

Investment and Financing Constraints: Evidence from the Funding of Corporate Pension Plans

JOSHUA D. RAUH*

ABSTRACT

I exploit sharply nonlinear funding rules for defined benefit pension plans in order to identify the dependence of corporate investment on internal financial resources in a large sample. Capital expenditures decline with mandatory contributions to defined benefit pension plans, even when controlling for correlations between the pension funding status itself and the firm's unobserved investment opportunities. The effect is particularly evident among firms that face financing constraints based on observable variables such as credit ratings. Investment also displays strong negative correlations with the part of mandatory contributions resulting solely from unexpected asset market movements.

* Graduate School of Business, University of Chicago. I thank James Poterba, Stew Myers, Jonathan Gruber, Dirk Jenter, Heitor Almeida, Daniel Bergstresser, Mihir Desai, Michael Greenstone, Robin Greenwood, David Scharfstein, Antoinette Schoar, Jeremy Stein, and Amir Sufi for helpful comments and discussions. I would also like to thank Rob Stambaugh (the editor) and the referees. This work benefited greatly from the thoughts of economics seminar participants at MIT, Harvard, Princeton, and the Kennedy School of Government, and of finance seminar participants at the University of Chicago, the University of Pennsylvania (Wharton), Harvard, Stanford, Columbia, NYU (Stern), Dartmouth (Tuck), Michigan (Ross), Boston College (Carroll), Northwestern (Kellogg), Duke (Fuqua), and the 2004 Western Finance Association meetings in Vancouver. I am grateful to the Center for Retirement Research at Boston College and the National Bureau of Economic Research for financial support.