

Implementing a Reconciliation and Balancing Model in the U.S. Industry Accounts

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Abstract

As part of the U.S. Bureau of Economic Analysis' integration initiative (Yuskavage, 2000; Moyer et al., 2004a, 2004b; Lawson et al., 2006), the Industry Accounts Directorate is drawing upon the Stone method (Stone et al., 1942) and Chen (2006) to reconcile the gross operating surplus component of value-added from the 2002 expenditure-based benchmark input-output accounts and the 2002 income-based gross domestic product-by-industry accounts. The objective of the reconciliation is to use information regarding the relative reliabilities of underlying data in both the benchmark input-output use table and the gross domestic product-by-industry accounts in a balanced input-output framework in order to improve intermediate input estimates and gross operating surplus estimates in both accounts. Given a balanced input-output framework, the Stone method also provides a tool for balancing the benchmark use table.

This paper presents work by the Industry Accounts Directorate to develop and implement the reconciliation and balancing model. The paper provides overviews of the benchmark use table and gross domestic product-by-industry accounts, including features of external source data and adjustment methodologies that are relevant for the reconciliation. In addition, the paper presents the empirical model that the Industry Accounts Directorate is building and briefly describes the technology used to solve the model. Preliminary work during development of the model shows that reconciling and balancing a large system with disaggregated data is computationally feasible and efficient in pursuit of an economically accurate and reliable benchmark use table and gross domestic product-by-industry accounts.