

## **Revisiting the Sequential Interindustry Model (SIM): Linkages and Inventory**

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Economic analysis of unscheduled events or shocks, such as disasters and industrial accidents, has long faced a challenge to incorporate with the physical damage or disruption data of the event as the input data. Because of the differences in aggregation level, especially in terms of space and time, between the physical data and economic models, the sensitivity of the event, damages, or disruptions is often lost in the economic analysis. In order to make economic models more compatible with the physical data, a range of innovations in modeling scheme have been proposed, such as economic-engineering integrative models (see the examples in Okuyama and Chang, 2004). In this paper, the attention is directed toward the modification of economic model, namely the Sequential Interindustry Model (SIM) based on a conventional Input-Output Model, focusing particularly on the role of inventory in production process, as a risk management mechanism, under unscheduled events. The SIM model is also investigated through linkage analysis, which reveals temporal linkages among industrial sectors.