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Clustering in dividends: Do managers rely on cognitive reference points?

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Abstract

Prior studies (see e.g. [Rosch, E. (1975). Cognitive reference points. *Cognitive Psychology*, 7, 532–547]) indicate that multiples of ten serve as cognitive reference points with a view to perceiving and evaluating numbers. In order to explore whether managers set dividends per share (henceforth DPS) at or just above a cognitive reference point, we perform a digital analysis on US firms' DPS for the period 1995–2004. That is, based on the theory of cognitive reference points, DPS of $2.00 will be viewed as being abnormally larger than DPS of $1.99, whereas the actual difference only amounts to a marginal $0.01. Results presented in this paper indicate that managers fall back on cognitive reference points when they set DPS, which shows in significantly more (fewer) zeroes (large digits) in the second-from-the-left position of DPS than would normally be expected. Overall, results presented in this paper tally with prior findings on odd-ending prices and price clustering documented in related disciplines.

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1. Introduction

Investors have a preference for cash dividends (see e.g. Clark-Murphy & Soutar, 2004; Dong, Robinson, & Veld, 2005) and, based on the theory of cognitive reference points, they tend to rely on multiples of ten to assess the magnitude of DPS paid out by firms. Accordingly, managers might set DPS at or just above a cognitive reference point as an impression management tactic (i.e. in an attempt to make DPS more attractive to investors). Results from a digital analysis on US firms' DPS for the period 1995–2004 reveal significantly more (fewer) zeroes (large digits) in the second-from-the-left position (henceforth second position) of DPS than would normally be expected. In addition, results show that an abnormally large (small) number of firms systematically have a zero (large digit) in the second position of DPS over the sample period. Our results are therefore consistent with managers setting DPS at or just above a cognitive reference point.

The remainder of the paper is organized as follows. A brief review of the literature relevant to the current study is presented in Section 2. In Section 3, we develop our hypothesis and discuss our research methodology. Results are reported in Section 4 and conclusions are presented in Section 5.

2. Literature review

2.1. Investors' preference for dividends

Whereas seminal work by Miller and Modigliani (1958, 1961) posits that dividends are irrelevant[1], a bulk of studies in finance show that investors do have a distinct preference for cash dividends (see e.g. Clark-Murphy & Soutar, 2004; Dong et al., 2005). Importantly, managers take into account the reaction of investors when they determine their dividend policy and, in general, tend to follow a deliberate, conservative and stable dividend policy (Baker, Farrelly, & Edelman, 1985; Baker & Smith, 2006; Brav, Graham, Campbell, & Harvey, 2005).

Several arguments are put forward in the literature to explain the aforementioned preference; including agency costs (see e.g. Black, 1976; Easterbrook, 1984; Jensen, 1968), market imperfections (see e.g. Allen & Michaely, 2002; Bhattacharya, 1979), and behavioural factors (see e.g. Kahneman & Tversky, 1982; Shefrin & Statman, 1984)[2]. In view of the paper's topic, we focus on the role of behavioural factors. Shefrin and Statman (1984) argue that dividends facilitate self-control problems by limiting consumption to the amount of cash available from dividends. In addition, by financing consumption out of dividends, investors avoid regret (Kahneman & Tversky, 1982). Regret is higher if a deliberate action is undertaken than when people failed to undertake an action. Hence, in case of rising stock prices, financing current consumption by selling stock would result

[1] Assuming perfect capital markets and rational investors, a firm's value is determined by its investment and operating behavior. In this framework, shareholder wealth is unaffected by the payout policy of the firm. Higher dividend payouts lead to lower retained earnings and capital gains and vice versa, leaving total wealth of shareholders unchanged. As a consequence, investors are assumed to be indifferent between various dividend policies.

[2] We refer to Lease, John, Kalay, Loewenstein, and Sarig (1999), Allen and Michaely (2002), Frankfurter and Wood (2002), and Dong et al. (2005) for comprehensive literature reviews of dividend policy.