BFW Equilibrium Gender LFP and Wage Code Companion

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Contents

Preface

This is a work-in-progress Matlab package consisting of functions that solve the equilibrium gender labor force participation and wage model in Bhalotra, Fernández and Wang (2022). Tested with Matlab 2021b (The MathWorks Inc, 2021).

All functions are parts of a matlab toolbox that can be installed:

> Download and install the Matlab toolbox: PrjLabEquiBFW.mltbx

The Code Companion can also be accessed via the bookdown site and PDF linked below:

> **bookdown pdf**, **MathWorks File Exchange**

This bookdown file is a collection of mlx based vignettes for functions that are available from PrjLabEquiBFW. Each Vignette file contains various examples for invoking each function.

The package relies on MEconTools, which needs to be installed first. The package does not include allocation functions, only simulation code to generate the value of each stimulus check increments for households.

The site is built using Bookdown (Xie, 2020).

Please contact FanWangEcon for issues or problems.

Chapter 1

Introduction

1.1 Bhalotra, Fernández, and Wang (2022)

In Bhalotra, Fernández, and Wang (2022).

Chapter 2

Core Functions

2.1 CES Demand Core Functions

This is the example vignette for function: **bfw_mp_func_demand** from the **PrjLabEquiBFW Package**. This function generates a container map with key CES demand-side equation for a particular sub-nest.

2.1.1 Default Test

Default test

```
bl_verbose = true;
mp_func_demand = bfw_mp_func_demand(bl_verbose);
```

```
----------------------------------------
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
CONTAINER NAME: mp_func Functions
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                               i      idx
                              ----    ----    ------------------------------------------------

    fc_OMEGA                  "1"     "1"     "@(p1,p2,rho,beta_1,beta_2)p1.*fc_d1(p1,p2,1,1,rho,be
    fc_d1                     "2"     "2"     "@(p1,p2,Y,Z,rho,beta_1,beta_2)(Y/Z).*(beta_1+beta_2.
    fc_d2                     "3"     "3"     "@(p1,p2,Y,Z,rho,beta_1,beta_2)(Y/Z).*(beta_1.*((p2./
    fc_lagrange_x1            "4"     "4"     "@(p1,rho,beta_1,beta_2,x_1,x_2)p1/(((beta_1*x_1^(rho
    fc_lagrange_x2            "5"     "5"     "@(p2,rho,beta_1,beta_2,x_1,x_2)p2/(((beta_1*x_1^(rho
    fc_output_nest            "6"     "6"     "@(q1,q2,rho,beta_1,beta_2)((beta_1)*q1^(rho)+beta_2*
    fc_p1_foc                 "7"     "7"     "@(lagrangem,rho,beta_1,beta_2,x_1,x_2)lagrangem*(((b
    fc_p2_foc                 "8"     "8"     "@(lagrangem,rho,beta_1,beta_2,x_1,x_2)lagrangem*(((b
    fc_share_given_elas_foc   "9"     "9"     "@(rho,p1,p2,x1,x2)fc_share_given_elas_foc_Q(rho,p1,p
    fc_w1dw2                  "10"    "10"    "@(x_1,x_2,rho,beta_1,beta_2)(x_2/x_1)^(1-rho)*(beta_
    fc_yz_ratio               "11"    "11"    "@(p1,p2,q1,q2,rho,beta_1,beta_2)fc_revenue(p1,p2,q1,
```

Appendix A

Index and Code Links

A.1 Introduction links

1. The Labor Demand and Supply Problem: **mlx** | **m** | **pdf** | **html**
   - The Labor Demand and Supply Problem

A.2 Core Functions links

1. CES Demand Core Functions: **mlx** | **m** | **pdf** | **html**
   - This function generates a container map with key CES demand-side equation for a particular sub-nest.
   - **PrjLabEquiBFW**: *bfw_mp_func_demand()*

Bibliography

The MathWorks Inc (2021). *MATLAB*. Matlab package version 2021b.

Xie, Y. (2020). *bookdown: Authoring Books and Technical Documents with R Markdown*. R package version 0.18.