

行政院國家科學委員會補助專題研究計畫成果報告

會計資產及資本結構風險資訊內涵: B/S 及 I/S 衡量比較研究

計畫類別： 個別型計畫 整合型計畫

計畫編號：NSC 89 - 2416 - H - 002 - 030

執行期間：88 年 08 月 01 日至 89 年 10 月 31 日

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本成果報告包括以下應繳交之附件：

赴國外出差或研習心得報告一份

赴大陸地區出差或研習心得報告一份

出席國際學術會議心得報告及發表之論文各一份

國際合作研究計畫國外研究報告書一份

執行單位：國立台灣大學

中 華 民 國 89 年 10 月 31 日

中文題目 會計資產及資本結構風險資訊內涵: B/S 及 I/S 衡量比較研究

英文題目 The comparative risk-information content of B/S vs. I/S accounting data: the impact of asset structure and capital structure on risk and ERC

中文摘要

關鍵詞：風險資訊內涵、資本結構、資產結構

本研究係檢視會計資訊(包括資產負債表及損益表)中有關資本結構及資產結構可如何運用於評估企業風險並有助於股價之決定。財務風險與企業財務政策有關，而財務風險即反應該資金來源政策之結果，有關財務風險之會計資訊可透過資產負債表(負債比率)或損益表(如利息費用相關資料)評估，然而，實際上，此兩種不同之財務風險衡量是否有差異，尚未有學者探討。同理，營運槓桿之風險亦可透過資產負債表(如固定資產資訊)或損益表(如固定營業費用)加以評估。因此，本文不僅實證分析會計資訊資本及資產結構之風險內涵，亦提供比較資產負債表及損益表衡量風險之優劣。

英文摘要

The purpose of this study is to examine how accounting information about asset and capital structures and their changes can be employed to evaluate firm risk (i.e., total risk and systematic risk) and equity valuation. The main results of this paper are summarized as follows:

As financial leverage increases, other things being equal, both the overall and systematic risk of the stock's return increases, and the regression coefficients of earnings on a stock's market value and return decreases. Furthermore, B/S and I/S measures of financial leverage have differential explanatory power in risk and equity value regressions.

As operating leverage increases, other things being equal, both the overall and systematic risk of the stock's return increases, and the regression coefficients of earnings on a stock's market value and return decreases. In addition, B/S and I/S measures of operating leverage have differential explanatory power in risk and equity value regressions.

計劃緣由與目的

Objectives and Background

The purpose of this study is to examine how accounting information about asset and capital structures and their changes can be employed to evaluate firm risk (i.e., total risk and systematic risk) and equity valuation. Accounting information contained in financial statements is intended to provide information that is useful in making business and economic decisions (FASB, 1978). Although the objectives of accounting are greatly affected by the economic, legal, political, and social environment in different countries, the basic guidelines are never changed. That is, financial reporting should provide information to help present and potential investors and creditors and other users in assessing the amounts, timing, and uncertainty of prospective cash inflows. Therefore, users need information to form rational expectations about the risk (i.e., uncertainty) that the amounts or timing of future cash flows may differ from expectations. In other words, the ability to relate accounting measures to risk has tremendous value for users of financial statements. The AICPA Jenkins Report specifically recommends that standards setters should develop a comprehensive model of business reporting indicating the types and timing of information that users need to value and assess the risk of their investments. A major part of accounting research is concerned with the effect of managers' decisions on accounting information, hence, market value of firms.

It has been shown in prior literature that firm risk depends on a combination of many firm characteristics such as production technology, product market, and sources of funds. In other words, the sources of firm risk can be traced to intrinsic business risk, operating risk and financing risk. Intrinsic risk reflects uncertainty about the changes in product demand (unit sales price and quantity sold), and production factor prices and input efficiency. Operating risk is influenced by firm production technology, i.e., how a firm produces its products. For example, capital-intensive firms tend to utilize more fixed input such as heavy equipment than labor-intensive firms. Financing risk is related to the leverage through borrowings. Hence, financial statements containing information about asset and capital structures will exhibit the differences in firm production technology and the relative sources of funds.

Financial risk is related to the impact of uncertainty of financial policy on risk. More specifically, financial risk is associated with capital structure (i.e., debt-equity mix) and the fixed interest expenses. Operating leverage involves the investment in large amounts of plant,

property, and equipment (fixed costs). In other words, operating leverage is the proportion of a company's total expenses that are fixed, and is affected by a company's asset structure. The aim of this study is to examine empirically how the accounting information about the financial and operating leverage can be used to explain the risk of a firm, hence, to influence the investors' evaluation of firm value. Although prior studies have empirically examined the effect of financial and operating leverage on risk, some important issues are not investigated. Both the financial and operating leverages can be measured by the information contained in Balance Sheet or Income Statement. Therefore, which measures (B/S vs. I/S) are better explanatory variables for risk? In term of equity valuation, investors would be interested to know how the measures of financial and operating leverages (both B/S and I/S approaches) are related to valuation of equity value.

結果與討論

The main results of this paper are summarized as follows:

1. As financial leverage increases, other things being equal, both the overall and systematic risk of the stock's return increases.
2. As financial leverage increases, other things being equal, the regression coefficients of earnings on a stock's market value and return decreases.
3. B/S and I/S measures of financial leverage have differential explanatory power in risk and equity value regressions.
4. As operating leverage increases, other things being equal, both the overall and systematic risk of the stock's return increases.
5. As operating leverage increases, other things being equal, the regression coefficients of earnings on a stock's market value and return decreases.
6. B/S and I/S measures of operating leverage have differential explanatory power in risk and equity value regressions.

計劃成果自我評估

本計劃之研究發現係一有趣之結果，但仍有部分敏感性分析需補強，盼於後續補充後可於學術期刊發表。

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