

## **Abstract**

### **SPARSE DATA AND COMMERCIAL PROPERTY PRICE INDEXES**

Mick Silver\* and Brian Graf  
International Monetary Fund  
Washington DC, US  
Corresponding author's email: msilver@imf.org

Both appraisals of the value of properties and transaction prices are used as the underlying database used for the measurement of commercial property price indexes (CPPIs). The former is based on judgment and may smooth and lag transaction prices. The latter is based on actual transactions and may have sample selectivity bias and limited sample sizes for heterogeneous properties. In principle, actual transaction prices are preferred, but their inherent problem of sparse data on heterogeneous properties limits their use in practice. We examine such issues using counts information on granular CPPIs for the United States (US).

Keywords: Commercial Property Inflation; Appraisal Indexes; Transaction Indexes; Weighted Least Squares.