Readme File, Replication Package for "Capital-Reallocation Frictions and Trade Shocks"

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1 Data Availability Statement

We certify that the authors of the manuscript have legitimate access to and permission to use the data used in this manuscript. We certify that the authors of the manuscript have documented permission to redistribute/publish the data contained within this replication package. Some data cannot be made publicly available.

The paper uses several datasets. Details of each dataset follow in this list:

- 1. Encuesta Economica Anual
 - FILE: Several raw Stata files in the folder "./stata_replication/Data/EEA/"
 - SOURCES: Instituto Nacional de Estadística e Informática, available at http://iinei.inei.gob.pe/microdatos/
 - NOTES: Open Access. Downloaded in 2018.
 - PROVIDED: Yes
- 2. Bilateral Trade-data
 - FILE: "./stata_replication/Data/imp_exp_peru.csv",

 "./stata_replication/Data/Modified/import_latamcountries_clean.dta",

 "./stata_replication/Data/Modified/import_umicountries_clean.dta"
 - SOURCES: COMTRADE, available at https://comtrade.un.org/data/
 - NOTES: Open Access. Downloaded in 2018.
 - PROVIDED: No, per policy on use and re-dissemination of UN COMTRADE data.

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- 3. Harmonization of HS codes to ISIC Rev 3.
 - FILE: "./stata_replication/Data/Modified/concordance_hs_s3.dta"
 - SOURCES: WITS, available at https://comtrade.un.org/data/
 - NOTES: Open Access. Downloaded in 2018.
 - PROVIDED: No, per policy on use and re-dissemination of UN COMTRADE data.

4. Padrón RUC

- FILE: "./stata_replication/Data/Modified/padron_reducido_ruc_exit.dta", "./stata_replication/Data/Modified/ruc_exit_prel.dta"
- SOURCES: Superintendencia Nacional Tributaria
- NOTES: Information Request via Law of Information Disclosure (2017) and updated via website (2018)
- PROVIDED: No, as they contain firm tax identifiers. We provide an anonymized dataset with information about firm exit which we derive from Padrón RUC. The file is "./stata_replication/Data/Modified/ruc_exit_prel_final.dta".

5. Concordance IRUC - RUC 2007-2011

- SOURCES: Instituto Nacional de Estadística e Informática
- NOTES: Information Request to Instituto Nacional de Estadística e Informática
- PROVIDED: No, as they contain firm tax identifiers. We use this file to merge *Padrón RUC* with *Encuesta Económica Anual* to create the firm-exit file described above. We provide the anonymized version of the data.
- 6. Peru GDP Deflator and Exchange Rate
 - FILE: "./stata_replication/Data/Modified/gdp_deflator.dta",
 - './stata_replication/Data/Modified/gdp_deflator.csv",
 - "./stata_replication/Data/Modified/erate.dta",
 - "./stata_replication/Data/Modified/erate.csv"
 - SOURCES: Banco Central de Reserva del Perú
 - NOTES: Open Access. Downloaded in 2018.
 - PROVIDED: Yes
- 7. Fixed Asset Tables (depreciation rates)
 - FILE: "./stata_replication/Data/NIPA_dep_rates.dta", "./stata_replication/Data/NIPA_dep_rates.csv"
 - SOURCES: Bureau of Economic Analysis

- NOTES: Open Access. Downloaded in 2017.
- PROVIDED: Yes
- 8. Peru Input-Output Matrix 2007
 - FILE: "./stata_replication/Data/inputoutput_07_raw"
 - SOURCES: Instituto Nacional de Estadística e Informática
 - NOTES: Open Access. Downloaded in 2021.
 - PROVIDED: Yes

2 Computational Requirements

- Stata (code was last run in version 16)
 - Need package estout, from("http://fmwww.bc.edu/RePEc/bocode/e")
 - Need package winsor2, from("http://fmwww.bc.edu/RePEc/bocode/w")
 - Need package reghdfe, from("http://fmwww.bc.edu/RePEc/bocode/r")
 - Need package coefplot, from("http://fmwww.bc.edu/RePEc/bocode/c")
 - Need package lincomest, from("http://fmwww.bc.edu/RePEc/bocode/l")
- Matlab (code was last run in version 2019a)

For reproducibility, we set a seed in Stata in line 38 of MAIN_rep_stata.do.

2.1 Run-time Requirements

- Stata code runs in approximately 1 hour.
- Matlab code runs in less than 30 minutes.

The code was run in a 2019 iMac, 3.6 GHz 8-Core Intel Core i9 / 32 gb RAM.

3 Instructions for Replication

To replicate the results in the paper:

- In Stata, run the file MAIN_rep_stata.do located in ./stata_replication/Codes/.
- In Matlab, run the file master.m located in ./Matlab/.

4 Files Description

4.1 Stata Codes

All Stata codes are in ./stata_replication/. The overall folder structure is as follows:

- parent folder
- ./stata_replication/Data/
- \bullet ./stata_replication/Codes/
- ./stata_replication/Compiled/

Important: To replicate the paper from scratch, run the file MAIN_rep_stata.do located in the parent folder. This is the "master file". Simply run the master file to get all the numbers and plot the associated figures and tables in the main text and appendices (see Section 3 for a list of figures and tables generated by the file and mapping to the paper ordering). The master file install some additional packages from Stata necessary to run the code.

4.1.1 Data folder (i.e., ./stata_replication/Data/)

The codes folder contains the following subfolders:

- parent folder; this folder contains raw data from other origins than EEA
- EEA; This folder contains all raw files from the EEA needed to create the clean versions of the datasets. It is organized by years
- Modified; This folder contains intermediate files that will be created in the program as well as auxiliary files

4.1.2 Codes folder (i.e., ./stata_replication/codes/)

The codes folder contains the following scripts:

- merge_eea.do; This file construct the final dataset with information of the firm-level survey
- data_prep.do; This file prepares the data and creates variables. It uses one subfile
 - data_trade_prep.do; This file prepares the data and creates variables for the trade shock
- section_5.do; This do file produces all numbers, tables and figures included in Section 5 of the main text. It uses two subfiles
 - section_5_pre.do; This file prepares the data and creates variables

- moments_s5; This file creates two moments needed for calibration
- section_6.do; This do file produces all numbers, tables and figures included in Section 6 of the main text
- section_7.do; This do file produces all numbers, tables and figures included in Section 7 of the main text
- appendix_data.do; This do file produces all tables and figures included in Online Appendices A and B. It uses one subfile
 - appendix_data_pre.do; This file prepares the data and creates variables
- appendix_K.do; This do file produces all tables and figures included in Online Appendix C
- appendix_model.do; This do file produces all tables and figures included in Online Appendix D. It uses one subfile
 - 2_model_mom_gen_data.do; This file creates the calibration moments
- appendix_tradeshocks.do; This do file produces all tables and figures included in Online Appendix E
- merge_exit.do; This do merge the EEA data with firm-level exit and anonymize it

4.1.3 Compiled folder (i.e., ./stata_replication/Compiled/)

The folder contains the complete set of subfolders storing all the figures and tables generated by the do files in Codes. We have provided the cleaned data files for users who wish to just directly plot a particular figure or table. However, the folder structure MUST be maintained forthe do files to work.

The folders (and associated files) are organized as follows:

- ./Figures/; saves all produced figures in format eps
- ./Tables/; saves all produced tables in format tex

4.2 Matlab Codes

All Matlab codes are in ./Matlab/. The overall folder structure is as follows:

- parent folder
- ./Matlab/functions/
- ./Matlab/utility functions/
- ./Matlab/common_mat_files/xstar_dM_source/
- ./Matlab/mat_files_compiled/
- ./Matlab/figures/

- ./Matlab/tables/
- ./Matlab/paper_numbers/

Important: To replicate the paper from scratch, simply run the file master.m located in the parent folder.

4.2.1 Parent folder (i.e., ./Matlab/)

Besides the associated subfolders listed above, the parent folder contains the following scripts and functions

- master.m; This is the "master file". Simply run the master file from the command line to solve all the models in the paper from scratch, and then plot the associated figures and tables in the main text (see Section 3 for a list of figures and tables generated by the file and mapping to the paper ordering).
- gen_figures_tables.m; If the user only wishes to plot the figures and tables without solving for the code, simply run this script from the command line. Note that this script only works if the various mat-files in the folder mat_files_compiled already exists. We have provided the full set of MAT files for replication so that any user can run this script directly.

Besides the two scripts above, the following functions (wrappers) solve the various versions of our model as described below.

- model_baseline.m; this solves our baseline model (Sections 5 and 6)
- event_study.m; this runs the event study results in Section D.2
- model_recreate_transition.m; this runs the decomposition exercises discussed in Section 6.3.3
- model_trade_shock_baseline_serial.m ; Multi-industry extension for baseline (Section 8)
- model_trade_shock_frictionless_serial.m; Multi-industry extension for counterfactual model (Section 8)
- model_baseline_PE.m ; this solves our baseline model in partial equilibrium (Section 8.1)
- mode_no_convex.m; this solves our alternative model without a convex cost (Section 8.2)
- model_no_eta.m; this solves our alternative model with a restriction fixed cost calibration (Section 8.3)
- model_sigstar.m; this solves our alternative model with a higher volatility of TFP (Section D.8)
- model_fixedcost.m; this solves our alternative model where we also include an additional fixed cost of adjustment (Section D.2 Table D4)

4.2.2 Functions folder (i.e., ./Matlab/functions/)

The functions folder contains all the nested and child functions called by the wrappers above. A brief description is given below:

- f_PE_ss_autarky_convex ; solves for stationary equilibrium for baseline model with closed economy
- f_PE_ss_trade_shock_convex ; solves for stationary equilibrium for baseline model with open economy
- f_PE_ss_autarky; solves for stationary equilibrium for model without convex costs with open economy
- f_PE_ss_trade_shock; solves for stationary equilibrium for two models: (i) without convex costs with closed economy and (ii) frictionless model with closed economy
- f_ss_autarky.m; solves for stationary equilibrium for frictionless model with closed economy
- f_transition_mkt_convex.m; solves for transitional dynamics for baseline model
- f_transition_mkt; solves for transitional dynamics for model without convex costs or for frictionless model
- f_recreate_transition_PE_convex.m; function called by model_recreate_transition.m.m to solve associated model for model with convex costs. Does not work independently of model_recreate_transition.m.m.
- f_recreate_transition_PE; function called by model_recreate_transition.m.m to solve associated model for model with convex costs. Does not work independently of model_recreate_transition.m.m.
- f_transition_PE_convex; function called by model_baseline_PE.m to solve for transitional dynamics for baseline model in partial-equilibrium. Does not work independently of model_baseline_PE.m.
- f_transition_PE; function called by model_baseline_PE.m to solve for transitional dynamics for model without frictions in partial-equilibrium. Does not work independently of model_baseline_PE.m.
- f_targets_out_fixedcost.m ; solves the model with fixed cost. Does not work independently of model_fixedcost.m .
- g_event_study.m ; function called by event_study.m to solve associated model and conduct event study. Does not work independently of event_study.m.
- h_transition_shocks_convex.m ; solves for transitional dynamics for baseline model with the multi-industry extension
- h_transition_shocks ; solves for transitional dynamics for model without frictions with the multi-industry extension

- get_moments_convex.m; function called by multiple other functions to generate moments reported in the tables.
- get_moments; function called by multiple other functions to generate moments reported in the tables.

The following functions below perform the various solution algorithms described in the paper (value function iteration, power iteration)

- mainfuncMP_convex.m
- mainfuncMP_PE.m
- mainfuncMP_q1.m
- mainfuncMP.m
- mainfuncMP_convex_fixed_C.m
- mainfuncMP_fixed_C.m

The following functions are auxiliary functions as described below

- tauchen.m; construct discretized grid for AR(1) process
- goldenx.m; solver for golden section
- optget.m; optimization setting for goldenx.m
- pop_reg.m ; runs population regressions using discretized distribution.
- sim_discrete_iid.m; simulate i.i.d. process
- sim_discreteMC.m; simulate AR(1) process discretized via tauchen.m
- thresholds.m; used to generate threshold plots in paper
- v2struct.m; used to unpack structures

4.2.3 Utility functions folder (i.e., ./Matlab/utility functions/)

The utility functions folder provide functions used in generating the various figures and tables in the paper.

- extract_outputs.m; This function is used to extract the data from the raw workspaces produced by the earlier functions and convert them to a format that is suitable for ploting
- num2words.m; this converts numeric inputs (whole numbers) in text, as displayed in the paper (example: "2" gets converted to "two").

4.2.4 xstar_dM_source folder (i.e., ./Matlab/common_mat_files/xstar_dM_source/)

This folder contains the parameters needed as input for solving the various associated models

- dMf_star.mat; parameters needed to conduct the trade shock as in Section 6.1
- xstar_convex_ik.mat; the baseline parameters. Also used in initial inputs for counterfactuals that draw on the baseline parameter (namely, PE counterfactual in Section 8.1, high volatility counterfactual in Section D.8)
- xstar_no_convex.mat; parameters for no convex cost counterfactual (Section 8.2)
- xstar_no_eta.mat; parameters for restricted fixed cost calibration (Section 8.3)
- xstar_fixedcost.mat; parameters for extension with fixed capital adjustment cost calibration (Section D.2)

4.2.5 mat_files_compiled folder (i.e., ./Matlab/mat_files_compiled/)

The folder contains the complete set of subfolders storing all the mat files generated by master.m when the model is solved. We have provided the mat files for users who wish to just directly plot the figures and tables. However, the folder structure MUST be maintained for those functions to work; otherwise, the user needs to run master.m again from scratch.

The folders (and associated files) are organized as follows:

- ./baseline/mat_files/; all files here are associated with the baseline model
 - kmax_autarky_baseline; parameter that sets the maximum value for capital on the grid
 - kmax_autarky_q1_baseline; parameter that sets the maximum value for capital on the grid, frictionless model
 - Mnow; market-clearing mass of potential entrants in steady-state closed economy
 - Pss_autarky_baseline; market-clearing price of output in steady-state closed economy
 - Pss_autarky_q1_baseline ; market-clearing price of output in steady-state closed economy, frictionless model
 - Pss_tradeshock_baseline; market-clearing price of output in steady-state open economy
 - Pss_tradeshock_q1_baseline; market-clearing price of output in steadystate open economy, frictionless model
 - ss_autarky_baseline; steady-state closed economy
 - ss_autarky_q1_baseline; steady-state closed economy, frictionless model
 - ss_tradeshock_baseline; steady-state open economy
 - ss_tradeshock_q1_baseline; steady-state open economy, frictionless model

- transition_baseline; transition path
- transition_q1_baseline; transition path, frictionless model
- ws_plots; mat file generated by extract_outputs.m which extracts the relevant statistics.
- ./baseline/mat_files/results
 - event_plots_q1; investment statistics for conducting the event study in Appendix D.2 (frictionless model)
 - event_plots; investment statistics for conducting the event study in Appendix D.2 (baseline model)
 - regs; regression outputs from running the multi-industry model, baseline model
 - regs_frictionless; regression outputs from running the multi-industry model, frictionless model
 - stats_data; simulation outputs from running the multi-industry model, baseline model
 - stats_frictionless_data; simulation outputs from running the multi-industry model, frictionless model
- ./baseline_PE/mat_files/; all files here are associated with the baseline model solved in partial equilibrium
 - transition_PE; transition path
 - transition_q1_PE; transition path, frictionless model
 - ws_plots; mat file generated by extract_outputs.m which extracts the relevant statistics.
- ./fixed_cost/mat_files/; all files here are associated with the alternative model calibrated with a fixed cost of adjustment (described in Appendix D.2 and reported in Table D4)
 - stats_out_fixedcost; mat-file used to generate statistics reported in Table
 D4
- ./high_sigma/mat_files/ ; all files here are associated with the high volatility model
 - kmax_autarky_high_sigma ; parameter that sets the maximum value for capital on the grid
 - kmax_autarky_q1_high_sigma ; parameter that sets the maximum value for capital on the grid, frictionless model
 - Mnow; market-clearing mass of potential entrants in steady-state closed economy
 - Pss_autarky_high_sigma; market-clearing price of output in steady-state closed economy
 - Pss_autarky_q1_high_sigma; market-clearing price of output in steadystate closed economy, frictionless model

- Pss_tradeshock_high_sigma; market-clearing price of output in steadystate open economy
- Pss_tradeshock_q1_high_sigma; market-clearing price of output in steadystate open economy, frictionless model
- ss_autarky_high_sigma; steady-state closed economy
- ss_autarky_q1_high_sigma; steady-state closed economy, frictionless model
- ss_tradeshock_high_sigma; steady-state open economy
- ss_tradeshock_q1_high_sigma; steady-state open economy, frictionless model
- transition_high_sigma; transition path
- transition_q1_high_sigma ; transition path, frictionless model
- ws_plots; mat file generated by extract_outputs.m which extracts the relevant statistics.
- ./no_convex/mat_files/ ; all files here are associated with the no convex cost model
 - kmax_autarky_no_convex; parameter that sets the maximum value for capital on the grid
 - kmax_autarky_q1_no_convex; parameter that sets the maximum value for capital on the grid, frictionless model
 - Mnow; market-clearing mass of potential entrants in steady-state closed economy
 - Pss_autarky_no_convex; market-clearing price of output in steady-state closed economy
 - Pss_autarky_q1_no_convex; market-clearing price of output in steady-state closed economy, frictionless model
 - Pss_tradeshock_no_convex; market-clearing price of output in steady-state open economy
 - Pss_tradeshock_q1_no_convex; market-clearing price of output in steadystate open economy, frictionless model
 - -ss_autarky_no_convex; steady-state closed economy
 - ss_autarky_q1_no_convex; steady-state closed economy, frictionless model
 - ss_tradeshock_no_convex; steady-state open economy
 - ss_tradeshock_q1_no_convex; steady-state open economy, frictionless model
 - transition_no_convex; transition path
 - transition_q1_no_convex; transition path, frictionless model
 - ws_plots; mat file generated by extract_outputs.m which extracts the relevant statistics.
- ./no_eta/mat_files/ ; all files here are associated with the restricted fixed cost model
 - kmax_autarky_no_eta; parameter that sets the maximum value for capital on the grid

- kmax_autarky_q1_no_eta; parameter that sets the maximum value for capital on the grid, frictionless model
- Mnow; market-clearing mass of potential entrants in steady-state closed economy
- Pss_autarky_no_eta; market-clearing price of output in steady-state closed economy
- Pss_autarky_q1_no_eta; market-clearing price of output in steady-state closed economy, frictionless model
- Pss_tradeshock_no_eta; market-clearing price of output in steady-state open economy
- Pss_tradeshock_q1_no_eta; market-clearing price of output in steady-state open economy, frictionless model
- ss_autarky_no_eta; steady-state closed economy
- ss_autarky_q1_no_eta; steady-state closed economy, frictionless model
- ss_tradeshock_no_eta; steady-state open economy
- ss_tradeshock_q1_no_eta; steady-state open economy, frictionless model
- transition_no_eta; transition path
- transition_q1_no_eta; transition path, frictionless model
- ws_plots; mat file generated by extract_outputs.m which extracts the relevant statistics.
- ./Recreated_workspace/mat_files/; all files here are associated with the decomposition exercises described in Section 6.3.3 and Section 8.3.
 - transition_recreate_baseline; baseline model results as discussed in Section 6.3.3
 - transition_recreate_baseline_q1; frictionless model results as discussed in Section 6.3.3
 - transition_recreate_baseline_no_eta; baseline model results as discussed in Section 8.3
 - transition_recreate_baseline_no_eta_q1 ; frictionless model results as discussed in Section 8.3

4.2.6 figures folder (i.e., ./Matlab/figures/)

This folder collects all the figures reported in the paper. See section 3 for a list and mapping to the paper. All figures are stored as .eps files.

4.2.7 tables folder (i.e., ./Matlab/tables/)

This folder collects all the tables reported in the paper. See section 3 for a list and mapping to the paper. All tables are stored as .tex files and formatted exactly as it looks in the paper.

4.2.8 numbers folder (i.e., ./Matlab/paper_numbers/)

This folder contains three tex file generating all the numbers referenced in the main text.

5 List of Tables, Figures, and Numbers

All figures are stored as .eps files and all tables are stored as .tex files.

5.1 List of Tables, Figures, and Numbers from Stata

Table 1: Main Text

| Figure/Table/# | Program | Line | File/Source | Final Formatted File |
|--|------------------|--------------------|----------------------------------|---------------------------------|
| Exit rates | appendix_data.do | 144, 147, 239, 242 | | Main text, page 13 |
| MRPK dispesion (1.47) | section 5. do | 21 | | Main text, page 14 |
| MRPK autocorrelation (0.73) | section5.do | 33 | | Main text, page 14 |
| Neg Adj. Investment (11%) | section5.do | 44 | | Main text, page 15 |
| Table 2a data + | section5.do | 61 | mrpk_transition_bs.tex | table_02_transition_matrix_data |
| Survival Reg Coef. and SE | section5.do | 82 | reg_survival.tex | Main text, page 17 |
| Table 1 data parameters α, δ | section5.do | 26 | | table_01_parameters_baseline |
| MRPK IK elasticity data | section5.do | 120 | reg_ik_mrpk.tex | Main text, page 21 |
| Lumpiness data (0.47) | section5.do | 155 | | Main text, page 22 |
| Adjustment factor (0.49) | section 5. do | 161 | | Main text, page 22 |
| 10%, half prices | section6.do | 386, 399 | | Main text, page 24 |
| Lumpiness data (0.20) | section5.do | 175 | | Main text, page 22 |
| factor of 19 | section 7. do | 17 | | Main text, page 33 |
| 3% to 14% | section 7. do | 27 | | Main text, page 33 |
| SD ChComp (0.12) | section7.do | 61 | | Main text, page 34 |
| 1.2% | section 7. do | 98 | | Main text, page 34 |
| 1.6% | section7.do | 88 | | Main text, page 34 |
| 5.3 | section7.do | 136 | | Main text, page 35 |
| 1.8 | section 7. do | 174 | | Main text, page 35 |
| 0.28 (0.018) | section7.do | 176 | reg_survival_chshock_4digits.tex | Main text, page 36 |
| 0.203 (0.009) | section 7. do | 176 | reg_survival_chshock_4digits.tex | Main text, page 36 |
| Table 3a | section 7. do | 91 | reg_mrpk_4digits.tex | table_03_empirics_mprkdis |
| Table 3b | section7.do | 142 | reg_inaction_4digits.tex | table_03_empirics_firmlevel |
| | | | | Continued on next page |

Table 1 – continued from previous page

| | | | . D | |
|----------------------------|-------------|-----------------------|--|-----------------------------|
| Figure/Table/# | Program | Line | File/Source | Final Formatted File |
| Table 3b | section7.do | 176 | reg_survival_chshock_4digits.tex | table_03_empirics_firmlevel |
| Table 4a | section7.do | 208, 237 287, 333, | m_mrpk.tex, m_mrpk_fric.tex | table_04_model_mprkdis |
| Table $4b + twice / seven$ | section7.do | 340, 343 370, 400, | m inaction.tex, m inaction fric.tex table 04 model firmlevel | table_04_model_firmlevel |
| Table $4b + 68\%$ | section7.do | 409 | m_survival.tex, m_survival_fric.tex table_04_model_firmlevel | table_04_model_firmlevel |

Table 2: Online Appendices

| Fig/Tah/# | Program | Line | File/Source | Final Formatted File |
|--------------------|------------------|----------|---|---|
| 11 /252 /251 | 1: -1-1 | 1 | | 1 V |
| approx. 70 | appendix_data.do | 45 | | Appendix, page 1 |
| approx. 54 | appendix_data.do | 22 | | Appendix, page I |
| Table A1 | appendix_data.do | 65, 260 | ind_shares.tex, erate_al.tex | table_A1_erate_a1_f |
| Figure A1 | appendix_data.do | 313 | Dep_rates_firms.eps | fig_A1_Dep_rates_firms |
| Figure B1 | appendix_data.do | 392 | asker_et_al_graph2.eps | fig_B1_asker_et_al_graph2 |
| Notes B1 | appendix_data.do | 384, 385 | | Appendix, Fig B1 |
| Figure B2 | appendix_data.do | 412 | inv_rates.eps | fig_B2_inv_rates |
| Table B1 | appendix_data.do | 494 | descriptive_stats_investment.tex | table_B1_invstats |
| Table B2 | appendix_data.do | 536 | TFP_benchmark_all_industries_bs.tex | table_B2_TFP_benchmark_all_industries_bs |
| Table B3 | appendix_data.do | 268 | benchmark_tfp_ciiu_*_bs.tex | table_B3_benchmark_tfp_ciiu_*_bs |
| Table B4 | appendix_data.do | 925 | mrpk_transition_exit_hybrid_bs.tex | table_B4_mrpk_transition_exit_hybrid_bs |
| Table B5 | appendix_data.do | 809 | benchmark_ciiu_*_bs.tex | table_B5_benchmark_ciiu_15_bs |
| Table B6 | appendix_data.do | 654 | table_persistence_firmfe.tex | table_B6_persistence_firmfe_paper |
| Figure B3 | appendix_data.do | 889 | marg_eff_labor_pr_stay_quant.eps | fig_B3_marg_eff_labor_pr_stay_quant |
| Table B7 | appendix_data.do | 701-713 | | Appendix, page XIV |
| Figure B4 | appendix_data.do | 756, 765 | grk_dist_mpk1.eps, grk_dist_mpk3.eps | fig_B4_grk_dist_mpk1.eps, fig_B4_grk_dist_mpk3.eps |
| Figure B5 | appendix_data.do | 776, 785 | tfp_surprise_dist_mpk1.eps, tfp_surprise_dist_mpk1.eps | fig_B5_tfp_surprise_dist_mpk1.eps, fig_B5_tfp_surprise_dist_mpk1.eps |
| Figure B6 | appendix_data.do | 826 | survival_contour_base_iv.eps | fig_B6_survival_contour_base_iv |
| Table B8 | appendix_data.do | 950 | reg_survival_rob.tex | table_B8_survival_rob |
| Table B9 | appendix_data.do | 1010 | reg_survival_dep.tex | table_B9_reg_survival_dep |
| Figure B7 | appendix_data.do | 1025 | survive_dep_margins.eps | fig_B7_survive_dep_margins |
| $0.88,0.69,\ 0.99$ | appendix_data.do | 798, 799 | | Appendix, page XIX |
| | | | | Continued on next page |

| page |
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| previous |
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| | Final Formatted File | table_B10_MPN_all_industries_bs | table_C1_dep_reg_paper | table_C2_persistence_type | Appendix, page XXIX | table_C4_Ecorrected_ciiu_*_bs | Appendix, page XXXIII | table_D3_reg_ik_dm | | table_D5_sumstats_spikes | | fig_D1_max_I_K_events_nogaps | fig_E1_trade_shock_sic_exp | table_E1_summ_chcomp | table_E2_first_stage | fig_E2_ASDMRPK_lags_2 | table_E3_rm_mrpk_noint_2dig | table_E4_rm_mrpk_noint_2003 | | table_E5_rm_mrpk_noint_rob | | table_E6_reg_loggrk_io_paper | table_E7_reg_survival_io_paper | table_E8_inaction_rob_paper | table_E9_survival_rob_paper | table_E10_inaction_IV_depdummy |
|-------------------------------------|----------------------|---------------------------------|------------------------|---------------------------|-------------------------------|-------------------------------|-----------------------|--------------------|-----------|--------------------------|-----|------------------------------|----------------------------|-------------------------|-------------------------|-------------------------|-----------------------------|----------------------------------|----------------------------------|--------------------------------------|------------------------------|------------------------------|--------------------------------|-----------------------------|-----------------------------|--------------------------------|
| rapic a communication provides page | ${ m File/Source}$ | MPN_all_industries_bs.tex | dep_reg.tex | table_persistence_*.tex | ${ m table_persistence.tex}$ | Ecorrected_ciiu_*_bs.tex | dat_in_TableD1.xlsx | reg_ik_mrpk.tex | | | | max_I_K_events_nogaps.eps | trade_shock_sic_exp.eps | summ_chcomp.tex | first_stage.tex | ASDMRPK lags_2.eps | r_mrpk_noint_2dig4dig.tex | $r_mrpk_noint_4dig_2003.tex$ | r_mrpk_noint_4digits_impint.tex, | $r_mrpk_noint_4dig_altinst.tex,$ | r_mrpk_noint_4digits_ols.tex | reg_loggrk_io.tex | reg_survival_io.tex | inaction_rob.tex | survival_rob.tex | inaction_IV_depdummy.tex |
| TODE | \mathbf{Line} | 832 | 31 | 29 | 115 | 157 | 94 | 120 | 128, 150, | 159, 166, 189, 198, | 205 | 239 | 82 | 92 | 106 | 176 | 189 | 208 | 933 958 | 255, 256, 578 | 0 | 316 | 342 | 416 | 464 | 511 |
| | ${f Program}$ | appendix_data.do | appendix_K.do | appendix_K.do | appendix_K.do | appendix_K.do | appendix_model.do | section5.do | | appendix_model.do | | appendix_model.do | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do | | appendix_tradeshocks.do | | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do | appendix_tradeshocks.do |
| | Fig/Tab/# | Table B10 | Table C1 | Table C2 | Table C3 | Table C4 | Table D1 | Table D3 | | Table D5 | | Figure D1 | Figure E1 | Table E1 | Table E2 | Figure E2 | Table E3 | Table E4 | | Table E5 | | Table E6 | Table E7 | Table E8 | Table E9 | Table E10 |

5.2 List of Tables, Figures, and Numbers generated in Matlab

For quick reference, all figures and tables are generated by the m-file gen_figures_tables.m.

5.2.1 Figures

The figures are saved in the folder ./Matlab/figures/ as follows:

- fig_01_baseline_inv_exit_qb; Figure 1a in main text
- fig_02_baseline_inv_exit_q1; Figure 1b in main text
- fig_03_baseline_P ; Figure 2a in main text
- fig_04_baseline_K ; Figure 2b in main text
- fig_05_fig_Y_domestic; Figure 2c in main text
- fig_06_baseline_M ; Figure 2d in main text
- fig_07_baseline_TFP; Figure 3a in main text
- fig_08_baseline_sd_mrpk ; Figure 3b in main text
- fig_09_baseline_inaction; Figure 4a in main text
- fig_10_baseline_exit; Figure 4b in main text
- fig_11_baseline_TFP_uncorrected; Figure 5a in main text
- fig_12_baseline_normalizing_m; Figure 5b in main text
- fig_13_inaction_PE ; Figure 6a in main text
- fig_14_exit_PE; Figure 6b in main text
- fig_15_baseline_imp; Figure D2 in Appendix
- fig_16_baseline_N_manu; Figure D3 in Appendix
- fig_17_baseline_avg_tfpq; Figure D4 in Appendix
- fig_18_TFPQ_baseline_v_PE ; Figure D5 in Appendix
- fig_19_TFPQ_baseline_v_no_convex; Figure D6 in Appendix
- fig_20_inaction_no_convex; Figure D7a in Appendix
- fig_21_exit_no_convex ; Figure D7b in Appendix
- fig_22_TFPQ_baseline_v_no_eta; Figure D8 in Appendix
- fig_23_TFPQ_baseline_v_sigma; Figure D9 in Appendix
- fig_24_C1a ; Figure C1a in Appendix
- fig_24_C1b; Figure C1b in Appendix
- fig_25_C2a; Figure C2a in Appendix
- fig_25_C2b ; Figure C2b in Appendix
- s_probs_china_shock_contour_iv ; Figure E3 in Appendix

5.2.2 Tables

The tables are saved in the folder ./Matlab/tables/ as follows:

- table_01_parameters_baseline; Table 1
- table_02_transition_matrix_baseline; Table 2b
- table_03_calibration_baseline; Table D1
- table_04_ss_agg_baseline_vs_frictionless; Table D2
- table_05_parameters_fixedcost; Table D4
- table_transition_matrix_frictions; Table D6
- table_06_ss_agg_baseline_vs_trade; Table D7
- \bullet table_07_ss_welfare; Table D8
- table_08_parameters_no_convex; Table D9
- table_09_parameters_no_eta ; Table D10

5.2.3 Numbers

The files referenced here are save in the folder ./Matlab/paper_numbers/.

All numbers referenced to in the text are saved as macros in two intermediate files table_macros_model.tex and table_macros_data.tex. The file replicate_text_numbers.tex compiles these macros and generates a single PDF referencing these numbers. A pre-compiled copy has already been provided in this code packet.