

COURNOT EQUILIBRIUM IN A MODEL OF HARDWARE AND SOFTWARE MANUFACTURERS' INTERACTION

Author **Vladimir I. Soloviev**

N/A

Author **Natalia A. Iliina**

N/A

Author **Marina V. Samoyavcheva**

N/A

Abstract:

A model of interaction between hardware vendors, Intel and AMD, and developers of Windows and Linux operating systems is suggested. Intel and AMD both maximize profits forming a traditional oligopoly, while Microsoft and the community of Linux developers form a mixed duopoly, in which only the first party maximizes its profit. We consider a Cournot situation, when each of the profit-maximizing suppliers sets the price based on available market information on other players' products prices in the previous time moment, and assuming the cross-price elasticities to zero. At the Cournot equilibrium, an Intel-based PC running Windows is 5 times more expensive than AMD-based PC running Linux; an Intel CPU costs 2 times more than AMD processor; Windows license is 1,5 times more expensive than Intel processor; and the profit of Intel is 4 times greater than the profit of AMD, while Microsoft has just 12,5% greater profit than Intel.

Keywords: complementors, complements, co-opetition, Cournot equilibrium, pricing.

JEL codes: C72, D43, K21, L13, L15, M21