provide independent investment advice to the general public. The IFA must carry out a fact

find to assess the customer's needs and will then select the most appropriate products and product provider(s) from the entire market.

Investors Club: Pinnacle customers that have bought policies directly, usually by responding to newspaper advertisements. There are currently around 1000 investors club members.

Property: A direct investment in property, which excludes your own house but includes second homes, buy to let property and commercial property.

Stocks and Shares: Stocks and shares in UK companies such as BP, Marks and Spencers, BT etc, also known as equities.

Structured Product: An insurance policy where the assets the insurer buys to back the contract are specially structured to exactly match the liabilities. Guaranteed Equity Bonds are an example of a structured product.

Structured Product (no risk to capital): A product where the return is linked to the performance of one or more stock market indices but where the minimum return is your original investment.

Structured Product (capital at risk): A product that offers fixed income but the return of your capital at the end of the term will be reduced if the stock market is below its starting level at the end of the investment term. This is called a SCARP (Structured Capital At Risk Product) by the FSA.

With Profit Bond: An insurance policy where the insurer declares an annual bonus, which is added to the policy benefits. Once bonuses are declared they are guaranteed. At the end of the term a terminal bonus is declared which is based on the return on the underlying with profits fund. The amount the customer receives at the end of the term is the sum assured plus declared annual and terminal bonuses. The insurer has complete discretion over bonus declarations so that the investor does not know at outset what return they are likely to get.

Bibliography

Anderson, Rolph E. (1973), Consumer dissatisfaction: The effect of disconfirmed expectancy on perceived product performance, *Journal of Marketing Research*, February 1973, Volume 10, Issue 1, p8, Chicago

Assael, H, (1995) *Consumer Behavior and Marketing Action, Fifth Edition*, Cincinnati, South-Western College Publishing

Bar-Hillel, M (1982) Studies of representativeness, in Kahneman, Slovic and Tversky, editors, *Judgment under Uncertainty: Heuristics and biases*, pp69 – 83, Cambridge University Press, Cambridge, UK

Baz, Jamil; Briys, Eric; Bronnenberg, Bart J; Cohen, Michèle; Kast, Robert; Viala, Pascale; Wathieu, Luc; Weber, Martin; Wertenbroch, Klaus (1999) Risk Perception in the Short Run and in the Long Run, *Marketing Letters*, Volume 10 Issue 3, p267-283

Bearden, William and Netemeyer, Richard (1999), *Handbook of Marketing Scales: multi-item measures for marketing and consumer behavior research*, Sage, California

Camerer, Colin (1998), Prospect Theory in the Wild: Evidence from the Field, *Social Science Working Paper 1037*

Camerer, Colin and Lovo, Dean (2000), Overconfidence and Excess Entry - An Experimental Approach in Kahneman, D and Tversky, A (editors), *Choices Values and Frames*, Cambridge University Press, Russell Sage Foundation

Combs, B and Slovic, P (1979), Causes of death: Biased newspaper coverage and biased judgments, *Journalism Quarterly*, 56, 837 –843

Dean, Wesley and Thompson, Paul (1995), The Varieties of Risk, *Working Paper*, University of Alberta

Einhorn, H; Hogarth, R, (1986) Decision Making under Ambiguity, *Journal of Business*, Volume 59, Issue 4, Part 2: The Behavioural Foundations of Economic Theory (Oct 1986), S225-S250

Fischhoff, Baruch, (1982) For those condemned to study the past: Heuristics and biases in hindsight in Kahneman, Slovic and Tversky, editors, *Judgment under Uncertainty: Heuristics and biases*, pp335 – 351, Cambridge University Press, Cambridge, UK

Ganzach, Y (2000) Judging Risk and Return of financial assets, *Organizational Behavior and Human Decision Processes*, Vol. 83, pp 353-370.

Goodman, A. (2004), *Consumer Understanding of Risk*, The Actuarial Profession, London

Harrison, T, (2003) Understanding the behaviour of financial services consumers: A Research Agenda, *Journal of Financial Services Marketing*, London, Aug 2003. Vol 8, Issue 1, page 6.

Harvey, John T, (1998) Heuristic judgment theory, *Journal of Economic Issues*; Mar98, Vol. 32 Issue 1, p47, 18p.

Johnson, E; Hershey, J; Meszaros, J and Kunreuther, H (1993), Framing, Probability Distortions and Insurance Decisions, *Journal of Risk and Uncertainty*, Volume 7, p35-51

Jordan, J; Kass, K, (2002) Advertising in the mutual fund business: the role of judgemental heuristics in private investors' evaluation of risk and return, *Journal of Financial Services Marketing*, London, Aug 2002. Vol 7, Issue 2, page 129 – 140.

Kahneman, D (2000) Preface, in Kahneman and Tversky, editors, *Choices, Values and Frames*, ppix – xvii, Cambridge University Press, Russell Sage Foundation

Kahneman, D; Knetsch, J; Thaler, R (1991) The Endowment Effect, Loss Aversion and Status Quo Bias, *Journal of Economic Perspectives*, Volume 5, Issue 1, p193-206

Kahneman, D; Tversky, A, (1972) Subjective probability: A judgment of representativeness, *Cognitive Psychology*, 1972, 3, p430-454

Kahneman, D; Tversky, A, (1973) On the psychology of prediction, *Psychological Review*, 1973, 80, p237-251

Kahneman, D; Tversky, A, (1979) Prospect Theory: An analysis of decision under risk, *Econometrica*, 1979, Vol 47 Issue 2, p263-91.

Kleiser, S and Mantel, S (1994), The Dimensions of Consumer Expertise: A Scale Development, in Ravi Achrol and Andrew Mitchell (eds), *AMA Summer Educators' Proceedings*, Vol 5, pp20-26, Chicago, American Marketing Association

Kotler, P. (2003) *Marketing Management*, 11 edition, U.S.A., Pearson Education Inc.

Laurent, Gilles and Kapferer, Jean-Noel (1985), Measuring consumer involvement profiles, *Journal of Marketing Research*, Volume 22, Issue 1; p41-53, Chicago

Laurent, Gilles and Kapferer, Jean-Noel (1986), Consumer Involvement Profiles: A New Practical Approach to Consumer Involvement, *Journal of Advertising Research*, Volume 25, Issue 6, p48-56

Muradoglu, G (2002), Portfolio Managers' and Novices' forecasts of risk and return: are there predictable forecast errors, *Journal of Forecasting*, Volume 21

Olsen, R (1997) Investment Risk: The Expert's Perspective, *Financial Analysis Journal*, Vol.53, No. 2, pp62-66.

Plous, Scott (1993), *The Psychology of Judgment and Decision Making*, Temple University Press, Philadelphia

Rabin, Matthew (1998), Psychology and Economics, *Journal of Economic Literature*, Vol XXXVI, Mar 98, pp11-46

Ratchford, Brian (1987), New insights about the FCB grid, *Journal of Advertising Research*, Aug/Sep87, Volume 27, Issue 4, p24-38

Samuelson, W and Zeckhauser, R (1988), Status Quo Bias in Decision Making, *Journal of Risk and Uncertainty*, 1, p7 – 59

Sitkin, S.B. and Pablo, A.L (1992), Reconceptualizing the determinants of risk behaviour, *Academy of Management Review*, 17, p9-39

Sitkin, S.B. and Weingart, L.R. (1995), *Academy of Management Journal*, Vol 38, No. 6, p1573-1582

Slovic, Paul (1991), The Construction of Preference, *American Psychologist*, Volume 50 Issue 5, pp364-71

Thaler, Richard H. (1999), Mental Accounting Matters, *Journal of Behavioral Decision Making*, 12, pp183-206

Thaler, Richard H. (1980), Towards a Positive Theory of Consumer Choice, *Journal of Economic Behavior and Organization*, 1, pp39-60

Theil, Michael, (2002) The Value of Personal Contact in Marketing Insurance: Client Judgments of Representativeness and Mental Availability, *Risk Management & Insurance Review*; Fall2003, Vol. 6 Issue 2, p145, 13p.

Tversky, A; Kahneman, D (1971) Belief in the law of small numbers, *Psychological Bulletin*, 2, pp105 – 110.

Tversky, A; Kahneman, D (1974) Judgment under uncertainty: Heuristics and Biases, *Science*, Vol 185, pp1124 – 1131.

Tversky, A; Kahneman, D (1982) Judgments of and by representativeness, in Kahneman, Slovic and Tversky, editors, *Judgment under Uncertainty: Heuristics and biases*, pp84 – 100, Cambridge University Press, Cambridge, UK

Weber, Elke and Milliman, Richard (1997), Perceived risk attitudes: Relating risk perception to risky choice, *Management Science*, Volume 43, Issue 2,p123-144

Weber, Elke; Blais, Ann- Renee and Betz, Nancy (2002), A domain-specific risk-attitude scale: measuring risk perceptions and risk behaviors, *Journal of Behavioral Decision Making*, Volume 15, Issue 4, Chichester