

Clustering pension participants based on risk aversion seems sufficient for collective investment

“It is possible to achieve an almost optimal level of welfare for all participants with just a few clusters”

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What is the focus of the paper?

This study focuses on developing optimal collective investment strategies that take into account the diversity of risk preferences (what level of risk one is willing to take) and risk capacities (what level of risk one is able to bear) among pension participants. The goal is to find a method that brings each pension participant as close as possible to their individual optimum within a collective strategy strategy – or with a small menu of possible investment strategies.

What are the key findings?

Using recent research techniques, algorithms were built to find optimal ‘compromises’ among hundreds of pension participants. The study demonstrates that it is possible to achieve an almost optimal level of welfare for all participants with just a few clusters (e.g., four or five group divisions). The optimal clustering is primarily related to differences in risk aversion rather than income differences. As a result, the solutions are fairly robust.

What are the implications?

The collective investment issue under study has garnered significant attention in the context of the recent national pension reform. The collective investment strategies developed in this paper provide an efficient balance between individual needs and the group optimum. This eliminates the need for full personalization of the investment strategy, thereby reducing management costs and complexity.

Want to know more? Read the paper:

Welfare effects of collective investment for heterogeneous agents