

## Neuroscience of financial decision making

### Content and structure

#### Introduction to Neuroscience of Financial decision-making

Although for most of the history economic models of asset pricing relied on the assumption of investor rationality, it is quite clear now that even in the aggregate, human investors do not fit the profile of *homo economicus*. The reason why the stock market is not efficient is partly due to the computational limits of investors' brains. Disciplines such as behavioral finance and behavioral economics have shifted the attention towards the individual decision-maker and brought a revolution in our understanding of how and why people decide. Yet, the true revolution is happening now, with the developments in Neuroeconomics and Neurofinance, which enable us to glimpse into the brain and predict the decision seconds before the agent acts. In the first part of the lecture, we will confront Homo Economicus with Homo Sapiens by contrasting the basic assumptions and approaches towards studying the financial decision-maker from the point of view of economics and neuroscience. We will also abolish some of the neuromyths common in business.

#### Reward & Risk in the brain

The first surprising fact about the brain is that we use the same reward circuit for computing the subjective value of all biologically important things in life: from sex and food to monetary outcomes of an investment prospect. Hence the observation of normative "irrational biases" often derives not from poor cognitive skills but from the *biologically rational* adaptation to making quick decisions under uncertainty. Second, the neuroscientific discoveries of how the brain encodes risk and ambiguity demonstrate that it is, in fact, a process dependent on individual preferences and experience, brain structure and even availability of dopamine receptors.

#### Emotions and emotional biases

In this third part of the talk, we will delve into the controversial role of emotions in financial decision-making. After two decades of neuroimaging studies, we can now clearly say that dualism – so pervasive in economic thinking – does not exist in the brain. There is no "rational" and "emotional" brain. In fact, risky decisions about monetary outcomes rely heavily on what could be defined as mostly *affective* structures of the brain. Some studies demonstrate that the role of emotions is, in fact, to guide financial decision-making through *interoception*, a process that can be likened to "gut feelings" or "intuition".

### Who should attend?

Financial analysts  
Asset managers  
Portfolio managers  
IT specialists  
Law and compliance experts  
Financial market operators  
Wealth managers  
Client advisors

### Language

English

### Date

02.12.2021

### Time

13:00 – 17:00

### Venue

Presence seminar at FER, rue de Saint-Jean 98, 1201 Genève, with the option to participate online via zoom.

### Seminar fees

SFAA members' attendance is free of charge.  
For non SFAA members the fee is CHF 480 including documentation.

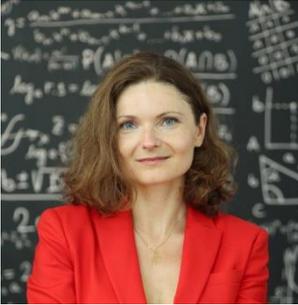
### Registration

Online on [www.sfaa.ch/fr/SFAA\\_agenda.asp](http://www.sfaa.ch/fr/SFAA_agenda.asp)

### Information

For more information please contact us at:  
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## Speakers



### **Ewa Lombard**

Dr Ewa Lombard studied economics and management at Bocconi University and University of St. Gallen, worked as project manager and research scientist at Philips Healthcare in the Netherlands, and went on to pursue her PhD in neuroscience of motivation and learning at Université de Genève. She then joined the lab of Neurofinance at Geneva Finance Research Institute and went on to study ethical decision-making in wealth managers with Prof. Rajna Gibson.

She teaches “Psychology of Finance” in the Geneva Wealth Management Master’s program (UniGE) and, as Assistant Professor, is a member of the chair in Social and Sustainable Finance at Montpellier Business School. Her research focuses on sustainable decision-making: ethics in finance, motivation for green investment, pro-environmental behaviors, and collective intelligence for SDGs.