



Neuroprofiler

**INVESTOR RISK PROFILING**

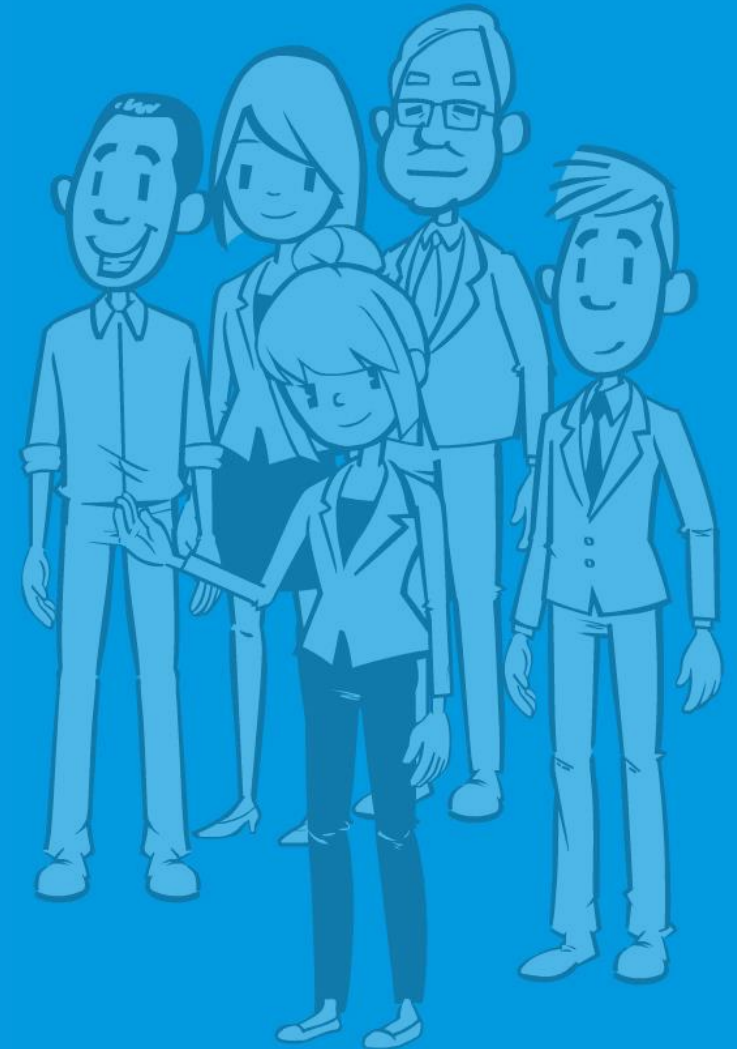
**User Documentation**

Following the 2000s financial crisis, investor suitability assessment became compulsory in most countries.

In the European Union, client suitability assessment is regulated by MiFID.

***“Portfolio managers should have an in-depth knowledge of the investor psychology of their client”***

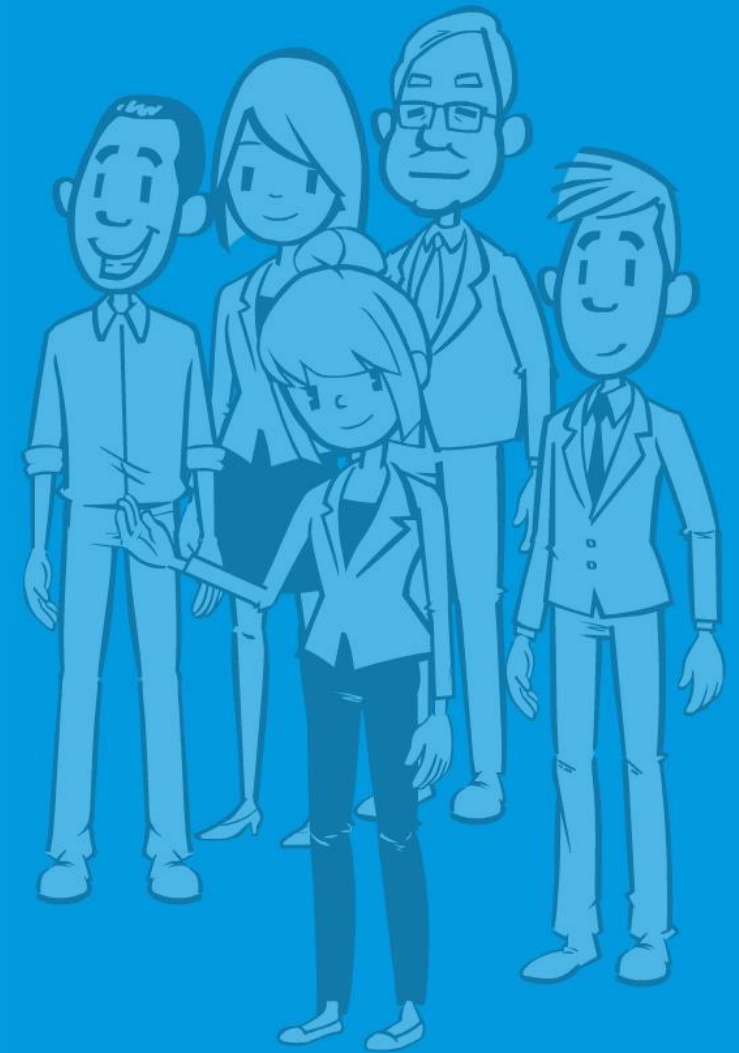
***MiFID 2012***



The objective of this guide is to help you make the most of Neuroprofiler for you and your client.

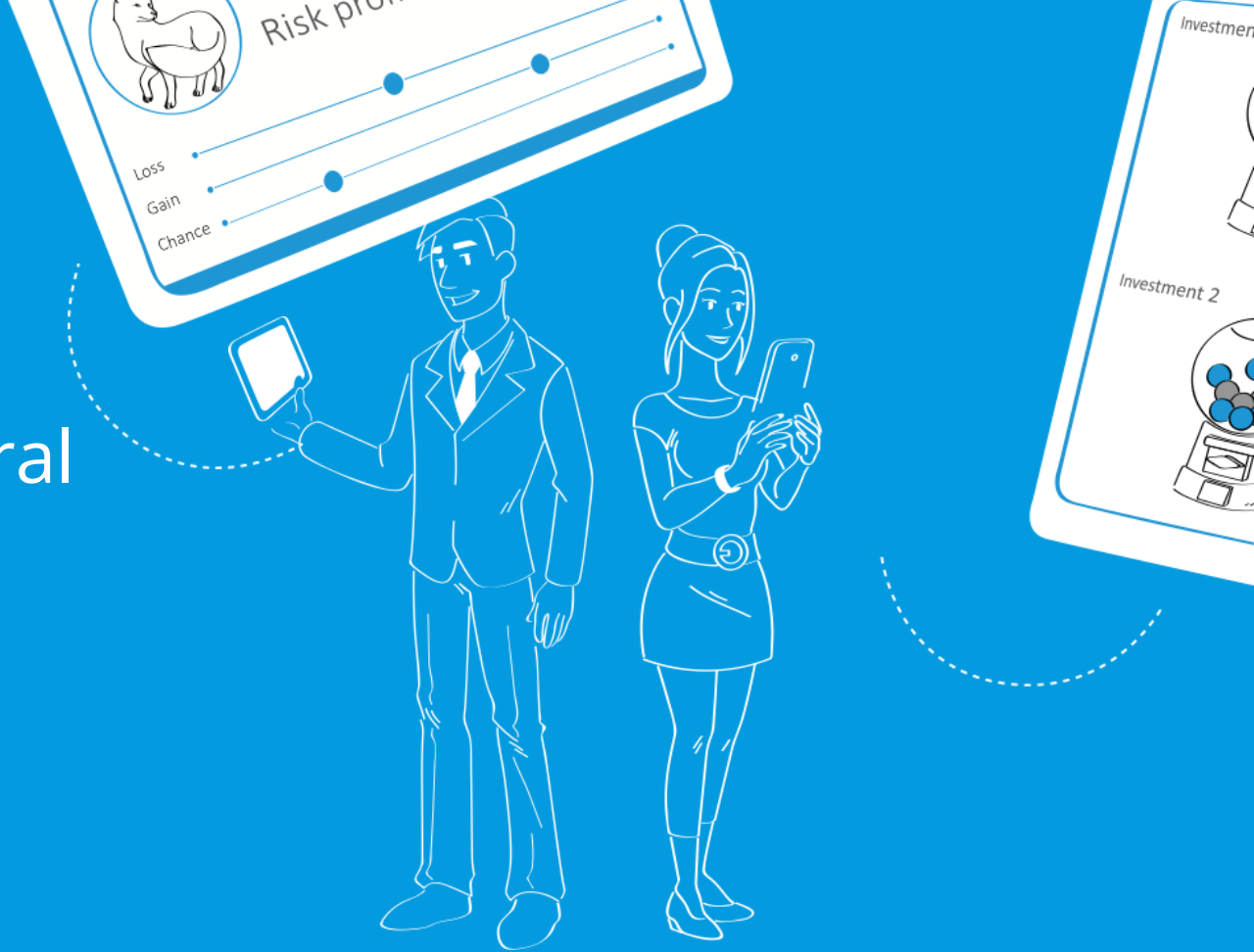
We will learn how to use our SaaS Platform but also how to interpret the results for your clients. You will be introduced to some principles of behavioral finance to better coach and advise your clients.

If you have any questions, please contact us at [contact@neuroprofiler.com](mailto:contact@neuroprofiler.com)



Neuroprofiler addresses this requirement through a behavioral finance game.

- MiFIDII compliant
- User Friendly
- Behavioral Finance and Machine Learning-based



Neuroprofiler



# Starting with Neuroprofiler

# 1. Creating a Test

Neuroprofiler - Risk profiler - Mozilla Firefox

Neuroprofiler - Risk pr... x +

https://kyc.neuroprofiler.com/#/new\_survey/name

Neuroprofiler

en HELP PROFILE LOGOUT

CLIENT DASHBOARD

BUY A TEST

CREATE A TEST

SEND A TEST

MANAGE TESTS

## Click on the "CREATE A TEST" tab

## CREATE A TEST

What is the name of your test ?

[EU / FR] Test

Next step

## Give a name to your Test

# 1.1. Choose a logo

Neuroprofiler - Risk profiler - Mozilla Firefox

Neuroprofiler - Risk pr... x +

https://kyc.neuroprofiler.com/#/new\_survey/logo
















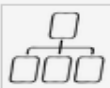









Search

en HELP PROFILE LOGOUT

## CREATE A TEST

Which logo do you want ?

Pick a logo

Next step

Neuroprofiler Copyright 2017

# 1.2. Choose a design

Neuroprofiler - Risk profiler - Mozilla Firefox

Neuroprofiler - Risk pr... x +

https://kyc.neuroprofiler.com/#/new\_survey/design

Search

en HELP PROFILE LOGOUT

CLIENT DASHBOARD

BUY A TEST

CREATE A TEST

SEND A TEST

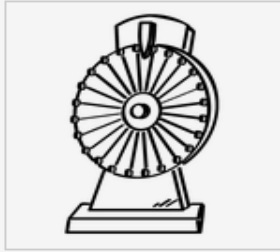
MANAGE TESTS

## CREATE A TEST

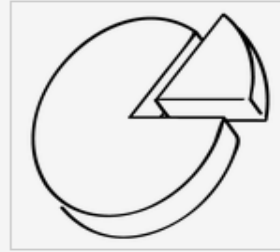
Which design do you prefer ?



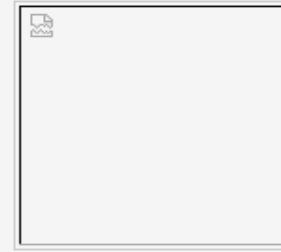
Gumball Machine



Spinner



Chart



Text



Random

Pick a design

Next step





# 1.3. Choose the language and the currency

Neuroprofiler - Risk profiler - Mozilla Firefox

Neuroprofiler - Risk pr... x +

https://kyc.neuroprofiler.com/#/new\_survey/settings

Neuroprofiler

en HELP PROFILE LOGOUT

CLIENT DASHBOARD

BUY A TEST

CREATE A TEST

SEND A TEST




MANAGE TESTS

## CREATE A TEST

Language and currency

Select Language >

Select Currency >

	EUR - €
	DOL - \$
	DOL - \$

Next step

Pick a language

Pick a currency

# 1.4. Choose the questions

Neuroprofiler - Risk profiler - Mozilla Firefox

Neuroprofiler - Risk pr... x +

https://kyc.neuroprofiler.com/#/new\_survey/questions

Search

en HELP PROFILE LOGOUT

CLIENT DASHBOARD

BUY A TEST

CREATE A TEST

SEND A TEST

MANAGE TESTS

## CREATE A TEST

Which questions do you want to ask your client ?

Please check with your local regulations which questions you should ask according to the type of clients and the nature of services you are offering to them. You can visit our Q&A page for further information.

Choose as many as you like

Financial situation

Demographic questions

Investment objectives

Financial Experience

Financial Knowledge

Risk Test

Time Test

Select the questions for your Test

Next step

.....

## 2. Sending a Test

Neuroprofiler - Risk profiler - Mozilla Firefox

Neuroprofiler - Risk pr... x +

https://kyc.neuroprofiler.com/#/send\_test

Neuroprofiler

en HELP PROFILE LOGOUT

CLIENT DASHBOARD

BUY A TEST

CREATE A TEST

SEND A TEST

MANAGE TESTS

### SEND A TEST

[FR / EU] FULL SURVEY (BIS)

[FR/EU] ONLY GAMES [MARKETING]

[FR/EU] FULL TEST AND ALL GAMES

[EN / EU] FULL TEST WITH GAMES

[EN/EU] ONLY GAMES AND KNOWLEDGE

Test 123

Generate my link !

CAREFUL, THIS LINK CAN BE USED ONLY ONCE. ONE OF YOUR TESTS WILL BE CHARGED AS SOON AS THE LINK IS VISITED, KEEP YOUR CLIENT CODE NAME SAFELY TO KEEP TRACK OF HIS RESULTS IN YOUR DASHBOARD

https://kyc.neuroprofiler.com/#/questionnaire/3291/3f8d0241-00bc-4946-8134-f2e5fbddb7ae

1/2 >

Click on the "SEND A TEST" tab

Enter the ID of the Test to send

Click here to copy the URL link

# 3. Changing the profile parameters

CLIENT DASHBOARD

BUY A TEST

CREATE A TEST

SEND A TEST

MANAGE TESTS

Julien

julien.revelle@neuroprofiler.com

billing address

Update fields

current password

password

password confirmation

Change Password

Desactivate account



Couleur principal



Couleur "dark\_win"



Couleur "light\_win"



Couleur "loosing"

Enregistrer

Click on the  
"PROFILE" tab

Change your  
password here

**Warning :** the color  
changes will affect  
all the Tests,  
including those you  
have already sent.

Change colors here

# Recommendations to take the Test

- 1) The Test is adaptive and can be taken on a computer, tablet or smartphone with a good internet connection and an up-to-date browser.
- 2) Make sure your device is connected: Wi-Fi or 3G / 4G.

# **Instructions to give the client in order to take the test in good conditions:**

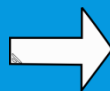
To take the Test under the best conditions, it is recommended to have a 10-20 minute slot in a quiet, distraction-free environment.



# How Does it Work?



OR



PLAY

ADVISE

STORE



The questionnaire is anonymous and can be taken on the device of the Financial Advisor or sent to the client by email

You just have to copy and paste the links created on the SaaS platform on your device or in an email, so that the client can start playing the game.

The test is flexible and can be highly customized by Financial Advisors.

ID 1	<a href="https://www.kyc.neuroprofiler.com/234567">https://www.kyc.neuroprofiler.com/234567</a>
ID 2	<a href="https://www.kyc.neuroprofiler.com/2345tz7">https://www.kyc.neuroprofiler.com/2345tz7</a>
ID 3	<a href="https://www.kyc.neuroprofiler.com/234hj7">https://www.kyc.neuroprofiler.com/234hj7</a>
ID 4	<a href="https://www.kyc.neuroprofiler.com/2kl567">https://www.kyc.neuroprofiler.com/2kl567</a>

**SEND**

The game is adaptive and can be taken on a computer, tablet or smartphone with a good internet connection and an up-to-date browser. Note that the game doesn't work on Internet Explorer.

Make sure your device is connected to a good Wi-Fi or 3G / 4G network.

The game lasts on average 5-10 minutes.



PLAY

**The client will have to go through different sections to finish the Test**

In addition to the tests that will assess the Risk Investor Profile, the full Test includes sections regarding the client's personal and financial situation, his/her financial experience and his/her financial knowledge.

# The different sections of the Test:

1. Demographics
2. Financial Situation
3. Financial Experience
4. Financial Knowledge
5. Investment Objectives
6. Risk Game
7. Time Game
8. Test Report

# 1. Demographics

This part represents the information regarding the client's personal situation (gender, age, education level, marital status, children, professional experience and job category).

# 1. Demographics



**Click on your answer**

GENDER



Male



Female



Do Not Disclose

**Click on this button to get help**



Help

# 1. Demographics

HOW OLD ARE YOU ?

0-17
18-24
25-29
30-39
40-49
50-59
60-69
70-79

**Click on your answer**



**Click on this  
Button to go back**

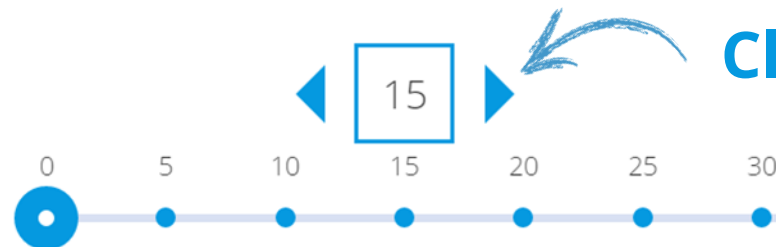


Back

Help

# 1. Demographics

NUMBER OF YEARS OF PROFESSIONAL  
EXPERIENCE



**Click here to increase**

**Or on a dot to  
pick a number**



Back

Help



## 2. Financial Situation

This part represents the information regarding the client's wealth (amount of assets, composition, income and sources, temporary income and sources, financial commitments).

# 2. Financial Situation

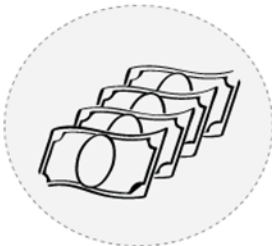
WHAT IS THE MAIN SOURCE, IN PERCENTAGE, OF YOUR TOTAL ASSETS ?



Real Estate

 %

\$0.00



Liquidity

 %

\$0.00



Financial

 %

\$0.00



Please specify

 %

\$0.00

Continue

Write the number directly



Back

Help

# 3. Financial Experience

This part gathers the information about the client's financial experience (experience of the financial sector, investments in complex and non-complex products, portfolio, services used and the related level of satisfaction).

# 3. Financial Experience

HAVE YOU EVER INVESTED IN THESE NON-COMPLEX PRODUCTS ?

**You can pick multiple answers**



Shares on regular market

Bonds or other forms of securitised debt on regular market

Money Market instruments

Shares or units in UCITS

Structured deposits

Other non-complex products

Continue



Back

Help

# 3. Financial Experience

BONDS OR OTHER FORMS OF SECURITISED  
DEBT ON REGULAR MARKET INVESTMENT INFO

Give a rating  
from 1 to 5  
stars

Knowledge



Satisfaction



100

Number of transactions in  
The last two years: 0



< 010,000.00

> 050,000.00

Average value of  
Each trade: < 010,000.00



50

Years of Experience: 0

Continue

Move the  
cursor



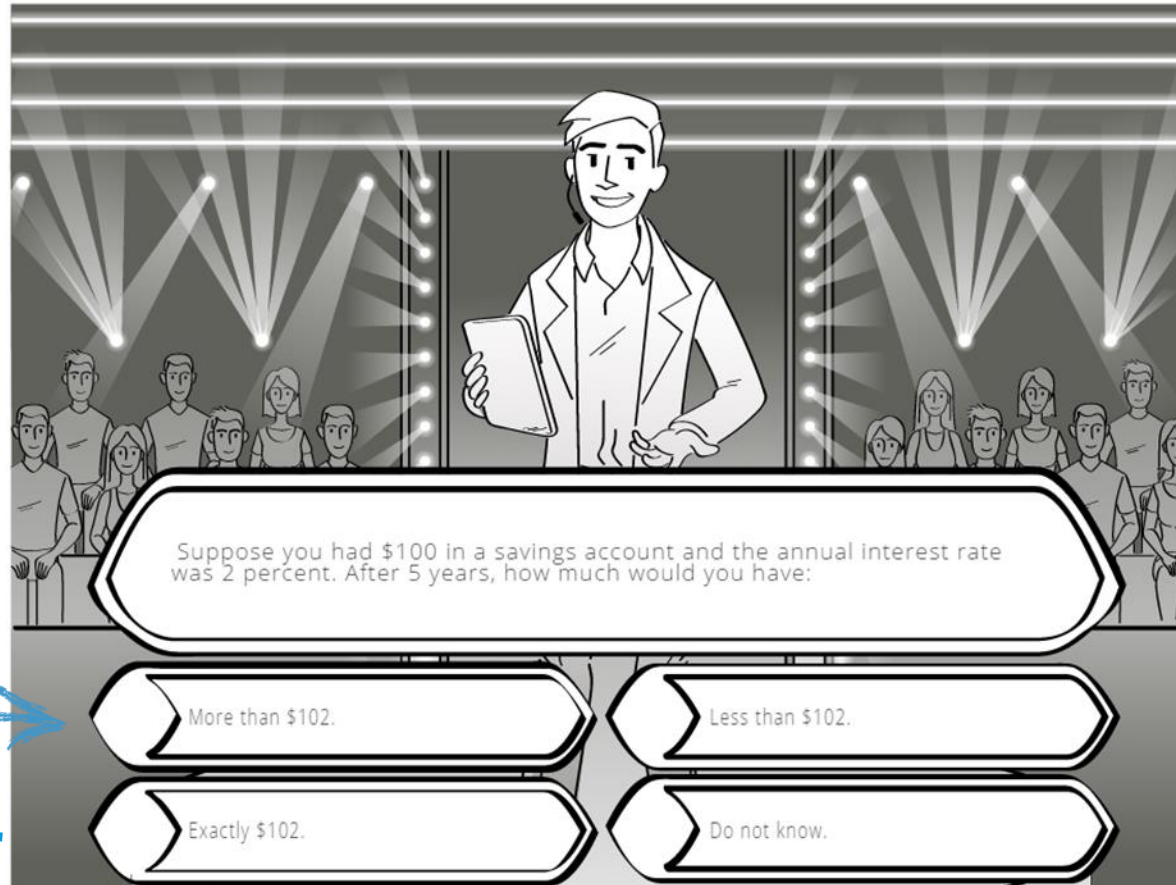
Back

Help

# 4. Financial Knowledge

This part allows a quick diagnosis of the client's level of finance through an adaptive financial knowledge quiz.

# 4. Financial knowledge



Click on your answer

# 5. Investment Objectives

This part gathers the information about the considered investments (amount to invest, ability to bear loss, strategy, perspective, purpose and self-assessment of the risk profile).



# 5. Investment objectives

WHICH PERCENTAGE OF YOUR WEALTH WOULD YOU  
LIKE TO INVEST ?

0 % | \$0.00



**Move the cursor to  
set the percentage**

Continue

Help

# 5. Investment objectives

WHAT IS YOUR INVESTMENT STRATEGY ?



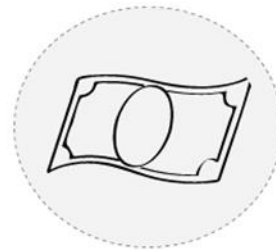
Aggressive Growth



Conservative Growth



Income and Growth



Income



Security and Capital Preservation



**Click on the question mark for more information**

## 6. Risk Game

This part is a game inspired from the Wheel of Fortune. The client is asked to choose to invest in different bets depending on his/her preferences.

The game is based on an adaptive behavioral finance risk tolerance assessment test which assesses optimism and risk-taking in the loss and gain domains through a complex machine-learning algorithm. The Risk Test is based on Prospect Theory, one of the most famous behavioral finance theory developed by the Nobel prize winner Daniel Kahneman to model decision-making under risk.

# 6. Risk Game

## INVESTMENT GAME

Now, we invite you to play an investment game. In this game, you will be asked to choose to invest in different bets. Questions are completely independent. Your past choices must not influence your future choices, since past gains and losses are not accumulated.

There are no right or wrong answers. The primary goal is to gain a better understanding of your risk preferences.



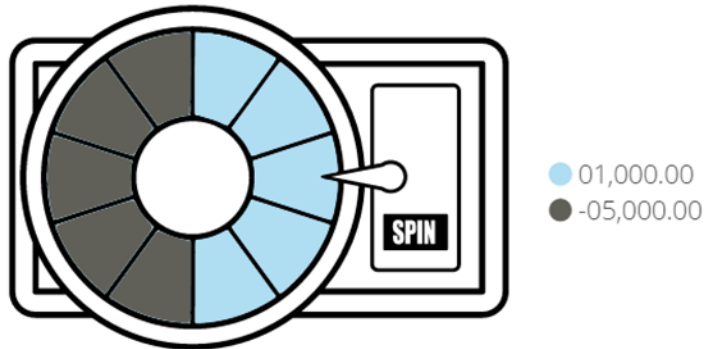
**Click on the  
video to play it**

You are going to play a variation  
of the wheel of fortune.

# 6. Risk Game

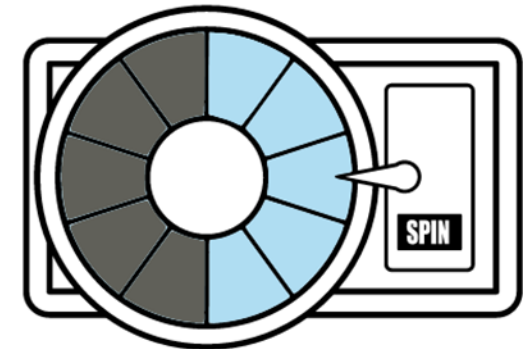
## QUESTION 1

WHICH WHEEL OF FORTUNE WOULD YOU PREFER PLAYING ?



Choice 1

● 040,000.00  
● -020,000.00



Choice 2

**Click on the question mark  
for more information**

# 7. Time game

This game is based on Quasi-Hyperbolic Time Discounting Theory which was especially promoted by Pr. Laibson (Behavioral Economics, Harvard University).

Clients are asked to choose between an immediate gain or a larger future gain.

# 7. Time game

## INVESTMENT GAME

Now, we invite you to play an investment game. In this game, you will be asked to choose to invest in different bets. Questions are completely independent. Your past choices must not influence your future choices, since past gains and losses are not accumulated.

There are no right or wrong answers. The primary goal is to gain a better understanding of your risk preferences.

Continue

# 7. Time game

## QUESTION 5

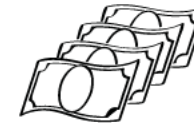
WHICH CHOICE WOULD YOU MAKE ?



Now

Get 2,500 € Now

Investment 1



In 7 days

Get 3,000 € In 7 days

Investment 2



# 8. Test Report

This part presents the results of the Test, including a detailed analysis of the client's profile, responses and response times of all questions from the Test which has been created by the Advisor and completed by the Client.

In some cases, it can also include a risk and inconsistency index.

# 8. Test Report

## RISK TEST RESULTS

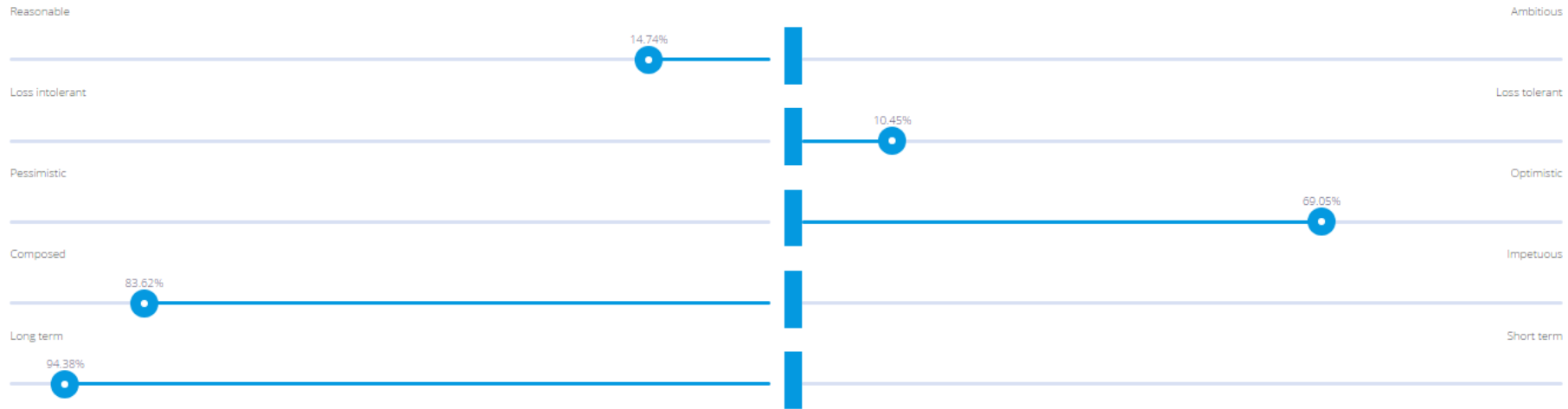


With discernment and optimism, you are especially tolerant to loss and do not take foolish risks to maximize your profits.

Inconsistency warnings : 😊

RISK PROFILE: CONSERVATIVE

**Risk Tolerance =  
Ambition + Loss Tolerance + Optimism**



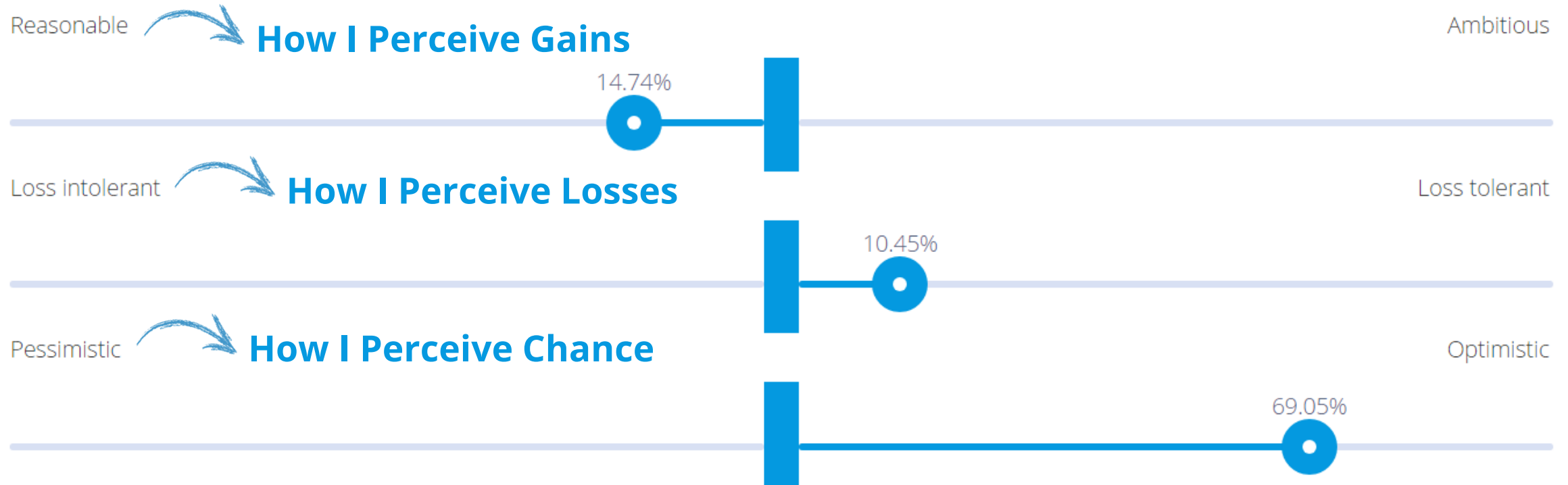
How well does this analysis reflect your investor profile ? ★★★★★

[Comment](#) [Print](#)

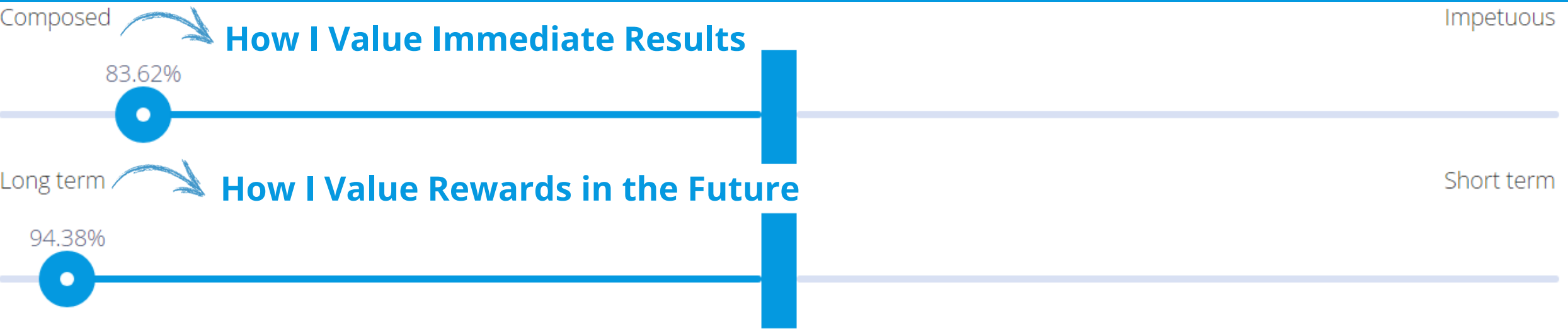
[Disclaimer](#)

Evaluate the result

# 8. Test Report



# 8. Test Report



## 8. Test Report

Inconsistency warnings might appear if we detect unusual behaviors

**Risk Test Warning:** In the last questions of the risk test, we control whether there is an inconsistency in the answers of the client, in comparison to previous questions.

**Risk Test Time Warning:** We control whether the client answers too quickly (less than 2 seconds) or too slowly (more than 52 seconds) to each question.

**Age Warning:** if the client is more than 80 years old and very dynamic in ONE of the following situations – investment game, investment strategy or risk auto-evaluation

**Investment horizon Warning:** if it's less than 3 years and the client is very dynamic in ONE of the following situations – investment game, investment strategy or risk auto-evaluation

## 8. Test Report

**Investment amount Warning:** if it's more than 50% of the total amount of assets and the client is very dynamic in ONE of the following situations – investment game, investment strategy or risk auto-evaluation

**Experience Warning:** if the client has less than 3 years of financial experience and a very dynamic profile in ONE of the following situations – investment game, investment strategy or risk auto-evaluation

**Knowledge Warning:** if the client has the lowest level in financial knowledge and a very dynamic profile in ONE of the following situations – investment game, investment strategy or risk auto-evaluation

**Loss aversion Warning:** if the client is not ready to loose more than 10% of their investment and has a very dynamic profile in ONE of the following situations – investment game, investment strategy or risk auto-evaluation

## 8. Test Report

**Keep the game report simple and clear:**

Do not show the inconsistency warnings to your client unless he asks for it.

## 8. Test Report

Ambition/Reasonable = How I Perceive Gains

Loss Tolerance/Loss Intolerant = How I Perceive Losses

Optimism/Pessimism = How I Perceive Chance

---

**Risk Tolerance**



## 8. Test Report

Impulsivity = How I Value Immediate Rewards

Long/Short-Term horizon= How I Value Rewards in the  
Future

---

**Patience**



# Introduction to Behavioral Finance



# LOSS AVERSION AND AMBITION

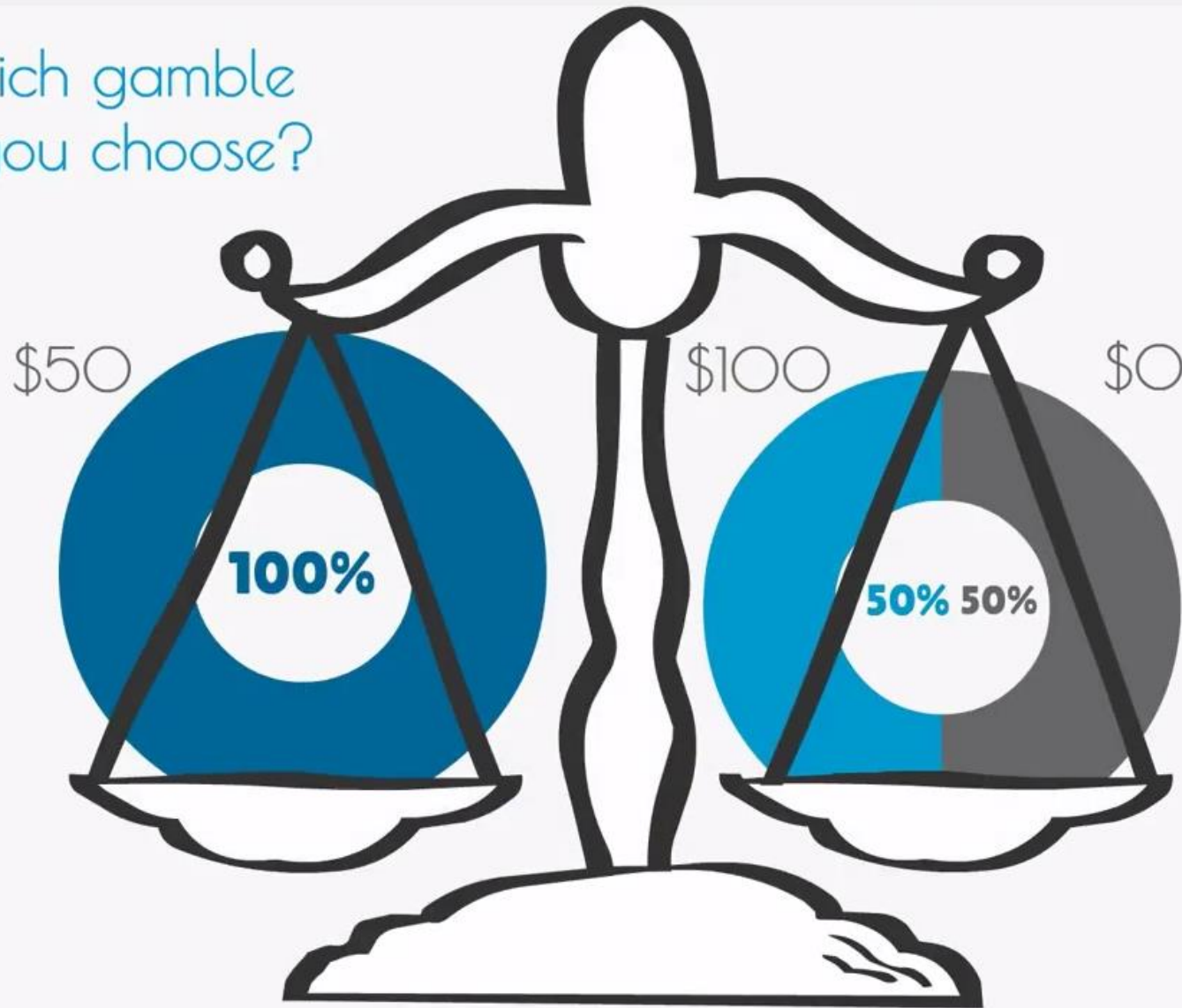
Behavioral Finance uses psychological insights to inform financial theory. Behavioral Finance holds that we do not behave rationally.

Our investments are deeply biased by emotions, social pressure, past experiences...

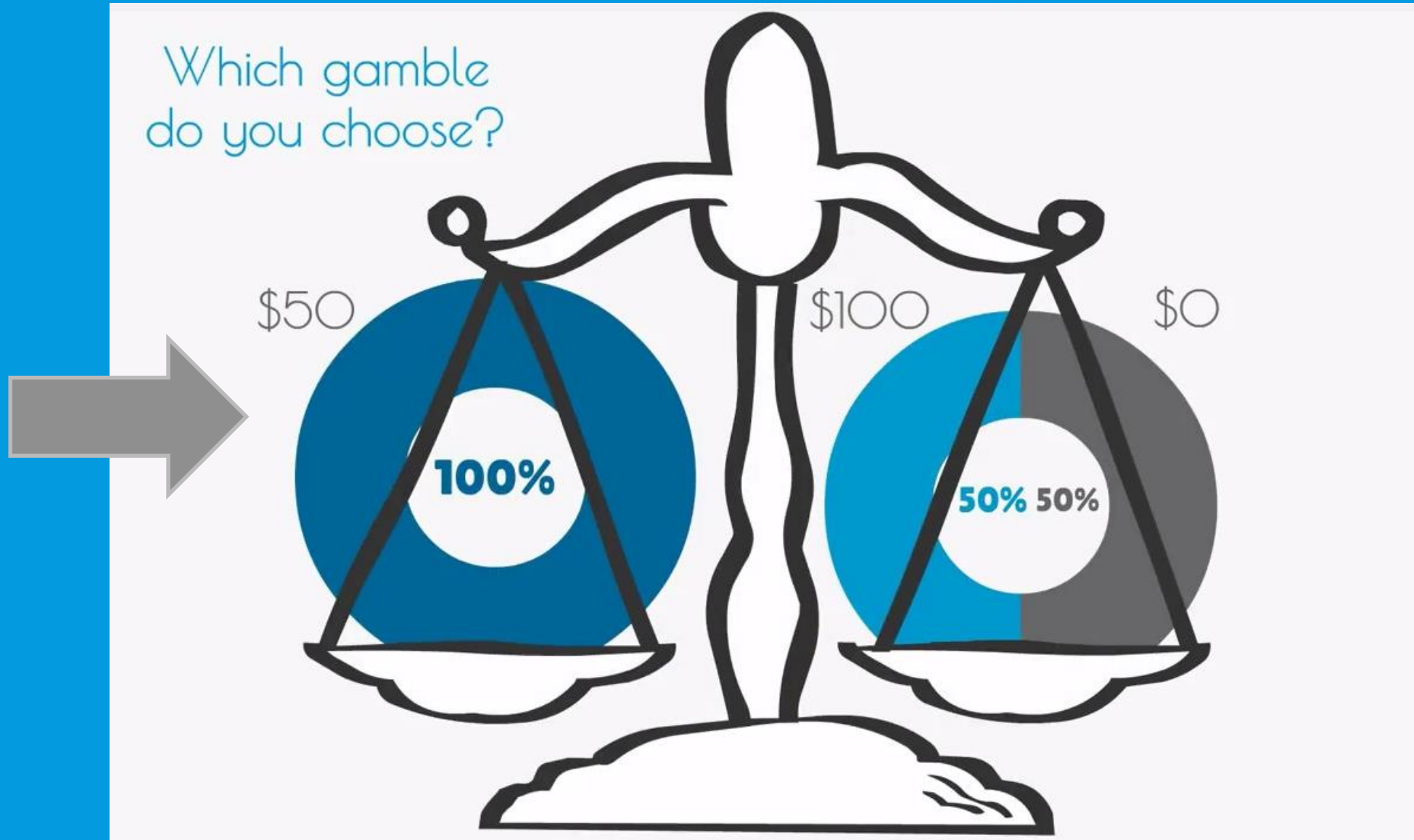
The following slides aim to help you better understand how these psychological factors affect your client's financial decision and help them make better decisions.

Let's start with some examples...

Which gamble  
do you choose?



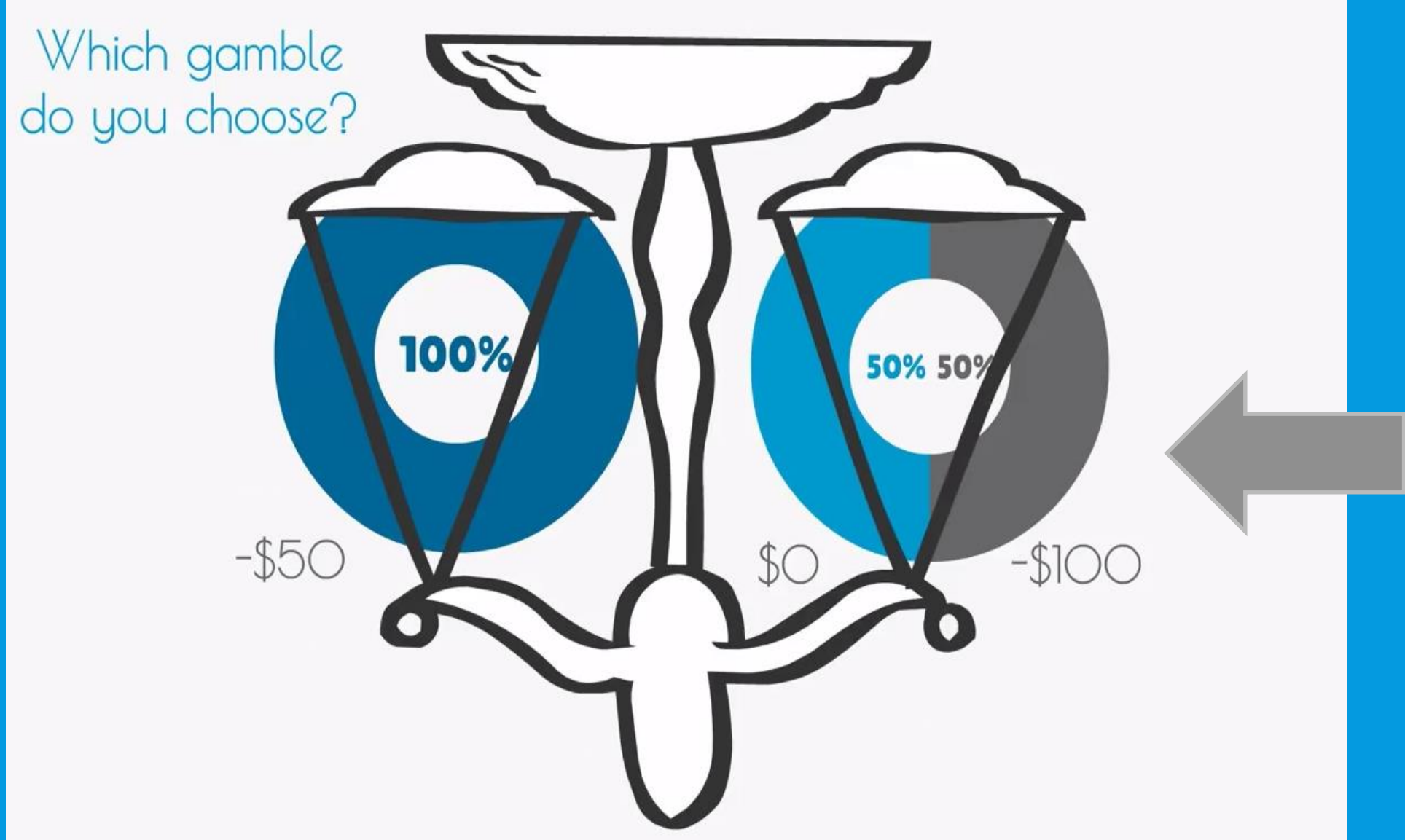
Most people are reasonable and choose the safe option.



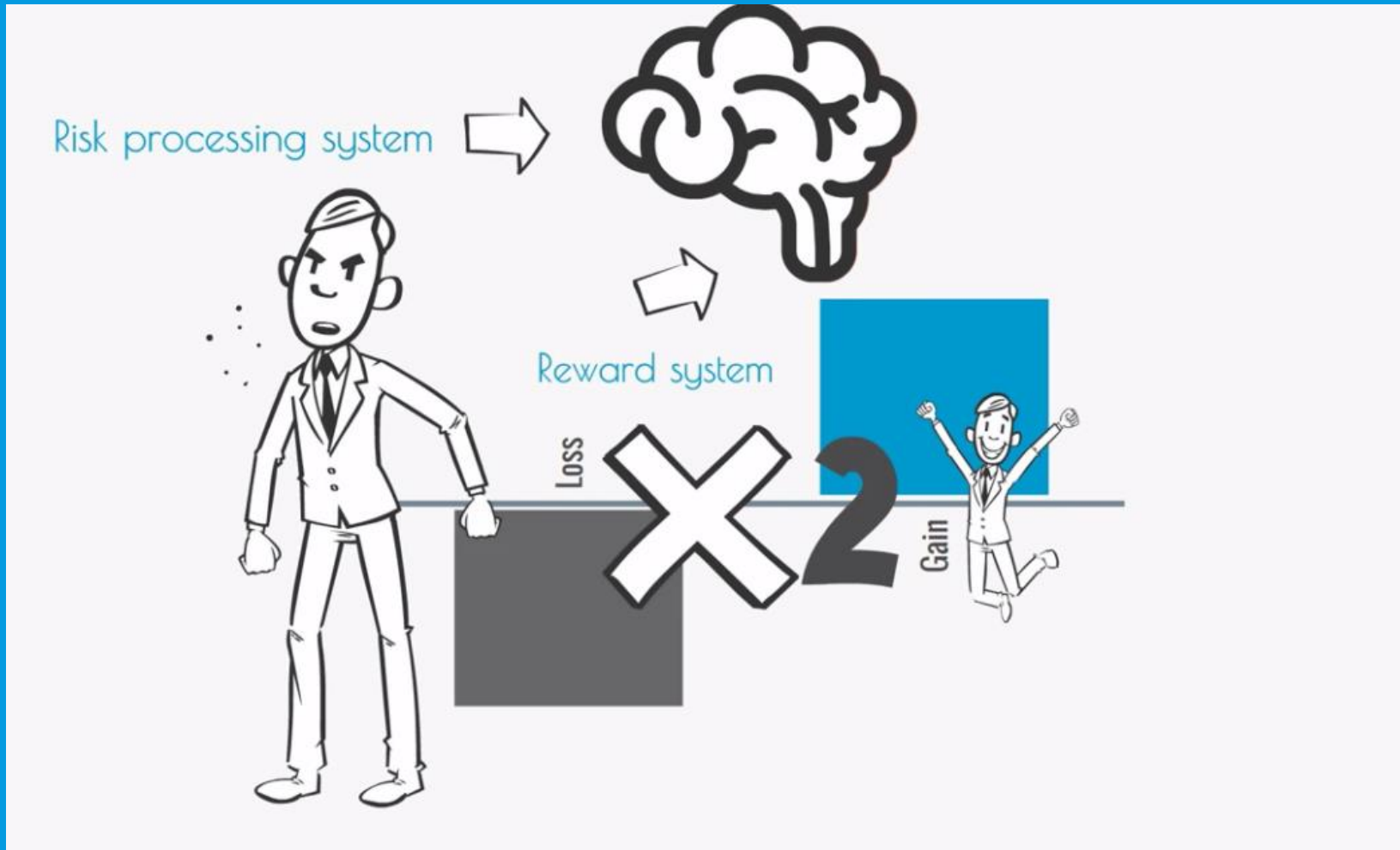
Which gamble  
do you choose?



In this case, most people prefer to take risk to avoid loosing money.



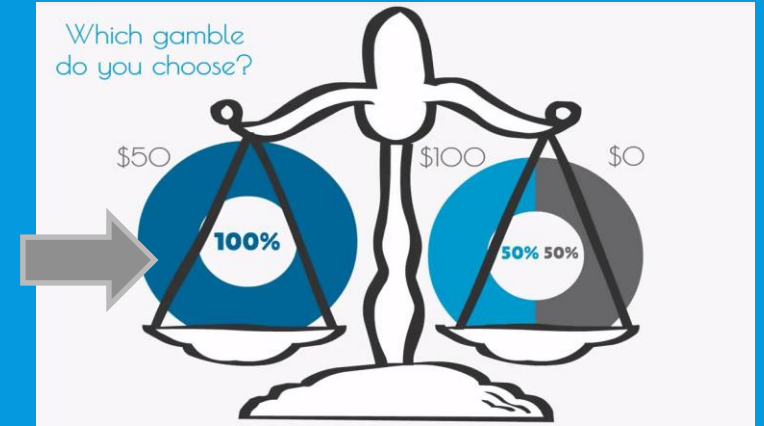




On average, we are twice as sensitive to losses than to gains.

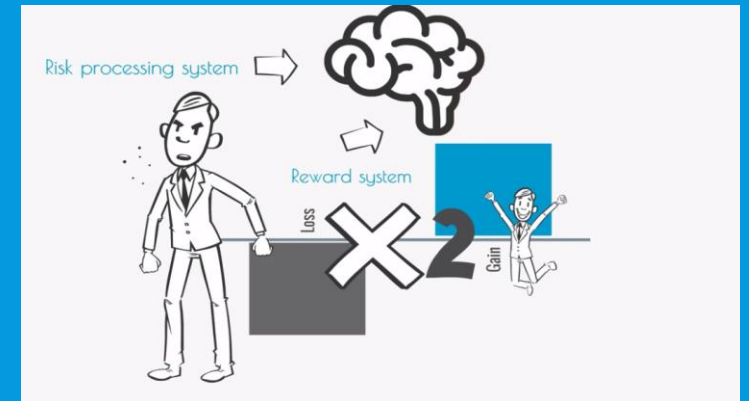
**Most people are reasonable  
(not ambitious).**

They do not take risk to win more.  
They undervalue gains.



**Most people are loss averse.**

They take risk to lose less.  
They overvalue losses.  
They are twice as sensitive to losses  
than gains.





# OPTIMISM

# Which pills do you prefer?

**Pill A will save you with 1% chance**

**Pill B will never save you**

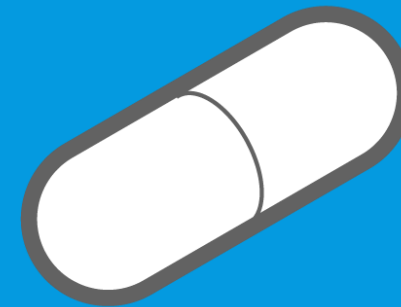


# Which pills do you prefer?

**Pill A will save you with 1% chance**



**Pill B will never save you**



# Which pills do you prefer?

**Pill A will save you with 1% chance**



**Pill B will never save you**

**Pill A will save you with 87% chance**

**Pill B will save you with 88% chance**



# Which pills do you prefer?

**Pill A will save you with 1% chance**

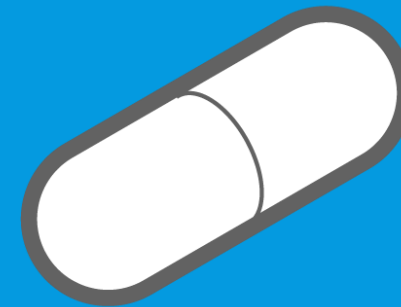
**>**

**Pill B will never save you**

**Pill A will save you with 87% chance**

**~**

**Pill B will save you with 88% chance**



# Which pills do you prefer?

**Pill A will save you with 1% chance**

**>**

**Pill B will never save you**

**Pill A will save you with 87% chance**

**~**

**Pill B will save you with 88% chance**

**Pill A will save you with 99% chance**

**Pill B will always save you**





# Which pills do you prefer?

**Pill A will save you with 1% chance**

**>**

**Pill B will never save you**

**Pill A will save you with 87% chance**

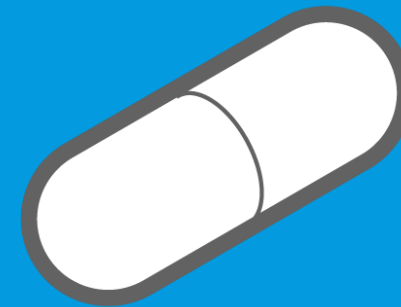
**~**

**Pill B will save you with 88% chance**

**Pill A will save you with 99% chance**

**<**

**Pill B will always save you**



**We do not perceive probabilities as they are.**

**We overweight the large probabilities  
(optimism)**

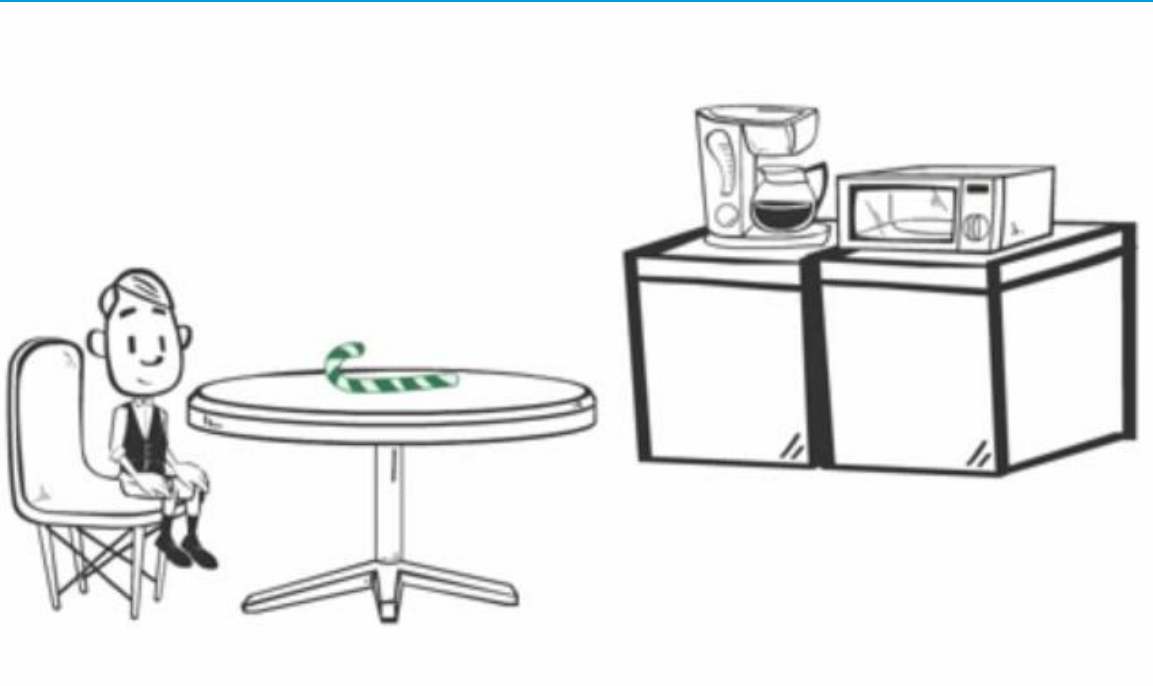
**We underweight the small probabilities  
(pessimism).**



# IMPULSIVITY AND LONG/SHORT- TERM HORIZON

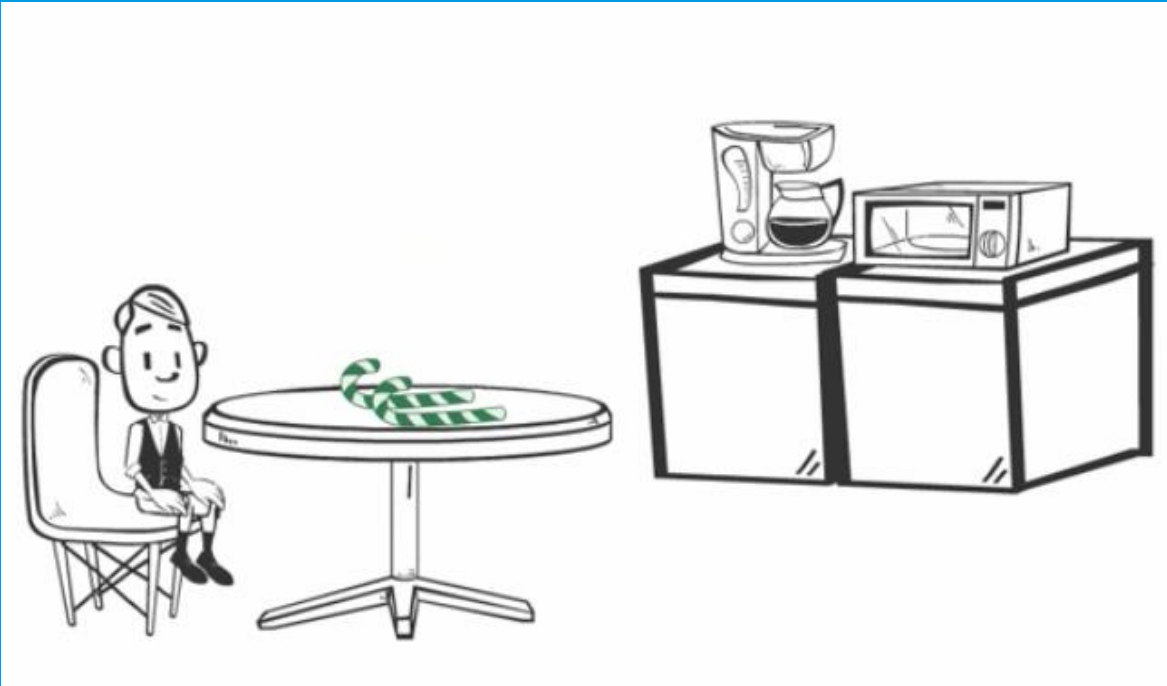
# We prefer to have a reward now rather than in the future (present bias)

Now

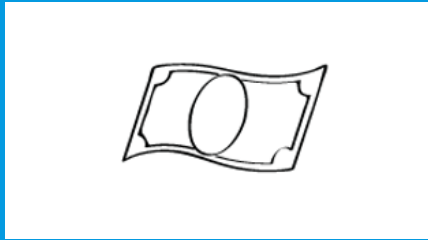


OR

In 30min

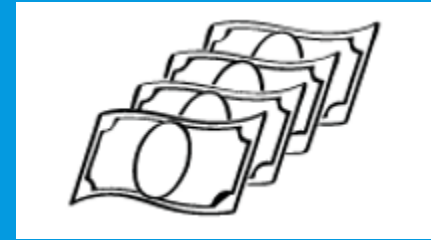


Many of us prefer to lose money in order to be rewarded  
in the short-term rather than in the long-term



Get \$1000 in 1 month

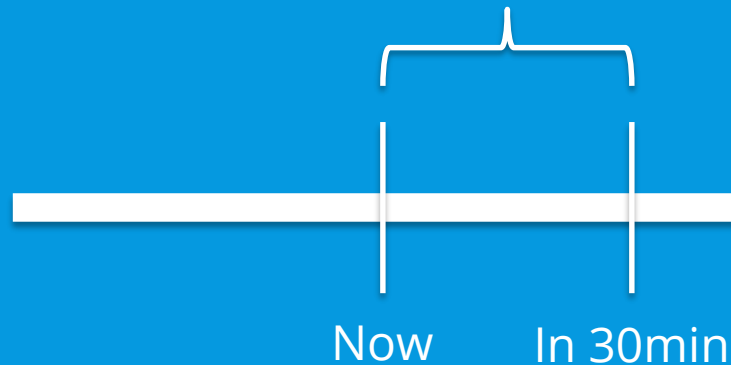
OR



Get \$1200 in 1 year

**Most people are impulsive  
(not composed).**

They prefer to be rewarded  
now rather than in 30  
minutes.



**Most people have a short-  
term horizon.**

They prefer to be rewarded  
in 1 month rather than in 1  
year.



# Examples of other Cognitive Biases

BIAS	DESCRIPTION
<b>Home Bias</b>	Preference for domestic equities even when it is not profitable
<b>Disposition effect</b>	Tendency to keep losing assets and sell winning assets.
<b>Herding effect</b>	Imitation of other's behaviors. This can lead to market bubbles and overreaction to market changes.
<b>Over-confidence</b>	Overestimation of one's skills and judgments.
<b>Availability heuristics</b>	Overestimation of the likelihood of familiar, recent or emotionally charged events.
<b>Denomination effect</b>	The tendency to spend more money when it is denominated in small amounts rather than large amounts.
<b>Gambler's fallacy</b>	The tendency to think that future probabilities are altered by past events, when in reality they are unchanged. The fallacy arises from an erroneous conceptualization of the law of large numbers. For example, "I've flipped heads with this coin five times consecutively, so the chance of tails coming out on the sixth flip is much greater than heads."



# Neuroprofiler

## **Investor profiling game**

In case of specific problems,  
please email:  
[contact@neuroprofiler.com](mailto:contact@neuroprofiler.com)

