

**Studienreihe der Stiftung Kreditwirtschaft
an der Universität Hohenheim**

Dirk Sturz

**Stock Dividends in Germany
An Empirical Analysis**



Verlag Wissenschaft & Praxis



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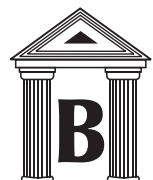
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Ef liba n'e lon, watra sa tingi.

Preface

Stock distributions change the number of outstanding shares and the equity structure of a firm. From a neoclassic perspective, both effects should not affect the market value. However, empirical studies find overwhelming evidence, that the stock price of companies reacts significantly positive to the announcement of stock distributions.

Despite the broad consensus about the positive market reaction, the possible causes are still at issue. Focusing on stock dividends, which are a special type of stock distributions, this study revisits this puzzle and investigates especially the economic effects of changes in the equity structure.

The investigation of the theoretical explanations discussed in the literature against the background of US- and German law concludes that these explanations are only resilient in the legal framework of Germany. This result is surprising since these theories were developed specially for the US market.

This is one of different reasons why German data is highly suitable for this study. Beyond that, German stock dividends allow to solely change the equity structure without issuing new shares. In prior empirical studies, both effects are diluted.

The empirical investigation provides a deeper insight into the economics of stock dividends. Beyond analyzing existing theories, additional explanations of the effects are developed and tested. I hope that this volume of the study series of the Stiftung Kreditwirtschaft finds your interest.

October 2014, Stuttgart

Prof. Dr. Hans-Peter Burghof

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I Introduction

This study investigates the announcement effects of stock dividends, a special type of stock distributions in Germany. Stock distributions in general can be described as the issuance of bonus shares to shareholders. As these bonus shares are distributed to the old shareholders free of charge, no additional capital is paid into the company. Neglecting transaction costs, stock distributions do not affect cash flow, assets or the debt equity ratio of the firm. Hence, the market value of firms announcing stock distributions should remain constant.

Regarding the accounting method, stock distributions can be separated into stock splits and stock dividends. While stock splits simply increase the number of shares without affecting the balance sheet, stock dividends increase capital stock from corporate funds, such as capital reserves or retained earnings. Modigliani/Miller (1958) have shown that when the debt equity ratio is irrelevant for the firm value, any transaction within the equity item of the balance sheet should be irrelevant as well.

Consequently, there should be no impact on stock prices following announcements of stock distributions. On the ex-day of the stock distribution, the share price should decrease at the same rate at which the number of shares increases to keep the market value constant. Yet a notable number of empirical studies find significant positive abnormal returns following the announcement of stock distributions. The studies cited are Fama et al. (1969), Woolridge (1983b), Grinblatt/Masulis/Titman (1984) and Brennan/Copeland (1988b). Few studies which investigate the German market confirm these results (Gebhardt/Entrup/Heiden, 1994, Padberg, 1995, Kaserer/Brunner, 1997).

Theories that literature provides to explain the positive announcement effects can be categorized into liquidity-based explanations and signaling theory.

The liquidity-based trading range hypothesis by Copeland (1979) claims that an optimal price band for stocks exists. High share prices decrease the divisibility and thereby small investments in the stock are hindered. When stock prices exceed the upper boundary of the band, managers can reduce the share price by stock distributions to increase the liquidity of the stock.

In contrast to the trading range hypothesis, the retained earnings hypothesis by Grinblatt/Masulis/Titman (1984) is based on the signaling theory and thereby focuses on the accounting method and not on the issuance of bonus shares. Thus, the retained earnings hypothesis can only be applied to stock dividends, not to stock splits.

A brief description of the retained earnings hypothesis can be found in Rankine/Stice (1997b: 165). They summarize the retained earnings hypothesis as follows: “By voluntarily reducing the existing pool of distributable funds, managers of undervalued firms can signal their confidence that such a reduction will not negatively impact the firm’s ability to make future cash distributions.”

Nevertheless, the effects of the accounting method are not yet completely understood. To provide deeper insight, this study focuses on the analysis of stock dividends. First of all, it is questionable whether distributable funds indeed are reduced by stock dividends. Therefore, *Chapter II* illustrates the detailed mechanisms of stock distributions and how distributable funds are restricted by stock dividends in the US and in Germany.

Chapter III discusses theories and empirical findings of stock dividends. As none of the studies finds negative abnormal returns, theory focuses on the positive effects of the accounting method. Therefore, literature has not yet considered that the management of a firm with high free cash flow can further deprive capital from the shareholders by transferring retained earnings to capital stock. Following Jensen (1986), this negative effect should be particularly significant for firms with a high free cash flow.

Chapters II and *III* conclude that analyzing the German market is more promising than the US market for a variety of reasons. First of all, it is questionable whether distributable funds truly are restricted by stock dividends in the US. Second, the accounting method of stock distributions often is not clearly defined in many US announcements. Therefore, the announcement effects of the accounting method are diluted in the US.

Chapter IV and *V* utilize an event study to investigate stock dividends in Germany empirically. This study focuses solely on the accounting method disregarding liquidity effects. Different hypotheses which are developed in the previous chapters, such as Jensen’s free cash flow hypothesis, are incorporated into the empirical analysis. Beyond it has not yet been possible to empirically analyze the accounting effect separately

from the liquidity effect as stock dividends in prior studies always issued bonus shares at the same time. Up to now, this is the main criticism on the retained earnings hypothesis. Since 1998, Germany allows for stock dividends without the issuance of bonus shares (Wulff, 2001: 19), which will be investigated separately.

Chapter VI summarizes and discusses the main results of the study.