Assegno di Ricerca

Text-Based Measures of Cyber Risk

ABSTRACT

The research assistantship is included in the activity of the PNRR plan PE07, Spoke 8: "Risk Management for Future Cyber-Physical Ecosystems". In particular, the research assistant will contribute to WP1 of the project, devoted to: "Continuous Risk Management Indicators and Models". The goal of the project is to contribute to produce an "attention index" of cyber risk and to evaluate the impact on the financial markets for equity and debt of corporate institutions. The expected outcome will consist of:

1) a technical document of review an analysis of text-based measures applied to the so-called "emerging risks", namely climate change, geopolitical and cyber risks and the technical possibilities provided by Large Language Models
2) the construction of a cyber-risk index based on a feed of news;
3) the transformation of the index into a monetary measure for hedging cyber risk on the financial market;
4) the analysis of the relationship with similar measures of other emerging risks, particularly the geopolitical one;

ACTIVITY PLAN

The activity plan will consist of:

1) Review of literature and writing of the Technical Document (2 months)
2) Construction of the cyber-risk measure (6 months)
3) Paper on the statistical features of the risk measure (4 months)