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Income Framework***

Reconciling Micro and Macro Estimates of Dwelling Services in the U.S.

by

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Within countries and cross-nationally there has been an increasing demand for better coherence between and within macro and micro statistics. Differences between macro and micro statistics can be reduced with increased harmonization of the methods used to produce these statistics. The purpose of this paper is to examine and link the approaches that have been used for macro and micro estimates of dwelling services in the U.S. These are reviewed with respect to work conducted in Europe and other areas of the world.

Dwelling services are produced from the stock of housing for consumption. Market rents are a good approximation of the value of dwelling services for most rental housing. However, some households do not pay a market price for the accommodation that is consumed. These include households living in subsidized rental or rent-controlled units, and households living in owner-occupied dwellings. In the past few years, there has been increased research on this topic. In Europe, this research has been in response to European Communities Commission Directives (89/130/EEC and 95/309/EC) specifying the principles for estimating dwelling services for the purpose of harmonized national product accounts. Other macro work has been in response to Eurostat's Harmonized Index of Consumer Prices (HICP) project. Approaches used to account for owner-occupied housing in price indexes have been the focus of several meetings including an ILO meeting (November 2003), CRIW Conference on Price Index Concepts and Measurement (July 2004), Ottawa Group meeting (May 2006), and OECD-IMF Workshop (November 2006). At the micro level, in 2003 the ILO issued a report *Report II: Household Income and Expenditures Statistics*. This report provides international guidelines on household expenditures and income statistics including guidelines for dwelling services. The ILO Report emphasizes consistency with the System of National Accounts.

Perhaps the most coordinated work at the micro level on imputed rents is being conducted in Europe under the auspices of AIM-AP (Accurate Income Measurement for the Assessment of Public Policies) in which the Household Budget Survey (HBS) and EU- Survey of Income and Living Conditions (SILC) data are used. In May 2006, Eurostat convened a meeting of the Working Group on Living Conditions to discuss imputed rent for the HBS and EU- SILC. Since

2006, when the European Commission began funding the program, numerous papers for various countries have been generated in which methods to impute rent for non-market dwellings are presented.

Research linking macro and micro statistics of dwelling services is in its infancy in the U.S. Aggregate imputed gross and net rents for owner-occupied housing have been estimated for the National Accounts. In the mid-1980s, imputed rents began to be used in the U.S. Consumer Price Index (CPI) for owner-occupied housing. More recently, CPI research with the Bureau of Labor Statistics has focused on the differences in rents and user costs with implications for price indexes. An examination of imputed rents for economic well-being analysis has more recently been conducted by the Census Bureau and Bureau of Labor Statistics. In the proposed paper, the treatment of housing in the macro statistics of the National Accounts and in the micro statistics of household expenditure and income surveys will be presented. The paper will include discussion of the methodologies used to measure housing services and consumption, expenses, and income. Two approaches to value dwelling services to be compared are rental equivalence and user costs. Estimates will be produced using data from the U.S. Consumer Expenditure Survey, Current Population Survey, and American Housing Survey –all household surveys. Implicit net rental income from owner-occupied housing will also be produced. Comparisons will be made to aggregate values in the National Accounts with a discussion of possible sources of differences in the macro- and micro-based aggregates. The effects on income inequality will be examined. The findings of this study will be compared to those being generated via the AIM-AP project in Europe.

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