Basic Info

- **Author:** Lanny Zrill
- **Operating System:** Windows 10 (64-bit)
- **Software:** MATLAB R2020b

Replication Files

Results_Master.m

When executed, this script reproduces all of the results in the paper. For the most part, the content and function of the remaining replication files are obvious, e.g. Table_1.m reproduces the results in Table 1. See below for a brief description of the remaining files and folders.

DA_CRRA.m

Takes as inputs a portfolio of two contingent assets (x,y), and parameters $\{\beta, \rho\}$ and computes the value of the Disappointment Aversion model with equally likely states and CRRA utility-for-gains.

DA_CARA.m

Takes as inputs a portfolio of two contingent assets (x,y), and parameters $\{\beta, A\}$ and computes the value of the Disappointment Aversion model with equally likely states and CARA utility-for-gains.

Consistency Indices (folder)

Contains all MATLAB functions for calculating various inconsistency indices reported in Table 1. Modified slightly from original provided by Halevy et al. (2018).

HPZ_PRU_Software (folder)

Contains all MATLAB functions for recovering preferences. Used for calculating the Money Metric Index (MMI) which is used to report the misspecification in Table 1. Modified slightly from original provided by Halevy et al. (2018).

Others (folder)

Contains documentation, files, and functions necessary for executing functions in the Consistency Indices and HPZ_PRU_Software. Modified slightly from original provided by Halevy et al. (2018).

Data Dictionary

The data was collected in October 2018 (n=1:89) and March 2019 (n=90:171) at the Experimental Lab at the Vancouver School of Economics (ELVSE). There are eight .txt files which contain all of the raw data used to compute the results published in the paper. I will describe each briefly and provide variable names for each column.

Budgetline_Choices.txt

For each subject, records their 22 choices from linear budget sets in Part 1 of the experiment

- Column 1: Subject ID
- Column 2: Round #
- Column 3: x-coordinate for chosen portfolio
- Column 4: y-coordinate for chosen portfolio
- Column 5: x-intercept of budget line
- Column 6: y-intercept of budget line
- Column 7: 1 if choice is on 45-degree line (x=y), 0 otherwise
- Column 8: 1 if choice is on boundary (x=0 or y=0), 0 otherwise
- Column 9: Response time (in seconds)
- Column 10: Time spent reviewing the round (in seconds)

Parameters.txt

For each subject, computes the parameters of the DA-model with CRRA utility-for-gains using the MMI as a criterion. Note: these are the exact parameters that were recovered and used in the experiment for generated the binary choices in Part 2.

- Column 1: Subject ID
- Column 2: β
- Column 3: ρ
- Column 4: all zeros, not used in any way

Parameters_DA_CARA_MMI.txt

For each subject, computes the parameters of the DA-model with CARA utility-for-gains using the MMI as a criterion. Note: these are the exact parameters that were recovered and used in the to evaluate the predictive success of the model in Table 3.

- Column 1: β
- Column 2: A

Parameters_DA_CRRA_NLLS.txt

For each subject, computes the parameters of the DA-model with CRRA utility-for-gains using NLLS as a criterion. Note: these are the exact parameters that were recovered and used in the to evaluate the predictive success of the model in Table 3.

- Column 1: β
- Column 2: ρ

Parameters_EU_CRRA_NLLS.txt

For each subject, computes the parameters of the EU-model with CRRA utility-for-gains using NLLS as a criterion. Note: these are the exact parameters that were recovered and used in the to evaluate the predictive success of the model in Table 3.

- Column 1: β
- Column 2: ρ

Generated_Binary_Choices.txt

This file records, for each subject, the output of the algorithm for generating binary choices using the data in Parameters.txt and Budgetline_Choices.txt as inputs. It includes the final selected binary choice problems faced in Part 2 of the experiment, but also information on the RP-set, the RW-set, and the indifference curve associated with each observation and subject. This data is used primarily to classify the comparisons ex post as Type A, Type D, or Type U.

- Column 1: Classification by type — 1 for Type U, 2 for Type A, 3 for Type D, and 0 when an appropriate binary comparison cannot be found
- Column 2: Subject ID
- Column 3: Observation # from Part 1

- Column 4: x-coordinate for upper boundary of the RW-set where it intersects the chosen search vector (45 degree line or boundary)
- Column 5: y-coordinate for upper boundary of the RW-set where it intersects the chosen search vector (45 degree line or boundary)
- Column 6: x-coordinate for lower boundary of the RP-set where it intersects the chosen search vector (45 degree line or boundary)
- Column 7: y-coordinate for lower boundary of the RP-set where it intersects the chosen search vector (45 degree line or boundary)
- Column 8: x-coordinate for the indifference curve where it intersects the chosen search vector (45 degree line or boundary)
- Column 9: y-coordinate for the indifference curve where it intersects the chosen search vector (45 degree line or boundary)
- Column 10: x-coordinate of the comparison portfolio; i.e., the portfolio generated by the algorithm
- Column 11: y-coordinate of the comparison portfolio; i.e., the portfolio generated by the algorithm
- Column 12: x-coordinate of the original choice from Part 1
- Column 13: x-coordinate of the original choice from Part 1

Bchoices.txt

This file is used only during the experiment for entering the binary choices into the interface for Part 2. Columns 3-6 are virtually identical to Columns 10-13 in Generated_Binary_Choices.txt, except here random comparisons have been added for rounds classified as 0.

- Column 1: Subject ID
- Column 2: Round #
- Column 3: x-coordinate of Option A
- Column 4: y-coordinate of Option A
- Column 5: x-coordinate of Option B
- Column 6: y-coordinate of Option B

Binarychoices_Output.txt

This file contains the output from Part 2; the choices among binary comparisons. This is the critical output file for computing the results.

- Column 1: Subject ID
- Column 2: Round #
- Column 3: x-coordinate of chosen portfolio
- Column 4: y-coordinate of chosen portfolio
- Column 5: 1 if Option A, 2 if Option B
- Column 6: Response time (in seconds)
- Column 7: Review time (in seconds)