Haoming Liu, Jingfeng Lu, and Alberto Salvo, "Willingness to Fight on: Environmental Quality in Dynamic Contests," *RAND Journal of Economics*, forthcoming

ReadMe file on data and code prepared in January 2022

Note: Stata do-files and Matlab .m files can be read as text files in any text editor.

The following files containing source (raw) data and computer code are described in what follows:

(i) data_VictoriaEPA_API_2004_2014.xlsx
(ii) data_VictoriaEPA_temperature_2004_2014
(iii) data_VictoriaEPA_windSpeed_2004_2014
(iv) data_VictoriaEPA_24h_PM25_2004_2014
(v) data_VictoriaEPA_2015_2016.xlsx
(vi) data_NASA_Melbourne_2004_2016.dta
(vii) data_USDOS_PM25_Beijing_Guangzhou_2008_2016.dta
(viii) data_HKEPD_PM25_HongKong_2008_2015.csv
(ix) data_CMEP_PM25_6cities_2013_2016.dta
(x) data_CMEP_stationLocation_2015.dta
(xi) data_NASA_Beijing_2008_2016.dta
(xii) data_NASA_Guangzhou_2008_2016.dta
(xiii) data_NASA_HongKong_2008_2016.dta
(xiv) data_NASA_Shenzhen_2008_2016.dta
(xv) data_NASA_Tianjin_2008_2016.dta
(xvi) data_NASA_Wuhan_2008_2016.dta
(xvii) data_WTA_ranking_2004_2016.csv
(xviii) data_WTA_ranking_mean_SD_2004_2016.dta
(xix) data_flashscore_Australia_2004_2016.csv
(xx) data_betting_odds_Australia_2008.dta
(xxi) data_flashscore_China_2008_2016.csv
(xxii) data_betting_odds_China_2008.dta
(xxiii) data_WTA_cashPrize_BLS_CPI_2004_2016.xlsx
(xxiv) data_oncourt_tennisPointsMatch.dta
(xxv) data_flashscore_tennisPointsBySet.dta
(xxvi) data_press_roofClosedRain.xlsx
(xxvii) data_press_roofClosedHeat.xlsx
(xxviii) Stata do-file code_data_reduced_form_regressions.do
(xxix) [several sets] Matlab .m files in subfolder "Table *x*(, column *y*)" or "Table *x*(, panel *y*)"

Script file (xxviii) code_data_reduced_form_regressions.do runs in Stata version 15 or higher. This do-file consists of several programs (functions). The user needs to manually change the working directory to the folder in which h/she will save the source data files. The do-file creates a temporary folder in the D drive and saves temporary files to this folder. In order to assist the user, the do-file is commented throughout.

Program environmentAustralia calls on source data files (i) to (vi) and saves dataset AustraliaEnvironment.dta in the temporary folder.

Program environmentChina calls on source data files (vii) to (xvi) and saves dataset ChinaEnvironment.dta in the temporary folder.

Program contestAustralia calls on source data files (xviii), (xix), and (xx) and saves dataset AustraliaContest.dta in the temporary folder.

Program contestChina calls on source data files (xviii), (xxi), and (xxii) and saves dataset ChinaContest.dta in the temporary folder.

Program playerRanking is an auxiliary program that calls on source data file (xvii) and produces a dataset with player characteristics, saved in the temporary folder, which is called on by programs contestAustralia and contestChina.

Program cleanPlayerName is an auxiliary program that is called on by programs contestAustralia and contestChina.

Program combineContestEnvironment combines AustraliaContest.dta, AustraliaEnvironment.dta, ChinaContest.dta, and ChinaEnvironment.dta. It calls on source data file (xxiii) and further prepares variables for empirical analysis. The program saves the combined dataset PooledAnalysis.dta in the temporary folder.

Program descriptives replicates descriptive statistics reported in the article including its appendix (in tables and figures, and in the text). A table, figure, in-text equality test, etc. that is replicated/supported is indicated by the relevant commands in the do-file.

Program reducedForm replicates the results of the reduced-form (regression) analysis, i.e., Tables 2-4 and Table A.2. In addition, source data files (xxiv) and (xxv) are called on to replicate Table A.3.

Program dataMatlab prepares the estimation sample used in the structural analysis. The program saves the estimation sample in the temporary folder as the text file Estimation_data_all.txt.[1] The program also calls on source data files (xxvi) and (xxvii), containing variables that are used in structural analysis.

[1] For convenience, we include this text file alongside the Matlab .m files that replicate each set of structural estimates. To be clear, using Stata do-file (xxviii) the user should be able to replicate the text file containing the structural estimation sample from the raw source data provided.

Subfolder “Table *x*(, column *y*)” or “Table *x*(, panel *y*)” contains Matlab .m files that replicate the structural estimates reported in Table *x*(, column *y*) or Table *x*(, panel *y*), e.g., Table 6, column 1 or Table 7, top panel. In order to assist the user, .m files are commented throughout.

Subfolder “Random coefficients” replicates the estimates of the random coefficients model variant presented in Appendix A.3.

Note that the code in subfolder “Table 5” also replicates estimates reported in Table 6, column 3; Table 8; Table 9 (and Figure A.7); and Table A.4; as well as Figures 8, 9, and A.5.

Code that prepares Figures 6-7 and A.1-A.4 is available at the end of file script.m in subfolder “Table 5”.

Code that prepares Figure A.6 is available at the end of files mc.m and likelihood_obj.m in subfolder “Table 5”.

To further assist the user, Excel workbook “further help for user.xlsx” calculates model predictions, based on Table 5 estimates, which are discussed in Section 5, Results.