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The value of financial flexibility and corporate financial policy ☆

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ABSTRACT

We propose a novel approach to measure the value that shareholders assign to financial flexibility. In contrast to existing proxies for financial constraints, our measure is market-based, forward-looking and not directly influenced by past financial decisions. We find that firms for which shareholders consider financial flexibility more valuable have lower dividend payouts, prefer share repurchases to dividends, and exhibit lower leverage ratios. Moreover, these firms tend to accumulate more cash. Our analysis contributes to the growing literature on financial flexibility and indicates that—in line with prior survey evidence—financial flexibility considerations shape corporate financial policy.

1. Introduction

Understanding firms' financial decisions is a key challenge in financial economics research. Over the last decades, different approaches such as agency cost or market imperfections have been put forward. However, survey evidence among firms' decision makers indicates that there is another factor that has gained only little attention in the academic literature so far: *financial flexibility*.

In fact, CFOs claim that financial flexibility considerations are of first order importance with respect to firms' financial policy decisions (Brounen et al., 2006; Graham and Harvey, 2001; Pinegar and Wilbricht, 1989). Gamba and Triantis (2008, p. 2263) define *financial flexibility* as "the ability of a firm to access and restructure its financing at a low cost". Adopting that view, there are two channels through which financial flexibility becomes valuable for firms. First, financial flexibility can mitigate underinvestment problems in case of restricted access to capital. Second, it can help to avoid costs associated with financial distress.

One possible reason why empirical evidence in this context is sparse is because the value of financial flexibility for firms is not directly observable. As a consequence, previous empirical literature focused mainly on empirical proxies for a firm's financial constraints.[1] However, these proxies measure the *level*, not the *value* of financial flexibility. The level of financial flexibility is, however, endogenously determined by prior financial decisions. Thus, such proxies cannot help in explaining why some firms choose financial policies

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[1] Measures for financial constraints are, among others, the investment-cash flow sensitivity (Fazzari et al., 1988), the cash–cash flow sensitivity (Almeida et al., 2004), the Kaplan–Zingales Index (Kaplan and Zingales, 1997), and the Whited–Wu Index (Whited and Wu, 2009).

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that result in high or low levels of financial flexibility. Furthermore, these measures are often not forward-looking. This, for instance, may explain the low explanatory power of investment-cash flow sensitivity during the recent financial crisis (e.g., Chen and Chen, 2012).

In this paper, we propose a novel empirical approach to estimate the value of financial flexibility from the perspective of a firm's shareholders. Our measure, which we refer to as the *value of financial flexibility* (VOFF), aggregates empirical proxies of theoretically motivated determinants of the value of financial flexibility into a single measure. Aggregation is done using capital market based, forward-looking weights based on the value-relevance of unexpected changes in cash holding, which we consider the most liquid means of a firm's financial flexibility. Thus, the VOFF approximates the value a firm's shareholders assign to its financial flexibility, not the current level of a firm's financial flexibility. The fact that our measure is market-based and forward-looking separates it from existing proxies in this context. Also, unlike measures based on the level of financial flexibility, the VOFF is not directly influenced by past financial decisions. This allows us to use it in empirical models explaining corporate financial policy. In the context of capital structure, for instance, today's leverage determines a firm's future borrowing capacity and thus its level of financial flexibility. However, the question is why some firms preserve more of their debt capacity than others. One possible explanation is that shareholders assign a higher VOFF to these firms.

To empirically estimate the VOFF and to test its impact on firms' financial policy decisions, we proceed in three steps. *First*, we identify empirical proxies for the five factors that—according to the theoretical model by Gamba and Triantis (2008)—determine the value of financial flexibility. The model of Gamba and Triantis (2008) indicates that besides a firm's growth opportunities and its profitability, the effective costs of holding cash, the cost of external financing, as well as the reversibility of capital determine the value of financial flexibility. Thus, these factors reflect (i) the firm's business model and (ii) its external environment. In contrast, they are independent of the firm's current financial policies.

Second, we combine these five factors into a single measure. To obtain their weights, we adopt the approach proposed by Faulkender and Wang (2006) to determine the *marginal value of cash* and analyze capital market reactions to (unexpected) changes in a firm's cash holdings. As cash is the most flexible financial means for a firm, we expect that this reaction depends on how valuable the shareholders consider financial flexibility for the specific firm. Thus, we regress changes in market capitalization on the five factors that interacted with (unexpected) changes in cash. Using the coefficients from that regression as a weighting-mechanism, we then aggregate the five factors into a single number for each firm year. For example, if firms with high growth opportunities have high (low) positive abnormal returns when cash holdings increase, we would assign a high (low) weight to growth opportunities. Examining US listed firms from 1988 to 2010, we find substantial variation in the VOFF across firms. We then challenge our measure in an event study setting. Specifically, we test whether a firm's stock market return around the default of Lehman Brothers is sensitive to its VOFF. As expected, firms with a high VOFF suffered more from the breakdown of (outside) financing opportunities.

Third, we examine whether financial flexibility considerations help to explain corporate financial policies. Therefore, we augment standard financial policy regressions with our VOFF measure. We find that the VOFF plays a central role for payout, capital structure, and liquidity decisions. In particular, firms with a higher VOFF exhibit (i) a lower propensity to pay dividends and lower dividend payout ratios, (ii) a higher propensity to omit a dividend, (iii) a preference for share repurchases over dividends when cash is distributed to shareholders, (iv) lower leverage ratios, and (v) accumulate more cash. All these results are of high statistical significance and in line with theoretical predictions. Using the Jobs and Growth Tax Relief Reconciliation Act as an exogenous shock regarding a firm's payout policy allows us to provide evidence that causality runs from VOFF to financial policy decision, and not vice versa. Overall, our results thus provide strong empirical evidence that—in line with survey evidence—financial flexibility considerations play an important role for corporate financial policy.

The idea to adopt the *marginal value of cash* measure proposed by Faulkender and Wang (2006) to study corporate behavior is not completely new. Liu and Mauer (2011), for instance, use it to study CEO incentives. Regarding corporate financial policies, Clark (2010) proposes to use the *marginal value of cash* to study corporate capital structure decisions. Specifically, Clark (2010) shows that firms with a high *marginal value of cash* tend to have lower debt levels and—in case they raise external financing—are more likely to issue equity. While this is an important contribution, our approach differs with regard to two important aspects. First, while Clark (2010) relies on the factors proposed by Faulkender and Wang (2006) for the *marginal value of cash* measure to proxy the (*marginal*) *value of financial flexibility*, we propose another measure that relies on theoretically motivated determinants of the value of financial flexibility following Gamba and Triantis (2008). This difference has important implications. Faulkender and Wang (2006) define their *marginal value of cash* as a constant plus a weighted sum of the firm's changes in cash holdings and its leverage. Thus, an approach to study corporate financial policies using the *marginal value of cash* measure is exposed to endogeneity issues.[2] Also, the Faulkender and Wang (2006) measure is a *relative* measure since it is sensitive to the level of cash holdings of a firm. With our approach, which relies on five factors not influenced by current corporate financial policies, we aim to avoid both problems.[3] Second, we extend the analysis towards all three dimensions of corporate financial policies: payout decisions, capital structure decisions, as well

[2] Clark (2010) approaches this problem by using instruments obtained from Frank and Goyal (2009) for a firm's leverage.

[3] It is important to note, however, that while our theoretical arguments refer to the (*absolute*) *value of financial flexibility*, our empirical proxy indeed is a *marginal measure*. More precisely, borrowing from the model of Gamba and Triantis (2008) we argue that the (overall) value that shareholders assign to a firm's financial flexibility is determined by (i) the firm's business model and (ii) its external environment. As such, our measure is firm-specific but independent of the firm's financial policies, which motivates our notion to call it the *value of financial flexibility* in order to separate it from the (with regard to the firm's financial policies) *marginal value of financial flexibility*, which reflects the current financial policy choice. Still, our measure is—by construction—a marginal measure in the sense that it relies on the coefficient estimates based on a marginal increase in cash.