Journal of Public Economics
Volume 27, Issue 3, August 1985, Pages 261-280

Corporate finance side of the Q theory of investment

Fumio Hayashi *

https://doi.org/10.1016/0047-2727(85)90051-9

Abstract

This paper presents a model of a firm under uncertainty in which the financial and investment decisions are simultaneously determined. If profits are small relative to investment, the firm finances a constant fraction of incremental investment by debt and the rest by retentions. If profits are large relative to investment, a constant fraction of marginal finance comes from debt and the rest from new shares. In these two financing regimes a one-to-one relationship between optimal investment and Q can be derived. No such relation exists in the third and intermediate regime in which incremental investment is entirely debt-financed.

Previous

Next

Citation Excerpt :

...Given these conditions, the observable average q is equivalent to the theoretically relevant marginal q. Furthermore, average q completely explains investment behavior so no other variables should have a statistically significant relationship with investment activity in a Tobin's q regression. Summers (1981), Hayashi (1982), and Hayashi (1985) apply Tobin's q models to investment expenditures. The first source of bias is classic endogeneity bias that occurs when shocks to R&D activity are also correlated with the explanatory variable so that E[xitvit] ≠ 0....

Show abstract

The effect of oil price volatility on strategic investment

2011, Energy Economics

Citation Excerpt :

...In Eq. (1), It is the firm gross investment, Kt is the firm fixed capital stock, Qt is the marginal q (Q = q – 1) and εt is a random error term. Eq. (1) forms the backbone of many empirical tests of q theory (see for example some of the well-known papers by, Summers (1981); Hayashi (1982, 1985); Fazzari et al. (1988); Blundell et al. (1992); and Hubbard (1998)). Many authors have criticized the usefulness of Q theory on the grounds that there is a discrepancy between the strong theoretical conditions under which Q is derived and the empirical conditions under which the investment Q relation is tested....

Show abstract

Estimating fixed-effect panel stochastic frontier models by model transformation

2010, Journal of Econometrics

Show abstract

Testing Q theory with financing frictions

2007, Journal of Financial Economics

Show abstract

Chapter 65 Microeconometric Models of Investment and Employment

2007, Handbook of Econometrics

Show abstract

View all citing articles on Scopus

* The author wishes to thank Takao Kobayashi and two referees for useful comments. This paper is a substantially revised version of NBER Working paper 1097.

View full text