

Description of the codes to solve the model with financial intermediaries

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Here we provide a description of the codes, in order to understand the codes please read the numerical appendix in the paper. The only difference with the codes in the case of Krusell Smith is that we also consider the possibility of parallelization. This requires introducing a new script `b5_use_parallel.m` to verify whether parallelization is possible, both in terms of licence and memory space, and to separate the simulation of the dynamics of the distribution in `b5_KFE.m` to a new function `f8_KFE_sim.m`.

As a first guess of the algorithm we employ the solution of the model using a linear regression to generate the PLM. The codes to generate such a guess can be found in the subfolder `model_LR`.

Name	Description
<code>a2_launch.m</code>	Launches the program
<code>b1_parameters.m</code>	Stores all the parameters of the model
<code>b2_Klm.m</code>	Runs the main loop
<code>b3_HJB.m</code>	Solves the HJB equation
<code>b5_KFE.m</code>	Solves the KF equation
<code>b5_use_parallel.m</code>	Checks whether there is a parallel Toolbox licence with at least 12GB of RAM.
<code>b7_PLM.m</code>	Updates the PLM using a neural network
<code>b7_PLM_iter.m</code>	Subroutine of <code>b7_PLM.m</code> in charge of running the line search
<code>b9_plot.m</code>	Creates basic plots to assess convergence and performance
<code>f1_NN_loss.m</code>	Computes the loss function $E(\theta)$ of the neural network
<code>f2_NN_eval.m</code>	Evaluates the output of the neural network $h(K, Z)$ for a given set of data
<code>f5_NN_gradient.m</code>	Computes the gradient $\nabla E(\theta)$ of the neural network
<code>f8_KFE_sim.m</code>	Simulates the dynamics of the distribution using the KF