

# Model of Capitalist Economy under scrutiny: wealth inequality response to parameters

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We analyze economic inequality in an agent-based model of the capitalist economy called the *Social Architecture of Capitalism*, introduced by Ian Wright [1]. The model contemplates three types of agents: capitalists, workers, and the unemployed. Starting with all agents unemployed and with an egalitarian initial distribution of money, with a few simple stochastic rules of money exchange, the system self-organizes, after a transient, into two economical classes (capitalists and workers/unemployed), separated by wealth range. This way the model reproduces the statistics of many relevant macroeconomic quantities from real economies around the world, for example, the Pareto-Gibbs regimes of income and wealth distributions. We conduct extensive simulations to test the role of the model parameters (total wealth, number of agents, and wage range) in the resulting distribution of income and wealth, the social distribution of agents, and other aspects of the dynamics, such as the average time an agent belongs to each class.

## References

- [1] I. Wright, The social architecture of capitalism, *Physica A* **346**, 589 (2005).

## Type

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