

# Research of collusion, competition and the optimal control policy

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## Abstract

This paper takes the output game model of an open system to probe into the drawing up of the behavior strategies of oligopoly firms and the optimal control policy. This paper shows: there are 7 models of the behavior strategy choosing between oligopoly firms, and in which the Cartel model formed by the totally collusion of domestic and foreign firms is the optimal strategy for firms. And in the same time, intending to raise the social welfare standard, there are 2 control policies, which the government can choose from, and the collocation policy of interest and subsidy is the optimal policy.

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**Keywords:** *Game, collusion strategy, control policy.*