

## **Inter-industry Analysis in Flow of funds Accounts: Policy Evaluations and Computational Simulations**

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This paper aims to analyze inter-industries from the viewpoint of the flow-of-funds accounts and evaluate the effectiveness of monetary policy, including a unique computer simulation. The flow-of-funds accounts show the interrelations between all institutional sectors for each nation, to include overseas sectors, in a systematic and coherent way. It adopts a quadruple-entry system which was proposed by Copeland (1952), that each transaction is recorded with a double entry. In this analysis, we will adopt the input-output analysis method devised by Tsujimura and Mizoshita (2003) to the flow-of-funds accounts. Applying the input-output analysis method into Asset-Liability matrix (ALM) derived from the flow-of-funds accounts, the financial transactions table of institutional sector-by-institutional sector is obtained. Moreover, it is possible to calculate the induced effects of monetary operations by application of Leontief inverse.

However, it is not easy to make a linkage between the input-output table and flow-of-funds accounts. The input-output table, which demonstrates production in the real economy, is composed of hundreds of industries, for examples, in Japan and Korea. On the other hand, only two kinds of institutional sectors, the data of non-financial public corporations and non-financial private corporations, are announced for the flow-of-funds accounts. Based on the combined use of balance sheets and income statements of various industries, the financial transactions table which is subdivided into various inter-industries is constructed. Using this expanded financial transactions table, we report the results of the monetary policy evaluations. Furthermore, computational method approach is examined for this analysis. The policy authorities are required to choose financial instruments in liabilities and assets simultaneously, when they implement any type of monetary policy. This study offers a unique computational approach to analyze and simulate the optimal monetary policy.