

REAL ESTATE Q

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Nearly three decades ago, Tobin (1969) formulated a theory of investment that relies on the ratio of marginal asset values to replacement costs - Tobin's Q. The Q-ratio appears in the corporate finance literature as a measure of firms' intangible values. Changes in Q as a result of restructurings and other corporate strategic moves indicate shareholder wealth maximizing behaviors. No such applications appear in the real estate literature, although important opportunities exist for applying Q-ratios to determine the intangible value of real estate. As an equilibrium concept the Q-ratio has tremendous potential for analyzing the strengths and weaknesses of markets for investment in existing assets and for analyzing development opportunities.

In common usage, real estate Q is the observed transaction price of the asset relative to its replacement (i.e. development) cost. This application of the ratio raises several concerns. First, observed transaction prices of real estate may not provide an accurate reflection of asset values. Second, when the ratio is applied to evaluate development opportunities, the ratio should be assembled from the value of newly constructed assets to development cost. Using existing sale price to development cost relatives for this purpose yields potentially misleading signals of development opportunities. Third, when the Q-ratio is used to evaluate price appreciation potential in the market for existing asset, the denominator should contain an adjustment to replacement cost for economic depreciation. The commonly reported ratio (i.e., transaction prices to replacement cost) may not indicate the true appreciation potential in the market.

Finally, the reported ratio yields little information about the intangible values of real estate and real estate firms.

This paper begins with a review of the various approaches to the construction of real estate Q. Recommended measures of real estate Q involve applications of hedonic price indexes in the numerator and cost indexes adjusted for economic depreciation in the denominator. Data for lodging properties during the period 1986 through 1994 are introduced to construct Q ratios for three lodging property segments. The analysis of these ratios shows that quite different conclusions may be drawn from alternative definitions of the ratio. Specifically, the recommended ratio indicates that the disequilibrium conditions in the lodging property market were not as severe as they appear using the ratio of transaction prices to replacement cost.

REFERENCES

Tobin, J., "A General Equilibrium Approach to Monetary Theory," *Journal of Money, Credit, and Banking* 1 (November 1969) : 15-27.