How Elementary is (Naive) Diversification?

Ola Mahmoud
Postdoctoral Researcher and Lecturer, Faculty of Mathematics and Statistics, University of St. Gallen
Affiliated Researcher, Center for Risk Management Research, Department of Economics, University of California, Berkeley

Abstract

Diversification is a fundamental concept in a wide variety of fields, such as financial economics, decision theory, sociology, consumer theory, economic growth, genetics and evolution. From a broad perspective, it conveys the idea of introducing variety to a set of objects. Today, there is general consensus that some form of diversification is beneficial in a wide array of contexts. However, the meaning and definition of diversification is context-dependent and there is no consensus on a widely accepted, mathematically concise and economically sound notion of diversification. Indeed, there is an ongoing debate about what the "best" level of diversification should be. There is also a recent trend of evaluating certain diversifying heuristics as being "anomalous" and "irrational" behavior. In this talk, I shall approach the notion of diversification from a foundational perspective by asking how elementary it really is. I take the view that the diversification choice heuristic is an evolutionary cognitive adaptation that is selectively advantageous under many economic and financial circumstances. I will start by formalising the „naive diversification" heuristic, a widely applied paradigm which states that an economic agent allocates equal decision weights to given choice alternatives independent of their individual characteristics. I will then attempt to dig deeper into the roots of this paradigm; first, through an experimental study on children that looks into whether they would diversify in a sequence of gambles aimed at replicating typical portfolio choice scenarios; then by formulating an evolutionary theory of diversification.