Application of conjoined input-output models for investment project evaluation: the economic efficiency approach

Topic: Productivity and efficiency and economic growth

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This paper aims at extending the framework of financial analysis to a microeconomic level of investment project in order to better fit the multilevel input-output interregional results of project implementation. Such approach is necessary for the innovative and infrastructural projects which are characterized by the gap between financial and economic efficiency and the appropriate mechanism of realization on the principles of the public- private partnership. As a tool of the evaluation of the efficiency, a modeling system is used. It consists of multi-period input-output simulation model of investment project and modified input-output inter-regional model of economic interactions which is expanded by inclusion of a technological vector of the investment project. These methods are applied in experimental calculations to the updated small-sized version of input-output inter-regional model conjoined with simulation model of four conditional projects and a complex of eight real innovative projects of the Siberian Branch of the Russian Academy of Science.

Keywords: input-output modelling, investment project, economic efficiency