How to forecast the future input-output table? -An approach based on historical table series

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Since it is necessary to take much time and resources for compiling an input-output table, there inevitably exists time lag in all the finished tables, which has greatly weakened the analysis and application function of input-output table. When using the direct consumption coefficients of years ago to analyze the present even forecast the future economic activities, it is obvious that the results will be distorted. Though the development of techniques of adjusting input coefficient such as RAS and its extension methods have relieved disadvantage of time lag to some extent, yet this kind of methods still have many limits and is inapplicable to predictive problem. This paper focuses on the problem of how to forecasting the future input-output table. Since input-output table has been balanced and there are some constraints in the rows and columns, which causes that cells in the table are not dependent each other, if we forecast the cells directly so as to obtain the future table by assembling these predicted cells, the balance in the table is nearly not assured. Hence, keeping the internal constraints of the table is the key problem of forecasting the future tables. Consider internal constraints of the table, a new approach based on the table series will be proposed in the paper, which can effectively solve the problem of forecasting the future input-output table.