

Strategic optimization in R&D Investment

B. OLIVEIRA

FNAUP - UP & LIAAD-INESC TEC Porto Lab

E-mail address: bmpmo@fcna.up.pt

We use d'Aspremont and Jacquemin's strategic optimal R&D investment in a duopoly Cournot competition model to construct myopic optimal discrete and continuous R&D dynamics. We show that for some high initial production costs, the success or failure of a firm is very sensitive to small variations in its initial R&D investment strategies.

References

- [1] C. d'Aspremont and A. Jacquemin, *Cooperative and noncooperative R&D in duopoly with spillovers*, *American Economic Review* **78** (1988), 1133–1137 (Erratum: *American Economic Review* **80**, 641—642).
- [2] J. A. Brander and B. J. Spencer, *Strategic commitment with R&D: the symmetric case*, *The Bell Journal of Economics* **14** (1983), 225–235.
- [3] M. Ferreira, I.F. Figueiredo, B.M.P.M. Oliveira and A.A. Pinto, *Strategic optimization in R&D Investment*, *Optimization* **5** (Accepted, 2011).