

What Accounts for the Stability and Resilience of Property Tax Systems?

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In this paper I empirically examine the stability and resilience properties of state and local property tax systems in the United States over the past forty-five years. This is accomplished in two major sections of the paper. First, estimation of state and local property tax system resiliency is accomplished by estimating a variety of panel data methods. The analysis begins with estimation of Dynamic Ordinary Least Squares (DOLS) and Error Correction Model (ECM) models of property tax revenue as a function of state GDP. In addition, models are estimated using Mean Group (MG) and Pooled Mean Group (PMG) estimators designed specifically for estimating long-run relationships from dynamic heterogeneous panels. These estimators have not been employed in the public finance literature to date and are ideally suited to the heterogenous experience of the fifty states. The key issue of interest in this section of the paper is to determine how responsive property tax revenues are to economic fluctuations.

By estimating the relationship between fluctuations in state gross domestic product (GDP) and fluctuations in tax revenue we can observe the stability and resilience properties of each state and local tax system. Such estimates are important because they provide insight on how stabilizing or destabilizing the tax systems are in the face of economic fluctuations. When a state is hit with an economic downturn, for example, it is important to know whether the tax revenues will fall more or less proportionately with the reduction in state GDP. In light of the experience with the 2008-2009 recession, in particular, we would like to know how state tax systems performed. We are interested in knowing how resilient tax systems are, not only absorbing an immediate shock from an economic impact, but also how quickly they recover from a shock. The feasibility of these modeling approaches has been established in the literature, and the author has assembled the panel data set using Census of Governments data for the fifty states over the period 1967-2013.

The second section of this paper takes the estimates of property tax system stability and resilience for the fifty states from the first component of the research and empirically determines which characteristics of state and local property tax systems are responsible for greater or less degrees of stability and resilience. Institutional features of property tax systems are explored for their explanatory ability, including assessment standards, reassessment cycles, limitations on assessment increases, tax caps, circuit breakers, and other tax system features. Variation in property tax systems across states and changes in property tax systems over time are used to estimate their effects on measures of stability and resilience. Data for this empirical investigation is obtained from the International Association of Assessing Officers (IAAO) and the Lincoln Institute of Land Policy database Significant Features of the Property Tax.

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