Solving Heterogeneous Agent Models and Transitions

Computations and Quantitative Models in Macro

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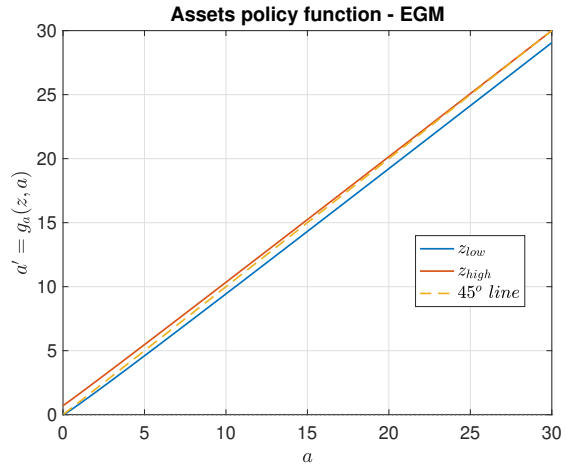
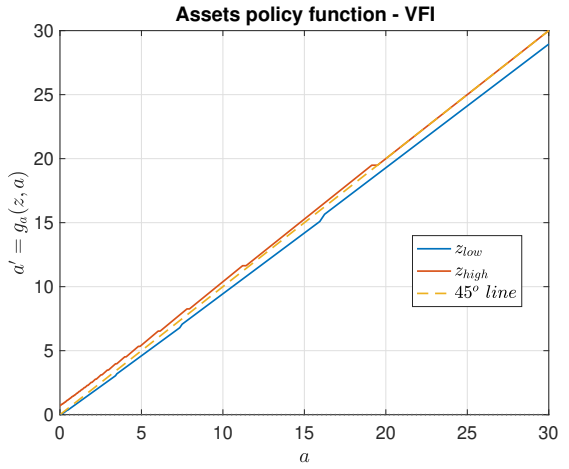
Some details on the computation

- I chose $n_{aa} = 200$ grid points for the assets. Moreover $a \in [0, 30]$.
- The tolerance criterion was chosen as $1e^{-6}$.
- The number of grid points for interpolation (for instance, for obtaining the Euler equation errors) was $n_{aa} = 500$.

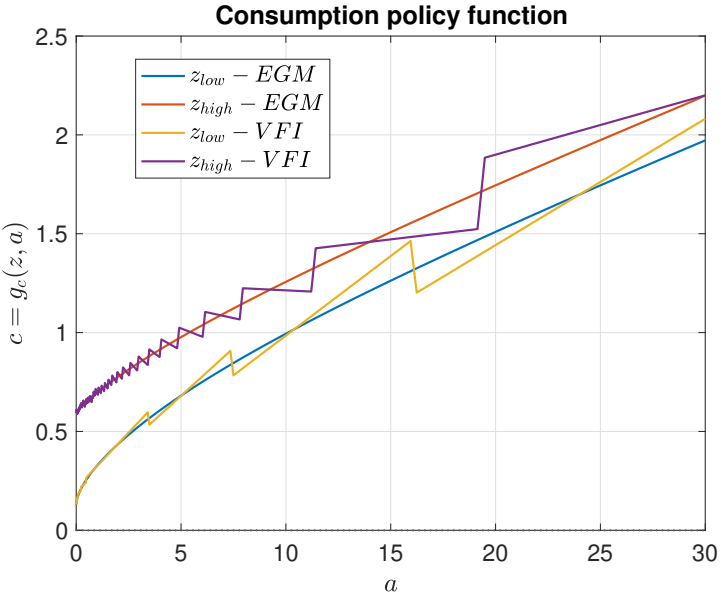
Codes can be found here: 

Assets policy function, $a'(z, a)$

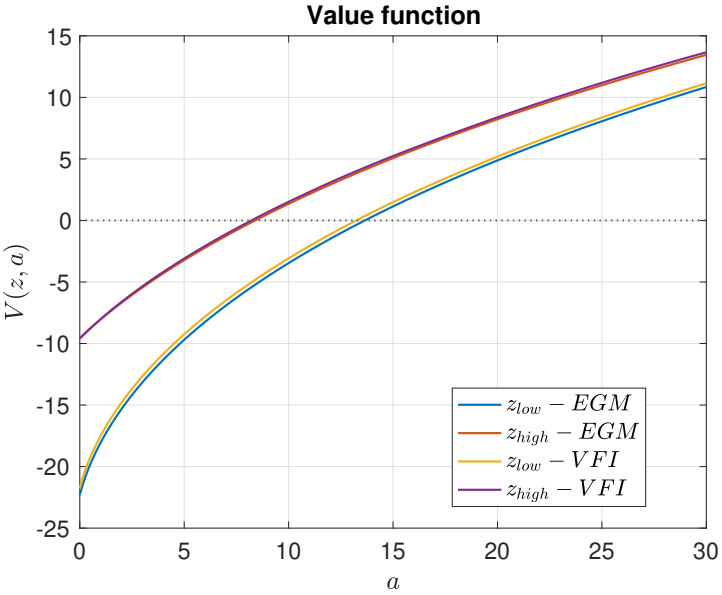




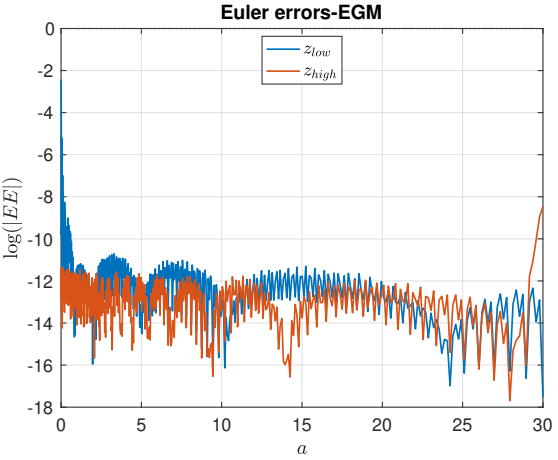
Consumption policy function, $c(z, a)$

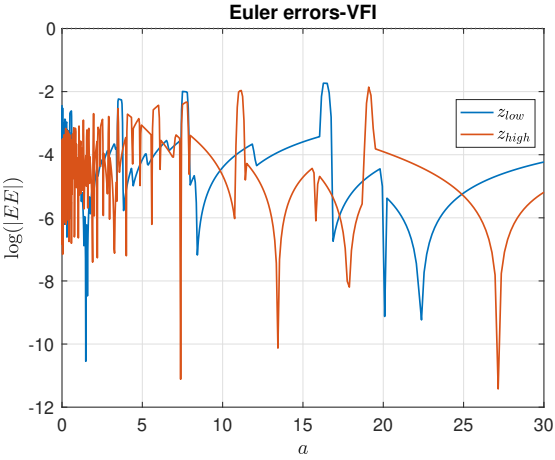


Value functions, $V(z, a)$



Euler equation errors, $\log(|EE|)$



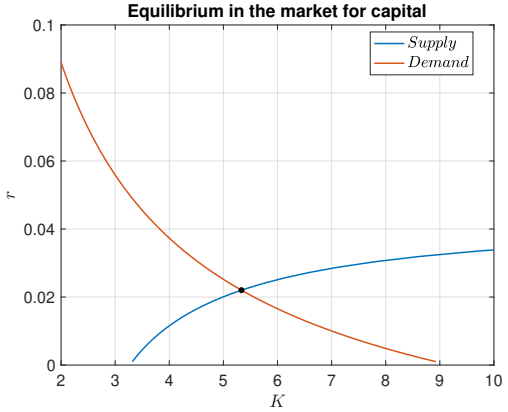


abs(EE)	Max	Mean
Z_{low}	-2.4238	-12.1044
Z_{high}	-8.4572	-13.0120

abs(EE)	Max	Mean
Z_{low}	-1.7334	-4.4117
Z_{high}	-1.8573	-4.3828

Equilibrium values

Method	r	w	L	K	Y
VFI	0.0221	1.4174	0.55	5.3274	1.1636
EGM	0.0220	1.4179	0.55	5.3331	1.1640



Histogram of assets