

Productivity-Based Asset Pricing: Theory and Evidence

ABSTRACT

In a general real business cycle model a pricing kernel is derived that involves only production function arguments. The productivity shock is the single factor with as conditioning variable the capital stock relative to a productivity measure. The model compares favorably with the complementary consumption-based and market-based approaches and with the Fama-French three-factor model. A size premium arises from differences in unconditional sensitivities—small firms are more sensitive to productivity shocks—and a value premium from differences in conditional sensitivities to productivity shocks—growth firms are more sensitive to productivity shocks in states when the productivity risk premium is low.

JEL classification: G12; E44

Keywords: Cross Sectional Asset Pricing; Productivity; Macro Factors; Production-Based Asset Pricing; Conditional Asset Pricing.

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