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Measuring Firm Size in Empirical Corporate Finance

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Abstract

In empirical corporate finance, firm size is commonly used as an important, fundamental firm characteristic. However, no research comprehensively assesses the sensitivity of empirical results in corporate finance to different measures of firm size. This paper fills this hole by providing empirical evidence for a "measurement effect" in the "size effect". In particular, we examine the influences of employing different proxies (total assets, total sales, and market capitalization) of firm size in 20 prominent areas in empirical corporate finance research. We highlight several empirical implications. First, in most areas of corporate finance the coefficients of firm size measures are robust in sign and statistical significance. Second, the coefficients on regressors other than firm size often change sign and significance when different size measures are used. Unfortunately, this suggests that some previous studies are not robust to different firm size proxies. Third, the goodness of fit measured by R-squared also varies with different size measures, suggesting that some measures are more relevant than others in different situations. Fourth, different proxies capture different aspects of "firm size", and thus have different implications. Therefore, the choice of size measures needs both theoretical and empirical justification. Finally, our empirical assessment provides guidance to empirical corporate finance researchers who must use firm size measures in their work.

JEL Classifications: G3, G30, G31, G32, G34, G35, C23, C58, J31, J33.

Key Words: Firm size measures; Total assets; Total sales; Market capitalization; Empirical corporate finance.

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