## PERSONAL FINANCIAL RISK TOLERANCE REPORT

<table>
<thead>
<tr>
<th>Name</th>
<th>Score</th>
<th>Agreed Score</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jean Sample 25Q AUS</td>
<td>50</td>
<td>42</td>
<td>01 March 2018</td>
</tr>
<tr>
<td>John Sample 25Q AUS</td>
<td>50</td>
<td>51</td>
<td>01 March 2018</td>
</tr>
</tbody>
</table>
Your risk tolerance score enables you to compare yourself to a representative sample of the adult population. Your score is 50. This is the average score.

When scores are graphed they form a bell-curve as shown below. To make the scores more meaningful, the 0 to 100 scale has been divided into seven risk groups. Your score places you in risk group 4.

In answer to the last question, you estimated your score would be 50. Congratulations! You picked your score exactly. Most people under-estimate their score by a few points.
Overview
The description of risk group 4 which follows provides a summary of the typical attitudes, values, preferences and experiences of those in your risk group. It summarizes how those in your risk group usually answer the risk tolerance questionnaire. Five of your answers differed from this description. They are shown in italics below the relevant part and in the Summary section that follows. These differences are normal, they fine-tune the description to you personally.

Making Financial Decisions
Investors in risk group 4 think of "risk" as "uncertainty" and are prepared to take a medium degree of risk with their financial decisions (Q3 & 10). They have a reasonable amount of confidence in their ability to make good financial decisions and usually feel somewhat optimistic about their major decisions after they make them (Q12 & 7). When faced with a major financial decision some are usually more concerned about the possible losses while others are usually more concerned about the possible gains (Q6).
- You usually feel somewhat pessimistic about your major financial decisions after you make them.

Employment
They would be slightly more likely to choose more job security with a small pay increase than less job security with a big pay increase and most would choose to be paid mainly salary and others would choose an equal mix of salary and commission (Q8 & 5).

Financial Disappointments
When things go wrong financially they are as likely to adapt somewhat uneasily as somewhat easily (Q2).

Financial Past
They have taken a small to medium degree of risk with their past financial decisions, more likely medium, and have never invested a large sum of money in a risky investment mainly for the "thrill" of seeing whether it went up or down in value (Q9 & 4).

Investment
It is somewhat more important that the value of their investments retains its purchasing power than that it does not fall (Q18). For some, a fall of 10% in the total value of their investments would make them feel uncomfortable but for most it would take a fall of 20% (Q14). In recent years, for most there have been no changes in the risk of their personal investment (Q14).
investments but for those that have changed, the changes
have been mostly towards lower risk (Q19). Over ten years
they expect an investment portfolio to earn, on average,
about two to two and a half times the rate from term
deposits, more likely two times (Q21).

Given the portfolio choices below, they prefer Portfolios 3 or
4, more likely Portfolio 4 (Q16).

- It is somewhat more important that the value of your
  investments does not fall (than that it retains its purchasing
  power.)

Government Benefits and Tax Advantages
So long as there was only a small chance they could finish up
worse off than if they had done nothing, they would take a
risk in arranging their affairs to qualify for a government
benefit or obtain a tax advantage (Q22).

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>High Risk / Return</th>
<th>Medium Risk / Return</th>
<th>Low Risk / Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>10%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>20%</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>5</td>
<td>50%</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>6</td>
<td>70%</td>
<td>30%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Government Benefits and Tax Advantages
So long as there was only a small chance they could finish up
worse off than if they had done nothing, they would take a
risk in arranging their affairs to qualify for a government
benefit or obtain a tax advantage (Q22).
<table>
<thead>
<tr>
<th>Question</th>
<th>Jean (42)</th>
<th></th>
<th>John (51)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>Meaning of &quot;Risk&quot;</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q10</td>
<td>Current Risk-Taking</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q12</td>
<td>Confidence In Decisions</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
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<tr>
<td>Q7</td>
<td>Feel After Decisions</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q6</td>
<td>Losses v Gains</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q8</td>
<td>Salary v Commission</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>Job Security v Pay Increase</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q2</td>
<td>Adaptability</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Q9</td>
<td>Risk Taking?</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
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<tr>
<td>Q4</td>
<td>Thrill Investing</td>
<td></td>
<td>✔️</td>
<td></td>
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<tr>
<td>Q18</td>
<td>Face vs Real Value</td>
<td>✔️</td>
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<td>✔️</td>
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<tr>
<td>Q14</td>
<td>Downside Comfort</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
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<tr>
<td>Q19</td>
<td>Risk Changes?</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q21</td>
<td>10-year Returns</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q16</td>
<td>Preferred Portfolio</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Q22</td>
<td>Take a Risk?</td>
<td></td>
<td></td>
<td>✔️</td>
</tr>
</tbody>
</table>
Compared to others, how do you rate your willingness to take financial risks?

1. Extremely low risk taker.
2. Very low risk taker.
3. Low risk taker.
4. **Average risk taker.**
5. High risk taker.
6. Very high risk taker.
7. Extremely high risk taker.

How easily do you adapt when things go wrong financially?

1. Very uneasily.
2. **Somewhat uneasily.**
4. Very easily.

When you think of the word "risk" in a financial context, which of the following words comes to mind first?

1. Danger.
2. **Uncertainty.**
4. Thrill.

Have you ever invested a large sum in a risky investment mainly for the "thrill" of seeing whether it went up or down in value?

1. No.
2. Yes, very rarely.
3. **Yes, somewhat rarely.**
4. Yes, somewhat frequently.
5. Yes, very frequently.

If you had to choose between more job security with a small pay increase and less job security with a big pay increase, which would you pick?

1. Definitely more job security with a small pay increase.
2. Probably more job security with a small pay increase.
3. **Not sure.**
4. Probably less job security with a big pay increase.
5. Definitely less job security with a big pay increase.
### RISK RESPONSES

#### 6. When faced with a major financial decision, are you more concerned about the possible losses or the possible gains?

1. Always the possible losses.  
2. **Usually the possible losses.** ✓  
3. Usually the possible gains.  
4. Always the possible gains.

#### 7. How do you usually feel about your major financial decisions after you make them?

1. Very pessimistic.  
2. **Somewhat pessimistic.** ✓  
4. Very optimistic.

#### 8. Imagine you were in a job where you could choose whether to be paid salary, commission or a mix of both. Which would you pick?

1. All salary.  
3. **Equal mix of salary and commission.** ✓  
5. All commission.

#### 9. What degree of risk have you taken with your financial decisions in the past?

1. Very small.  
2. Small.  
3. **Medium.** ✓  
4. Large.  
5. Very Large.

#### 10. What degree of risk are you currently prepared to take with your financial decisions?

1. Very small.  
2. Small.  
3. **Medium.** ✓  
4. Large.  
5. Very large.
You have an opportunity to make an investment that appears to be almost certain to produce a sizeable return. However, you have no funds to put towards this investment. One option is to borrow money for this purpose. How likely is it that you would do this?

1. Very unlikely.
2. Somewhat unlikely. ✅
3. Somewhat likely.
4. Very likely.

How much confidence do you have in your ability to make good financial decisions?

1. None.
2. A little.
3. A reasonable amount. ✅
4. A great deal.
5. Complete.

Suppose that 5 years ago you bought shares in a highly regarded company. That same year the company experienced a severe decline in sales due to poor management. The price of the shares dropped drastically and you sold at a substantial loss.

The company has been restructured under new management and most experts now expect it to produce better than average returns. Given your bad past experience with this company, would you buy shares now?

1. Definitely not.
2. Probably not.
3. Not sure. ✅
4. Probably.
5. Definitely.

Investments can go up or down in value and experts often say you should be prepared to weather a downturn. By how much could the total value of all your investments go down before you would begin to feel uncomfortable?

1. Any fall in value would make me feel uncomfortable.
2. 10%.
3. 20%. ✅
4. 33%.
5. 50%.
6. More than 50%.
Assume that a long-lost relative dies and leaves you a house which is in poor condition but is located in a suburb that’s becoming popular.

As is, the house would probably sell for $300,000, but if you were to spend about $100,000 on renovations, the selling price would be around $600,000. However, there is some talk of constructing a major highway next to the house, and this would lower its value considerably.

Which of the following options would you take?

1. Sell it as is.
2. Keep it as is, but rent it out. ✓
3. Take out a $100,000 mortgage and do the renovations.

Most investment portfolios have a mix of investments - some of the investments may have high expected returns but with high risk, some may have medium expected returns and medium risk, and some may be low-risk/low-return. (For example, shares and property would be high-risk/high-return whereas cash and term deposits would be low-risk/low-return.)

Which mix of investments do you find most appealing? Would you prefer all low-risk/low-return, all high-risk/high-return, or somewhere in between?

1. Portfolio 1.
2. Portfolio 2.
3. Portfolio 3.
5. Portfolio 5.
7. Portfolio 7.

You are considering placing one-quarter of your investment funds into a single investment. This investment is expected to earn about twice the term deposit rate. However, unlike a term deposit, this investment is not protected against loss of the money invested.

How low would the chance of a loss have to be for you to make the investment?

1. Zero, i.e. no chance of any loss.
2. Very low chance of loss. ✓
4. 50% chance of loss.
With some types of investment, such as cash and term deposits, the value of the investment is fixed. However inflation will cause the purchasing power of this value to decrease.

With other types of investment, such as shares and property, the value is not fixed. It will vary. In the short term it may even fall below the purchase price. However, over the long term, the value of the shares and property should certainly increase by more than the rate of inflation.

With this in mind, which is more important to you - that the value of your investments does not fall or that it retains its purchasing power?

1. Much more important that the value does not fall.
2. Somewhat more important that the value does not fall.
3. Somewhat more important that the value retains its purchasing power.
4. Much more important that the value retains its purchasing power.

In recent years, how have your personal investments changed?

1. Always toward lower risk.
2. Mostly toward lower risk.
3. No changes or changes with no clear direction.
4. Mostly toward higher risk.
5. Always toward higher risk.

When making an investment, return and risk usually go hand-in-hand. Investments which produce above-average returns are usually of above-average risk.

With this in mind, how much of the funds you have available to invest would you be willing to place in investments where both returns and risks are expected to be above average?

1. None.
2. 10%.
3. 20%.
4. 30%.
5. 40%.
6. 50%.
7. 60%.
8. 70%.
9. 80%.
10. 90%.
11. 100%.
Think of the average rate of return you would expect to earn on an investment portfolio over the next ten years. How does this compare with what you think you would earn if you invested the money in term deposits?

1. About the same rate as from term deposits.
2. About one and a half times the rate from term deposits.
3. **About twice the rate from term deposits.**
4. About two and a half times the rate from term deposits.
5. About three times the rate from term deposits.
6. More than three times the rate from term deposits.

People often arrange their financial affairs to qualify for a government benefit or obtain a tax advantage. However a change in legislation can leave them worse off than if they’d done nothing.

With this in mind, would you take a risk in arranging your affairs to qualify for a government benefit or obtain a tax advantage?

1. I would not take a risk if there was any chance I could finish up worse off.
2. **I would take a risk if there was only a small chance I could finish up worse off.**
3. I would take a risk as long as there was more than a 50% chance that I would finish up better off.

Imagine that you are borrowing a large sum of money at some time in the future. It’s not clear which way interest rates are going to move - they might go up, they might go down, no one seems to know. Given the two types of loans below, which are you likely to take?

- A variable interest rate that will rise and fall as the market rate changes.
- A fixed interest rate which is 1% more than the variable rate but which won’t change as the market rate changes.

1. Definitely the variable rate.
2. **Probably the variable rate.**
3. Probably the fixed rate.
4. Definitely the fixed rate.
Insurance policies cover losses resulting from fire, theft and auto accidents. "Deductibles" or "Excess" are the amounts of a loss that the insurance company will not reimburse. The higher the deductibles or excess one chooses, the lower is the cost of the insurance. People select different amounts for their deductibles or excess. What sort of deductibles or excess do you typically take?

1. Very small deductible or excess – highest cost for insurance.
2. Small deductible or excess – high cost for insurance. ✓
3. Large deductible or excess – low cost for insurance.
4. Very large deductible or excess – lowest cost for insurance.

This questionnaire is scored on a scale of 0 to 100. When the scores are graphed they follow the familiar bell-curve of the Normal distribution shown below. The average score is 50. Two-thirds of all scores are within 10 points of the average. Only 1 in 1000 is less than 20 or more than 80.

What do you think your score will be?

JEAN

JOHN
**DEMOGRAPHIC RESPONSES**

1. I am
   - 1. Male.
   - 2. Female.
   - 3. Other.

2. My year of birth is
   - 1. -
   - 1. -

3. The highest education level I attained, or the closest equivalent, is
   - 1. Did not complete high school.
   - 2. Completed high school.
   - 3. Trade or diploma qualification.
   - 4. University degree or higher qualification.

4. Having in mind income from all sources - work, investment, family and government - into which income bracket does your personal before-tax annual income fall?
   - 1. Under $20,000.
   - 2. $20,000 - $49,999.
   - 3. $50,000 - $99,999.
   - 4. $100,000 - $199,999.
   - 5. $200,000 - $499,999.
   - 6. $500,000 - $999,999.
   - 7. $1,000,000 or over.

5. Are you married (or in a de facto relationship)?
   - 1. Yes.
   - 2. No.

6. If "Yes", into which income bracket does your combined before-tax annual income fall?
   - 1. Under $20,000.
   - 2. $20,000 - $49,999.
   - 3. $50,000 - $99,999.
   - 4. $100,000 - $199,999.
   - 5. $200,000 - $499,999.
   - 6. $500,000 - $999,999.
   - 7. $1,000,000 or over.
**DEMOGRAPHIC RESPONSES**

7. How many people in your family, besides yourself, do you fully or partially support financially?

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
<td>1</td>
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<tr>
<td>3.</td>
<td>2</td>
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<td>4.</td>
<td>3</td>
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<td>5.</td>
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<td>6.</td>
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<td>7.</td>
<td>6</td>
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<tr>
<td>8.</td>
<td>7</td>
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<td>9.</td>
<td>8</td>
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<tr>
<td>10.</td>
<td>9</td>
</tr>
<tr>
<td>11.</td>
<td>10</td>
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</tbody>
</table>

8. Think of your net worth as being what you own, including your family home and other personal-use assets, minus what you owe. Into which bracket does the value of your net worth fall? (If you are married or have a de facto partner, include only your share of jointly owned assets less your share of what you owe jointly.)

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Under $10,000.</td>
</tr>
<tr>
<td>2.</td>
<td>$10,000 - $24,999.</td>
</tr>
<tr>
<td>3.</td>
<td>$25,000 - $49,999.</td>
</tr>
<tr>
<td>4.</td>
<td>$50,000 - $99,999.</td>
</tr>
<tr>
<td>5.</td>
<td>$100,000 - $199,999.</td>
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<td>6.</td>
<td>$200,000 - $499,999.</td>
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<td>7.</td>
<td>$500,000 - $999,999.</td>
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<tr>
<td>8.</td>
<td>$1,000,000 - $1,999,999.</td>
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<tr>
<td>9.</td>
<td>$2,000,000 - $4,999,999.</td>
</tr>
<tr>
<td>10.</td>
<td>$5,000,000 to $9,999,999.</td>
</tr>
<tr>
<td>11.</td>
<td>$10,000,000 to $19,999,999.</td>
</tr>
<tr>
<td>12.</td>
<td>$20,000,000 or over.</td>
</tr>
</tbody>
</table>
Jean Sample 25Q AUS

Q14: The total value of all your investments could go down by 20% before you would begin to feel uncomfortable.
Q16: You prefer a portfolio mix of 30% High risk/return, 40% Medium risk/return and 30% Low risk/return (50% Growth Assets).
Q21: Over ten years you would expect average earnings of about twice the rate from term deposits.

John Sample 25Q AUS

Q14: The total value of all your investments could go down by 20% before you would begin to feel uncomfortable.
Q16: You prefer a portfolio mix of 30% High risk/return, 40% Medium risk/return and 30% Low risk/return (50% Growth Assets).
Q21: Over ten years you would expect average earnings of about twice the rate from term deposits.

GROWTH ASSETS COMFORT ZONE

Jean Sample 25Q AUS (42)

John Sample 25Q AUS (51)
## Historical Portfolio Performance for FinaMetrica’s Illustrative Portfolios

### Australia v3.0

<table>
<thead>
<tr>
<th>Worst Fall</th>
<th>-7.0%</th>
<th>-8.1%</th>
<th>-13.3%</th>
<th>-19.1%</th>
<th>-21.0%</th>
<th>-26.1%</th>
<th>-31.3%</th>
<th>-36.0%</th>
<th>-41.5%</th>
<th>-46.3%</th>
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</thead>
<tbody>
<tr>
<td>Best Rise</td>
<td>42.9%</td>
<td>31.7%</td>
<td>32.4%</td>
<td>107.2%</td>
<td>124.7%</td>
<td>136.6%</td>
<td>140.2%</td>
<td>63.0%</td>
<td>127.3%</td>
<td>70.7%</td>
</tr>
<tr>
<td>Multiple of Rate from Term Deposits</td>
<td>1.22</td>
<td>1.29</td>
<td>1.34</td>
<td>1.36</td>
<td>1.40</td>
<td>1.44</td>
<td>1.47</td>
<td>1.52</td>
<td>1.54</td>
<td>1.57</td>
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<tr>
<td>10yrs Real Annualised Return</td>
<td>4.3%</td>
<td>4.8%</td>
<td>5.2%</td>
<td>5.4%</td>
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<td>6.0%</td>
<td>6.3%</td>
<td>6.5%</td>
<td>6.8%</td>
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<tr>
<td>10yrs Real End Value of $1,000</td>
<td>$1,576</td>
<td>$1,643</td>
<td>$1,702</td>
<td>$1,739</td>
<td>$1,798</td>
<td>$1,847</td>
<td>$1,904</td>
<td>$1,963</td>
<td>$2,017</td>
<td>$2,068</td>
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<tr>
<td>0%</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
<td>90%</td>
<td>100%</td>
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</tbody>
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*GROWTH ASSETS*
If you are one of a couple, your partner should also do a separate risk tolerance questionnaire. Few couples have the same risk tolerance, so a 'joint' questionnaire simply won't work. Comparing the individual results will highlight the differences between the couple and ensure these are addressed in financial decisions. Similarly, where you are acting on behalf of someone else, e.g. under a power of attorney or as trustee, your own risk tolerance remains relevant but must be considered in the context of your responsibilities.

Understanding Financial Risk Tolerance

People usually cannot immediately describe their attitudes to risk, because it is not something that they generally think about. This profile helps to draw out those experiences, feelings and attitudes and guide you in your financial decision-making.

Risk tolerance is a personal trait - partly down to genetics and partly down to life experiences. It is a 'stable' part of our personality, which means that over time we tend to stay who we are.

Typically, risk tolerance does decrease slowly with age and may be changed by major life events, good or bad. This means that your risk tolerance should be retested every two or three years and also after any major life event.

Your risk tolerance profile is built using 'psychometrics', which is a combination of psychology and statistics. The science of creating psychometric questionnaires is very complex, which is why it took many years of academic work to create and road-test this questionnaire. But the results are simple - you will get a clear and accurate 'picture' of exactly who you are and where you 'fit' on that scale of very conservative to high risk taker.

Using Your Risk Tolerance Profile with an Advisor

Your risk tolerance profile compares your answers to those given by a very large sample of the adult population. If you use a financial advisor, the report, particularly if your answers differ from other people in your risk group, should be discussed with your financial advisor. Notes of this discussion, including modifications of, or expansions on, particular aspects of your report, should be signed-off by both you and your financial advisor, to ensure you both have the same understanding of your risk tolerance.

Your advisor will use your results to:

- Explain the risks that come with your financial decisions.
- Explore with you trade-offs that you might need to make between risk and return in order to achieve your financial goals.
- Help choose investments that are suitable for you.

While we fully support the profile itself, we cannot endorse or support any specific decision you may make because we are not privy to all the other information that effective financial decision making requires. Think of your risk tolerance profile as the financial services equivalent of your blood pressure reading. While an accurate blood pressure reading does not, by itself, determine a diagnosis or treatment, it does provide critically important information.

For more information about Risk, Risk Tolerance and the FinaMetrica system see the Footnotes.
Risk means different things to different people - danger, uncertainty, opportunity, thrill. In reality, though, there is risk in any situation where there is more than one possible outcome and the outcomes have differing values for you.

We are all aware that, when it comes to taking risks, we each have our own comfort zone. We also know our friends, family members and colleagues often have different comfort zones from our own.

Studies have identified five different categories of risk: financial, physical, social, health and ethical. Most people behave consistently within a category but not necessarily between categories, e.g. a sky-diver is more likely to be a mountain climber but may or may not be a comfortable public speaker or financial risk-taker.

People react differently to risk. Some are habitually inclined to reject it, others to accept it. Risk tolerance is best defined as the extent to which a person chooses to risk experiencing a less favourable outcome in the pursuit of a more favourable outcome. It should be thought of as a continuum, with people ranging from risk-avoiders to risk-seekers. Your risk tolerance is not a particular point on that continuum but rather a range of risk levels with which you would be comfortable.

The whole issue of financial risk is a difficult one. On the one hand, low risk tolerance prevents many people from doing as well as they could financially. On the other, some of life's most unpleasant financial surprises arise because people were exposed to a level of risk beyond their comfort zone, i.e. beyond their risk tolerance. So, while we tend to focus on the dangers of taking too much risk, it is possible to have too little risk, which results in missed opportunities.

Unlike, say, height or weight, there is no unit of measurement for risk tolerance. A person's risk tolerance can only be measured relative to others on an artificial scale (in much the same way as IQ is measured.) Someone may know what risks they are, or are not, prepared to take. But they are unlikely to know how this compares to others.

Studies confirm that people generally do not accurately estimate their own risk tolerance (and, not surprisingly, given the difficulties in any communication about an intangible, that their advisors’ estimates are less accurate than their own.) While the pattern of estimates is scattered, there is a slight overall tendency to under-estimate. A possible explanation for this is that the majority of the population is, in absolute terms, more risk-avoiding than it is risk-seeking. Faced with a choice between a certain profit and an uncertain but probably larger profit, a sizeable majority chooses the certain (but probably smaller) profit. Someone who in absolute terms is slightly risk-averse may not realise that this is typical of the population as a whole.

An additional difficulty is that, even the meaning of "risk" can depend on the situation. When individuals talk about "risk" as they experience it in their personal financial affairs they are not talking about the same thing as investment researchers discussing the "risk" of an investment.

So, consumers (and their financial advisors) face a double challenge,

- firstly, in making an accurate and meaningful assessment of their tolerance of risk as they perceive it, and
- secondly, in expressing this assessment in such a way that the risk involved with their current arrangements, and in the decision alternatives now on offer to them, can be evaluated against their risk tolerance.

All fields of human endeavour use measurement in some form, and each field has its own measuring tools measuring units and measuring disciplines.

Risk tolerance is a psychological trait, as are other aspects of personality. A trait can be defined as any distinguishable, relatively enduring way in which one person varies from another.

Since the early 1900s, psychologists and statisticians have been developing techniques to measure and assess psychological traits. While this development has not been free of controversy, there is now a widely accepted discipline, psychometrics, a blend of psychology and statistics, for psychological testing and assessment. The technical quality of any test can now be measured against internationally agreed psychometric standards. A 'good' test is one that is valid and reliable, i.e. it measures what it purports to measure and it does so consistently.

FinaMetrica’s Risk Profiling system has been developed using the disciplines that apply to psychometric testing and the test itself exceeds international psychometric standards.
2. FinaMetrica’s Risk Tolerance Scoring Scale

As with many other human attributes, risk tolerance is Normally distributed. When graphed they follow its familiar bell-curve.

Because the mathematics of a Normal distribution are well defined, the interpretation of individual scores is greatly simplified. For example, it is possible to state with confidence the proportion of scores that will fall above or below a particular score, and also the proportion that will fall within a particular range of scores.

In order to aid understanding and interpretation, the ‘raw’ scores from the questionnaire have been ‘standardised’ to the FinaMetrica risk tolerance scale which has a Mean of 50 and a Standard Deviation of 10.

![Risk Tolerance Scale](image)

<table>
<thead>
<tr>
<th>Risk Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score Range</td>
<td>Less than 25</td>
<td>25-34</td>
<td>35-44</td>
<td>45-54</td>
<td>55-64</td>
<td>65-74</td>
<td>75 or more</td>
</tr>
<tr>
<td>No in group</td>
<td>1%</td>
<td>6%</td>
<td>24%</td>
<td>38%</td>
<td>24%</td>
<td>6%</td>
<td>1%</td>
</tr>
</tbody>
</table>

To further aid understanding and interpretation, the 0 - 100 scale has been divided into seven segments. The middle segment is the mean ± half a standard deviation, i.e. from 45 to 54. Segments either side are then a standard deviation higher or lower, with the end segments covering the balance of the high and low ‘tails’ of the distribution.

Seven segments are needed to provide sufficient differentiation of those with extremely low or extremely high risk tolerance - one person in 100 in both cases. In IQ terms, this is the equivalent of those with IQs below 75 or above 125.

Back to Footnotes Index

3. FinaMetrica’s Risk Group Descriptions & Differences

A person’s Risk Group description, fine-tuned by any reported differences, provides the basis for comparing the risk involved with their current arrangements, and in any financial decisions being considered, against their risk tolerance.

The group descriptions allow you (and your financial advisors) to build a picture of what is typical for your group. The Risk Groups can be thought of as the equivalent of the standard clothing sizes where Group 4 is Medium, Group 5 is Large, Group 3 is Small, and so on.

The Risk Group descriptions have been developed by analysing how members of that group typically answer the questionnaire. For example, in answering Question 3 more than 80% of Risk Group 4 choose "uncertainty" and so the group description says, "They usually think of risk as uncertainty."

Of course, few people in a group will fit the group description precisely. Where a person gives a different answer, that answer is reported. Usually, someone will give about five different answers and so have five reported differences. The reported differences can be thought of as the equivalent of the tailoring adjustments needed to have one of the standard clothing sizes fit you precisely.

Back to Footnotes Index

4. The Development of the FinaMetrica System

The FinaMetrica system had its beginnings with The Survey of Financial Risk Tolerance (SOFRT) authored by Dr. Michael J. Roszkowski, Associate Professor of Psychology at The American College, Bryn Mawr, PA. Dr. Roszkowski is an acknowledged expert in the relationships between psychological and financial variables, and continues to consult to FinaMetrica. The SOFRT was PC-based and used a 57-question questionnaire which took 30 minutes to complete. FinaMetrica's first development phase was a pre-licensing evaluation of the SOFRT system, completed late 1997, which involved,

- Australianising the language of the SOFRT,
- inventing the seven-segment Risk Tolerance Scale and the Risk Group/Differences reporting system,
- conducting useability and 'norming' trials, and
establishing the Australian database.

The evaluation was successful in confirming Australian validity and reliability. But advisors and clients reported that the SOFRT system was too cumbersome and time-consuming to warrant the effort involved.

However, FinaMetrica could see how to overcome the shortcomings of the SOFRT. The second development phase, completed October 1998, became the creation of a new test and testing system which involved,

- developing questions with more perceived relevance and/or more usefulness in reporting and reduce the number of questions while maintaining psychometric integrity,
- the invention of a new, more precise scoring algorithm which allowed reliability/accuracy to be improved and the number of questions to be reduced from 57 to 25,
- the conducting of three further trials, and
- the establishment of the system on our website.

Psychological testing expertise was provided by Chandler & Macleod Consultants during the first phase and by Drs. Austin Adams and Jim Bright of the Applied Psychology Unit at the University of New South Wales during the second phase.

FinaMetrica has ongoing research relationships with academic institutions in Australia and elsewhere. The qualities of our test are monitored continuously. In 2011/12 our database of ~500,000 completed tests was analysed in detail and the test was fine-tuned. In 2016/17 our test was fine-tuned again as our database grows. The test continues to exceed psychometric standards for tests of this type. During the most recent analysis, psychometric expertise was provided by Dr Myrsini Katsikatsou, Research Fellow at the London School of Economics, Department of Statistics.
JEAN SAMPLE 25Q AUS

Signature  
Date  

Advisor: Albert Hong  
FinaMetrica Test Organisation

Signature  
Date  

JOHN SAMPLE 25Q AUS

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