Accepted Manuscript

Endogenous network formation in a Tullock contest

G. Grandjean, D. Tellone, W. Vergote

PII: S0165-4896(16)30141-X
DOI: http://dx.doi.org/10.1016/j.mathsocsci.2016.10.011
Reference: MATSOC 1907

To appear in: *Mathematical Social Sciences*

Received date: 11 April 2016
Revised date: 26 October 2016
Accepted date: 31 October 2016

Please cite this article as: Grandjean, G., Tellone, D., Vergote, W., Endogenous network formation in a Tullock contest. *Mathematical Social Sciences* (2016), http://dx.doi.org/10.1016/j.mathsocsci.2016.10.011

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Endogenous Network Formation in a Tullock Contest

G. Grandjean[a], D. Tellone[b], W. Vergote[a,c,*]

[a] *CEREC, Université Saint-Louis Bruxelles, Brussels, Belgium.*
[b] *DISFIPEQ, Università degli studi "G. d'Annunzio", Pescara, Italy.*
[c] *CORE, Université Catholique de Louvain, Louvain-la-Neuve, Belgium.*

Abstract

We propose a model of network formation in a Tullock contest. Agents first form their partnerships and then choose their investment in the contest. While a link improves the strength of an agent, it also improves the position of her rival. It is thus not obvious that they decide to cooperate. We characterize all pairwise equilibrium networks and find that the network formation process can act as a barrier to entry to the contest. We then analyze the impact of network formation on total surplus and find that a social planner can increase total surplus by creating more asymmetry between agents, as long as this does not reduce the number of participating agents. We show that barriers to entry may either hurt total surplus, as the winner of the prize does not exploit all the possible network benefits, or improve total surplus since less rent is dissipated when competition becomes less fierce. Finally, when networking acts as an endogenous barrier to entry, no pairwise equilibrium network is efficient.

Keywords: Network Formation, Tullock Contest, Participation Constraints, Efficiency
JEL Classification: D72, D85.

Highlights:

- Network formation in a Tullock contest with endogenous participation constraints.
- Pairwise equilibria have a dominant group structure, characterizing entry barriers.
- Endogenous entry barriers may improve total surplus.
- When networking acts as a barrier to entry, no pairwise equilibrium is efficient.
- When agents always participate, efficient networks are nested-split graphs.

*Corresponding author.
Email addresses: grandjean@fusl.ac.be (G. Grandjean), daniela.tellone@unich.it (D. Tellone), vergote@fusl.ac.be (W. Vergote)

Download English Version:

https://daneshyari.com/en/article/5102159

Download Persian Version:

https://daneshyari.com/article/5102159

Daneshyari.com