## Readme for "The Impact of Unemployment Insurance and Unsecured Credit on Business Cycles" by Michael Irwin

This file contains the steps necessary to reproduce the results in the tables and figures in the main text of the paper. The computational model used in the paper is solved using Intel Fortran and Microsoft Visual Studio. Additional notes are included in the files used to solve the model and generate the results.

**Tables**:

- Tables 1 and 3: Open the BCI solution in the folder BCI JPEM. Set the scenario to 1, and run the code. The calibration targets and the cyclical moments are in the Quantitative Results file.

- Table 4: Using the BCI solution in the folder BCI JPEM, run scenarios 1, 2, 3, 4, and 13. The cyclical moments are the in the Quantitative Results file.

- Tables 5 and 7: Using the BCI solution in the folder BCI JPEM, run scenarios 1, 5, 6, 7, 8, 9, 10, and 11. The time series for consumption is in Simulation Results 1 and the time series for credit balances is in Simulation Results 2. The variable for the state of the economy is in the file titled Exogenous Fluctuations. Upload these variables into Matlab, and run the file titled Agg Fluctuations.m

- Table 6: Use the BCI SS solution in the folder titled BCI SS. Run scenarios 1, 2, 6, 8, 9, 11, 13, 14. Aggregate consumption is in the file titled Results SS.

**Figures**:

- Figure 2: Solve scenario 1 in the BCI solution in the folder BCI JPEM. The change in variables after a job separation are in the Quantitative Results file. To generate the figure, input the results into the excel file titled Results - Individual Simulation.

- Figure 3: Using the BCI solution in the folder BCI JPEM, run scenarios 1, 2, 3, and 4. The results for aggregate debt balances and average borrowing limits are in the files titled Simulation Results 2 and Simulation Results 4. To reproduce figure 3, input the results into the excel sheet titled Results - Aggregate Series.

- Figure 4: Using the BCI solution in the folder BCI JPEM, run scenarios 1, 5, 6, 7, 8, 9. The Value functions are saved in the file titled Welfare Results. To reproduce the figure, input the results into the excel sheet titled Welfare Results - Credit Experiments.

- Figure 5: Using the BCI solution in the folder BCI SS, run scenarios 1, 2, 6, 8, 9, 11, 13, and 14. To reproduce the figure, input the welfare results into the excel sheet titled Welfare Results - Deterministic SS.

- Figure 6: Using the BCI solution in the folder BCI JPEM, run scenarios 1, 5, and 6. The results are in the files titles Simulation Results 2 and Simulation Results 4. To reproduce the figure, input the results into the excel sheet titled Results - Aggregate Series.