The Switch to NAICS

Measuring economic activity when the composition and quality of goods and services being produced is rapidly changing presents a perpetual challenge. Accordingly, U.S. statistical agencies periodically adopt new methods or sources for measuring economic activity. Recent changes include the switch from fixed-weighted price indexes to chain-weighted indexes in the National Income and Product Accounts (NIPA) in January 1996 and the classification of software as a final good (fixed investment) into the NIPAs in October 1999.

U.S. data are currently undergoing another sweeping change with the switch to the new North American Industry Classification System (NAICS), which replaces the old Standard Industrial Classification (SIC) system. According to the U.S. Census Bureau:

New NAICS industries catalog the many ways our economy has changed. Some recognize “high-tech” developments such as fiber optic cable manufacturing, cellular telecommunications, and computer software reproduction. Some reflect new business, like paging and environmental consulting. Still others account for changes in the way business is done, like bed-and-breakfast inns, warehouse clubs, telemarketing bureaus, and credit card issuance.1

The key difference between the NAICS and the SIC system is the organizing principle of the data collection process. Under the SIC methodology, which remained largely unchanged since its inception in the 1930s, the data were organized principally to measure output, employment, prices, and productivity in the manufacturing sector. But with the rise of new services industries, manufacturing output has become a proportionately smaller share of total output. Another problem is that establishments with very different production processes might be grouped together. For example, firms providing certain services to a manufacturer would be classified as manufacturing. Under NAICS, only firms with identical or similar production processes are lumped together.

The transition to the NAICS, which will occur in stages, will affect virtually all nonfinancial data used by economists and forecasters. For example, the Federal Reserve Board will start reporting measures of industrial production and capacity on an NAICS basis later this year or early next year, while the Bureau of Labor Statistics (BLS) will begin reporting the monthly employment statistics and producer price indexes on an NAICS basis in 2003 and 2004, respectively. But perhaps the most complicated, and potentially nettlesome transition, will occur with the NIPAs.

According to the Bureau of Economic Analysis (BEA), NAICS will not be fully implemented into the NIPAs until 2003. This process got underway in July 2001, when the BEA classified detailed inventory estimates on a NAICS basis; the aggregate values did not change. Converting industry estimates of output will take a little longer. Moreover, because some industry source data will be reported to the BEA on a NAICS basis, the BEA will need to convert all data back to an SIC basis during the transition. Another potential complication is the discontinuities that arise with breaks in the series. At present, data using the NAICS methodology only extend back to January 1992. Prior to that, data will still be based on the old SIC system.

This data splicing presents a potential problem for economists and other analysts accustomed to using long time series of this data. In all likelihood, though, the problems will most often arise when looking at disaggregated data, since substantial reclassification of firms will occur. But these types of problems have occurred before. For example, the BEA’s gross industry output for 1977 to 1987 uses SIC 1972 industry benchmarks, while data for 1987 to 1999 use SIC 1987 benchmarks.

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Views expressed do not necessarily reflect official positions of the Federal Reserve System