

# Social Learning in Regime Change Games

Chong Huang\*

June 2, 2010

---

\*Contact information: [hchong@sas.upenn.edu](mailto:hchong@sas.upenn.edu). I am grateful to George Mailath for invaluable guidance in this project and numerous suggestions. I thank Andrew Postlewaite for great comments that improved the paper. I also thank David Dillenberger, Hanming Fang, Itay Goldstein, Qingmin Liu, Steven Matthews, Muhamet Yildiz and micro lunch seminar participants at Upenn for helpful comments. All errors are mine.

# Social Learning in Regime Change Games

## Abstract

This paper studies social learning effects in dynamic regime change games with a finite number of short-lived players in each period. These kinds of games are usually applied to currency attacks by hedge funds, investments in emerging firms by venture capitalists, and revolutions against dictators by armies. In my model, the state of the status quo is fixed but unobservable to players. Since each short-lived player can only observe one signal about the true state, no individual can privately learn the true state of the status quo. However, I allow players to observe previous play, so the true state may be socially learned. I describe equilibrium dynamics of attacking and relate the state of the status quo to the likelihood of the regime's eventual fate. This model, in which private learning is impossible, yields equilibrium properties that differ from the results of models in the literature, in which private learning is allowed. First, players may give up attacking even though they don't learn the true state, because extremely informative signals may be ignored when cooperation is required. Secondly, fundamentals may not determine the eventual fate of the regime, as signals from early periods are important. Third, social learning may lead to either efficiency or inefficiency depending on the state of the status quo.