# Solving Heterogeneous Agent Models and Transitions

Computations and Quantitative Models in Macro

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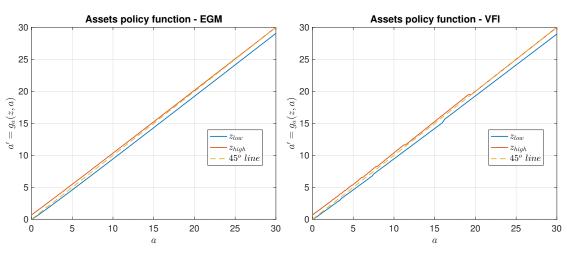
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#### Some details on the computation

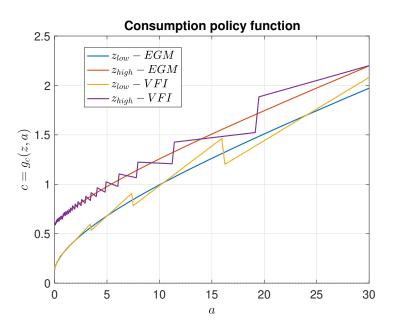
- ▶ I chose  $n_{aa} = 200$  grid points for the assets. Moreover  $a \in [0, 30]$ .
- The tolerance criterion was chosen as  $1e^{-6}$ .
- The number of grid points for interpolation (for instance, for obtaining the Euler equation errors) was  $n_{qq} = 500$ .



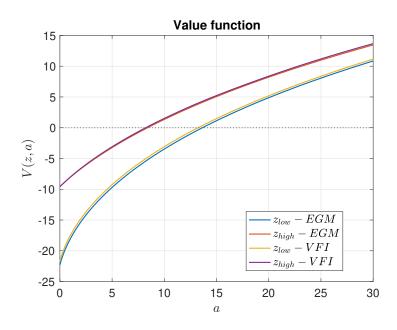
## Assets policy function, a'(z, a)



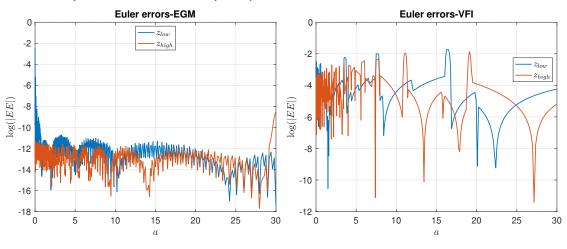
#### Consumption policy function, c(z, a)



#### Value functions, V(z, a)



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

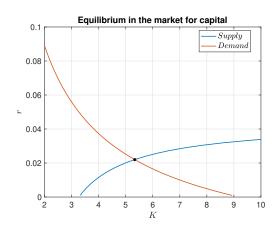


| $\log(abs(EE))$   | Max     | Mean     |  |
|-------------------|---------|----------|--|
| Z <sub>low</sub>  | -2.4238 | -12.1044 |  |
| Z <sub>high</sub> | -8.4572 | -13.0120 |  |

| log(abs(EE))      | Max     | Mean    |  |
|-------------------|---------|---------|--|
| Z <sub>low</sub>  | -1.7334 | -4.4117 |  |
| Z <sub>high</sub> | -1.8573 | -4.3828 |  |

### **Equilibrium values**

| Method | r      | W      | L    | K      | Υ      |
|--------|--------|--------|------|--------|--------|
| VFI    | 0.0221 | 1.4174 | O.55 | 5.3274 | 1.1636 |
| EGM    | 0.0220 | 1.4179 | O.55 | 5.3331 | 1.1640 |



#### Histogram of assets

