Economic narratives, behavioural biases in corporate management and stock market volatility in Poland: An agent-based modelling approach

The world at the threshold of the third decade of the 21st century has become increasingly complex. The great development of the so-called cyber society combined with the increasingly intensive influence of social media and artificial intelligence (AI) on various areas of life has made it increasingly difficult to describe all this using traditional economic theories. That is why one of the creators of behavioral economics and at the same time a Nobel Prize winner in economics, Robert Shiller, postulates that in economics we should be more open to so-called economic narratives, which can sometimes have a greater impact on the economy than actual economic data. Narrative economics combined with behavioral economics can describe the contemporary world of financial markets better than neoclassical economics. This is particularly important in the context of decision-making by managers in listed companies, who are increasingly susceptible to psychological errors in managing their enterprises due to the aforementioned influence of specific economic narratives.

Therefore, the first objective of our research project will be to investigate whether managers of companies listed on the Warsaw Stock Exchange are susceptible to selected behavioral errors described by psychologists and how they can affect selected managerial practices in the area of risk management and investment policy. The second objective of this project will be to analyze specific economic narratives related to the stock market in Poland. The final objective of our project will be to build a so-called agent-based model (ABM), which is a new form of simulation in social sciences. This model will test the interrelationships between behavioral errors made by managers, economic narratives and the volatility of the stock market in Poland at the aggregated level.

In conclusion, it is worth emphasizing both the epistemological and social benefits of implementing this research project. First, narrative analysis in economics is a new and very under-researched area of research. Second, an innovative set of methodological tools in the form of agent-based modeling can help us better understand how managers make economic decisions in an increasingly complex world and how this shapes the capital market at the aggregated level. Finally, this project will be implemented under a cooperation agreement between the Warsaw School of Economics and the Faculty of Psychology of the University of Warsaw. In addition, our project will also be implemented in international cooperation with the Santa Clara University in California (USA) and the Sorbonne Economics Centre in France. All these factors speak not only for the scientific quality of the research project, but also for the practical significance resulting from its implementation.