Executive Summary

Purpose

Starting in 2021, the University of Zurich is offering a minor in sustainable finance at the master's level. This shows that there is a growing awareness in this topic in the academy. The aim of this thesis is to design a course that teaches sustainable finance in a practical way. Today, the University of Zurich already offers interactive courses on various topics, such as the *Advanced Portfolio Management Game* for asset management. The original idea was to add a sustainable finance component to the previously mentioned game. But since the game is already complex enough, a new one was developed for this thesis, based on the *Advanced Portfolio Management Game*.

Methods

First, financial and sustainability data were obtained from Refinitiv Datastream of companies in Switzerland, Europe, the US and emerging markets for the period 2009 - 2021. Of the nearly 3,200 companies analyzed, only 244 had sufficient data. In most cases, the problem was the missing history of the sustainability data. For the simulation, however, these 244 companies are sufficient and well distributed across regions and sectors.

In a second step, the *Advanced Portfolio Management Game* was examined in more detail. The individual components were analyzed and divided into modules. These modules served as the basis for this work and were partially adapted or discarded. Some were also created from scratch. For these new modules, the challenge was to determine which sustainable finance topics would be suitable for this simulation. These adaptations resulted in three types of modules: Information modules, which contain general data and information, decision modules, which require decisions from the participants, and output modules, which calculate parameters for the evaluation.

Results

The result is a modular simulation in which the participants have to found a bank and launch a fund with a sustainable investment strategy. In addition, strategic decisions must be made that also include sustainability aspects. A game master can define the input parameters at the beginning of each simulation. This ensures that each game is unique. To evaluate the winner at the end of the simulation, several parameters are available that summarize the performance of the participants.

Besides the concept, a fully functional prototype was created. It consists of several Excel files, R-codes and instructions for the game master and the participants. The modular structure of the simulation allows it to be extended or simplified as needed. The prototype could be developed into a web-based application and offered as a course for students.

Conclusions

The goal of creating a concept for an interactive course on sustainable finance was achieved and extended with a prototype. The challenges were also successfully met. Some topics have already been identified for further development, such as playing with multiple funds, hedging components or new asset classes. The next step would be to test the simulation and validate the content of each module. If the tests show that the concept is usable and suitable for teaching, the coding can start.