# README for Codes for "Solving discrete time heterogeneous agent models with aggregate risk and many idiosyncratic states by perturbation" by Christian Bayer and Ralph Luetticke

# Software requirements

Matlab code runs on Linux (18.04.01 Ubuntu) with Matlab R2018b. Minimum required Matlab version is R2018b.

Atom code runs on Linux (18.04.01 Ubuntu).

# Public code

The folder public\_code contains all code to reproduce the model results in the paper. The code runs on Linux (relative paths are in Linux format). The code runs on either the Matlab Desktop version or by running 'matlab –nodesktop < run.m' in the terminal.

Run the script run.m in the folder "Krusell Smith Lab" to reproduce tables 1, 2, 4, 8 and figures 1, 2, 3, 4, 5, 6, 8 in the paper. You can find the figures and tables in the folder "results".

Run the script run.jl and run\_rbc.jl and HANKvsKS\_plot.m in the folder "HANK Lab" to reproduce tables 6, 7, 8 and figures 7, 8 in the paper. You can find the figures and tables in the folder "results".

# List of Figures and Codes to Produce Them

#### Main text

Figure 1	/public_code/Krusell Smith Lab/run.m
Figure 2	/public_code/Krusell Smith Lab/run.m
Figure 3	/public_code/Krusell Smith Lab/run.m
Figure 4	/public_code/Krusell Smith Lab/run.m
Figure 5	/public_code/Krusell Smith Lab/run.m
Figure 6	/public_code/Krusell Smith Lab/run.m
Figure 7	/public_code/HANK_Lab/ HANKvsKS_plot.m

Table 1	/public_code/Krusell Smith Lab/run.m
Table 2	/public code/Krusell Smith Lab/run.m
Table 3	N\A
Table 4	/public code/Krusell Smith Lab/run.m
Table 5	N\A
Table 6	/public code/HANK Lab/run rbc.jl
Table 7	/public code/HANK Lab/run.jl
Table 8	/public code/HANK Lab/run.jl

### Appendix

Figure 8	/public_code/Krusell Smith Lab/run.m

Table 10	/public_code/Krusell Smith Lab/run.m
Table 2	Model: values in struct "target" in SS_BASELINE.mat
	Data: /public empirics/appendix/run.m