

1116-60-1757

Cameron Bruggeman* (bruggeman@math.columbia.edu). *Dynamics of Large, Rank Based Models.*

We consider a model of n companies whose capitalizations evolve according to dynamics depending only on the companies rank in the market (so big companies behave differently than small ones). In the limit as n gets large, it is shown that the overall distribution of capital converges to a deterministic constant, and that the dynamics of a single firm can be written down explicitly, and studied independently of the rest of the market. (Received September 21, 2015)