Applied Financial Economics ›
Volume 16, 2006 - Issue 13

Original Articles

What determines the speed of adjustment to the target capital structure?

Wolfgang Drobetz & Gabrielle Wanzenried

Pages 941-958 | Published online: 02 Feb 2007

Cite this article https://doi.org/10.1080/09603100500426358

Abstract

A dynamic adjustment model and panel methodology are used to investigate the determinants of a time varying target capital structure. Because firms may temporarily deviate from their target capital structure in the presence of adjustment costs, the adjustment process is also endogenized. Specifically, we analyse the impact of firm-specific characteristics as well as macroeconomic factors on the speed of adjustment to the target debt ratio. The sample comprises a panel of 90 Swiss firms over the years from 19 are further away fro so reveal interesti siness cycle varia spread is highe

Notes

[1] See Andrés Alonso et al. (2005), for recent evidence.

[2] See also Bhaduri (2002) and Panno (2003).

[3] Consistent with Myers' (1984) pecking order theory, Hovakimian et al. (2001) document that profitability is a predictor of observed debt ratios in the short-run. Nevertheless, firms make financing and repurchase decisions that offset these earnings-driven changes in their capital structure. This supports the static trade-off theory of the capital structure and the existence of a target debt ratio. However, the latter may not be a primary goal of firms' decision-makers (see Panno, 2003; Leary and Roberts, 2004).

[4] Gaud et al. (2005) and Drobetz and Fix (2005) adopt this approach for Swiss data.

[5] See Heshmati (2001) for similar results using a sample of Swedish micro and small firms.

[6] Baker and Wurgler (2002) also document that firms tend to raise equity when their market values are high relative to book and past market values. The resulting effects on capital structure are persistent, suggesting that capital structure is the cumulative outcome of past attempts to time the equity market.

[7] According to Lööf (2003), overadjustment may reflect unanticipated changes in economic conditions.

[8] See Table 3 for a correlation analysis of the respective variables.

[9] However, there is one caveat. In the estimations we observe that the time-specific effects, [illegible] eterminants of adjust[illegible]e (see subsecti[illegible]

[10] Fin[illegible]ut also the time[illegible]on term in Equatio[illegible] comment on this i[illegible]

[11] An alternative to first-difference transformation is the within-transformation that is commonly used in the literature. Although this approach controls for fixed effects, it introduces correlation between the lagged dependent variables and the lagged error term, leading to biased estimates. The magnitude of this bias falls with the number of years in the sample (see Nickel, 1981). However, only ten years of observations are used here and, hence, this problem will not vanish.

[12] Using first differences removes possible firm-specific effects by avoiding any correlation between unobservable firm-specific characteristics and regressor variables. See Verbeek (2004) for a textbook treatment.

[13] See Harris and Raviv (1991 p. 335).

[14] Recently, Fama and French (2002) show how the predictions for book leverage carry over to market leverage. The trade-off theory predicts a negative relationship between leverage and investment opportunities. Since the market value grows at least in proportion with investment outlays, the relation between growth opportunities and market leverage is also negative.

[15] These conflicting results may be due to the fact that growth measures tend to be correlated with tangibility.

[16] Another question is again whether these predictions for book leverage carry over to market leverage (e.g., Fama and French (2002)). The trade-off theory predicts that leverage increases with profitability. Since the market value also increases with profitability, this positive relation does not necessarily apply for market leverage. In contrast, the pecking order theory predicts that firms with a lot of profits and few investments have little debt. Since the market value increases with profitability, the negative relationship between book leverage and profitability also holds for market leverage

[17] Note t ...owever, to avoid th... macr... Z_{it} denotes a ma...

[18] See Ba... ...orrow long when de... ...ot is low.

[19] The evidence is not conclusive yet as to whether managers are in fact successful timers. Baker et al. (2003) report that firms tend to borrow long when excess bond returns are predictably low. Long-term debt issues predict lower excess bond returns, and short-term debt issues predict higher excess bond returns. In contrast, Henderson et al. (2004) only find weak evidence that the aggregate level of the quantity of new debt issued predicts future changes in interest rates.

[20] Drobetz and Fix (2005) look at a larger (balanced) panel of Swiss firm over the shorter period from 1997 to 2001. However, to give a better picture of the adjustment process, which is the main focus of the present analysis, a longer, albeit smaller, sample of firms is used.

[21] In Switzerland this should not be important because pension liabilities need not be expensed in the balance sheet. In contrast to most other continental European countries, pension money is managed in separated entities.

[22] For a more detailed discussion and international comparison of Swiss data see Drobetz and Fix (2005).

[23] Alternatively, total assets could be used, but possibly net sales is a better proxy for size, because many firms attempt to keep their reported size of asset as small as possible, e.g., by using lease contracts.

[24] Note that a sample split-up allows that all the coefficients in the model are different between the two subsamples, whereas a dummy variable approach usually only allows that selected coefficients differ between the subsamples.

[25] Detailed results are available upon requests from the authors.