

ICorporate Finance

Course Assignment

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1 Introduction

In order to discuss the articles supplied I feel it would be useful to briefly define the key expressions at this time.

Pecking order Theory: “When [internal funds] are exhausted and there exists a deficit in funds, firms will prefer safer debt to riskier equity. Thus, there exists a financial hierarchy descending from internal funds, to debt, to external equity. Funds are raised through equity issues only after the capacity to issue debt has been exhausted. Firms finance investments first from internal funds, then from debt and only as a last resort from new equity.”¹

Agency Model Theory: “management sometimes peruse their own objectives ... at the expense of the shareholders”²

Timing Model Theory: “firms experience long term underperformance after they issue equity”²

Static Tradeoff Theory: “[T]he firm’s capital structure is determined by a tradeoff between the benefits of tax shields and the costs associated with bankruptcy”³

2 Summary of Articles

2.1 Timing, investment opportunities, managerial discretion and the security issue decision

The focus of the authors with this paper is on why, when, and how firms issue securities to raise capital for investments. The authors analyze the ability of the pecking-order model, agency, and the timing models to explain a firm's financing decision. The paper evaluates the market reaction to financing decisions, and the actions of the firm following an issue.

Results indicate strong support for the agency model and find that two types of firms issue equity. The first, firms with valuable investment opportunities seeking to finance growth and profitability additionally firms without valuable investment opportunities that have debt capacity.

The paper reports that firms without valuable investment opportunities have a greater negative stock price reaction than firms with better investment opportunities.

The authors find that the firms with the most valuable investment opportunities do not experience adverse stock returns following the issue of equity, equity-issuing firms have a higher beta and greater return volatility than debt-issuing firms, and that firms issuing common stock experience significant positive abnormal returns for 11 months prior to the stock issue.

The authors' results do not support the idea that firms time equity issues to take advantage of equity overvaluation.

2.2 Testing static tradeoff against pecking order models of capital structure

This paper looks to prove empirically the basis for firms taking financing decisions is not in order to optimize the firm's capital structure (static tradeoff) but rather by means of the "excellent" pecking order theory (preference of debt financing over issuing equity).

The article's sample results are drawn from 157 mature corporations from S & P's Compustat database. Financial institutions and regulated utilities were excluded, as were firms with gaps in data between 1971 and 1989 and firms involved in mergers. This biased the results towards large firms with conservative debt ratios, because small firms with are more likely to drop out of the sample over the period.

The paper is also limited by its inability to compare firms from different sectors. "A 20% debt - to-assets ratio is low for commercial real estate but high for a high-tech startup. Therefore the simplest version of the pecking order, expressed in Equation 2, cannot be generally correct."¹

The authors acknowledge that the simple pecking order approximations used does not paint a complete picture and admit that a more detailed tradeoff specification may be more

successful citing Jalilvand and Harris (1984), and in Fischer, Heinkel & Zechner (1989) as examples.

The document does highlight papers that offer evidence that firms adjust toward a target debt ratio (Taggart (1977), Marsh (1982), Auerbach (1985), Jalilvand and Harris (1984) and Opler and Titman (1994)).

Overall, the results suggest greater confidence in the pecking order than in the target adjustment (static tradeoff) model. The model for pecking order is capable of rejecting a statistical false hypothesis, whilst the models for static tradeoff do not reject false results.

The paper explains that pecking order allows firms fund unanticipated cash needs with debt in the short run as well allowing them plan to finance anticipated deficits with debt. Also that if the sample companies had projected optimal debt ratios, the management teams considered them to be of minimal importance.

This paper concludes that more astute models are called for. Calling for evaluation of capital structure statistics and the need for tests of suppositions that can be rejected.

2.3 Testing static tradeoff against pecking order models of capital structure: a critical comment

The purpose of this paper is to highlight shortcomings in the previous paper, Shyam-Sunder & Myers (1999), and demonstrate its failures.

The most outstanding oversight from Shyam-Sunder & Myers (1999) is the omission of any consideration of equity in Equation 2. Equity is at the bottom of the pecking order's hierarchy, yet is not included in the key equation to evaluate the statistical data.

$$\Delta D_{it} = a_{PO} + b_{PO}DEF_{it} + e_{it},$$

Equation 2 from Shyam-Sunder & Myers (1999)

Chirinko and Singha highlight the argument made by Myers and Majluf (1984) that the primary driver of pecking order is the inconsistency in the amount of information between the managers and the uninformed outside investors. This leads to the management preferring to raise funds internally until they are exhausted then moving to debt and finally to equity.

The authors draw attention to three circumstances that highlight difficulties that Shyam-Sunder & Myers (1999) Equation 2 has in evaluating the pecking order model.

The first begins with the assumption that the firm follows the hierarchy consistent with pecking order. If equity makes up a substantial percentage of overall external finance then a situation might arise because debt finance becomes relatively costly as a result of changes. Thus, even though the pecking order is employed, the testing strategy proposed by Shyam-Sunder and Myers suggests rejection. Tests based on Equation (2) rely on the joint hypothesis of ordering (the financial hierarchy) and proportions (equity issues constitute a low percentage of external financing). Equation 1 will not highlight a situation where ,

although the proportion of equity finance can be assumed to be low compared to debt, the order external finance is used breaks with the pecking order.

The key problem with Shyam-Sunder and Myers is that their evidence can appraise neither the Pecking Order nor Static Tradeoff Models. Alternative tests are needed that can discriminate among competing hypotheses.

3 Comparison of Empirical Methods

Comparing the methods used by Jung, Kim & Stulz (1996) (J,K&S) and Shyam-Sunder & Myers (1999) (SS&M) the first point to note is the lengths of the periods studied. J,K&S's period covers 8 years whilst the length of SS&M's is more than double, 19 years. Both papers eliminate data on regulated utilities and financial institutions. The authors of both also eliminate firms with incomplete data sets. Although the results from J,K&S may be skewed due to the short period of time the data is employed, the number of issues examined far outstrips the firms examined by SS&M.

Both sets of authors use different sources for their data, SS&M use S&P's Industrial Compustat database whilst J,K&S get data on stock returns from the Center for Research in Security Prices and the Corporate Finance Directory in order to eliminate secondary stock offerings.

Whilst J,K&M use tried and tested formulae to calculate data to draw conclusions from SS&M use questionable formulae in order to yield results.

4 Discussion on the Value of Empirical Findings

From the papers presented for this essay the benefits of empirical research are limited. Assuming a semi strong market there is a greater benefit to the management of the firms than there is to the investors in the market. The empirical research allows the management to predict the response of the market to their decisions, so in that way benefiting the investor. The investor may not find the methods employed in these papers particularly useful in making investment decision, given the criticisms of Chirinko and Singha.

References:

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