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Does the January effect exist in high-yield bond market?

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Abstract

Previous studies show that January returns in high-yield bond (HYB) markets are usually large. While these results are ubiquitous, their validity depends on the robustness of statistical procedures used. Virtually every study of seasonal variation in HYB markets has used mean/variance analysis despite it being well documented that returns in HYB markets are nonnormally distributed. This study uses stochastic dominance comparisons to audit previous parametric tests of the January effect in HYB markets in the U.S. from 1926 to 1993. Results indicate that the January effect in HYB markets is robust and that previous findings are not an artifact deriving from violations of distributional assumptions. © 2001 Elsevier Science Inc. All rights reserved.

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1. Introduction

The January effect (also called the turn-of-the-year effect) refers to the unusually large, positive average security returns during the last few days of December and first week of January.[1] The finance literature contains substantial evidence of seasonality in risky marketable securities. For example, stocks tend to exhibit unusually high returns in January not only

[1] Early papers on stock return seasonality and size effect include Banz (1981), Branch (1977), and Rozeff and Kinney (1976). For evidence of other seasonalities in security returns, see Ariel (1987), French (1980), and Lakonishok and Smidt (1988).

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in the U.S. but also around the world (Gultekin, 1983). The bond market also does not seem to be immune to seasonal effects; examples include consistently high returns in January (Chang & Pinegar 1986; Maxwell, 1998; Schneeweis & Woolridge, 1979; Smirlock, 1985; Wilson & Jones, 1990) and high (low) returns in the second (fourth) week of the month (Jordan & Jordan, 1991).

Schneeweis and Woolridge (1979) find evidence of a January effect in various municipal, corporate, public utility, and government bond series. Smirlock (1985) finds a January seasonal for low-grade corporate bonds but not for high-grade corporate or U.S. Government bonds. Chang and Pinegar (1986) also find a January seasonal for low-quality bonds. They investigate whether the results can be explained by tax-loss selling and find that it does not appear to be the only cause of the January seasonal. Wilson and Jones (1990) find a January seasonal for corporate bond and commercial paper returns. Maxwell (1998) reports that his findings are consistent with the increased strength of the January effect as bond ratings decline. Also, his study demonstrates a shift in demand for higher-rated bonds at yearend that is related to institutional "window dressing."

Researchers have found systematic differences among returns for different months of the year in low-grade bonds. No fully satisfactory explanation has been provided for this apparent violation of the trading hypothesis. In the absence of a theoretically acceptable explanation for an observed phenomenon, the question of appropriateness of research methods arises. Virtually all prior studies have relied on parametric t and F-tests to document the January effect in low-quality (high-yield) bonds. While researchers recognize that these parametric tests are not strictly appropriate for assets with nonnormally distributed returns, they assume that any deviation from normality is compensated for by the robustness of parametric methods.

However, this paper uses a stochastic dominance analysis to investigate the January effect in the high-yield bond (HYB) market. Stochastic dominance is a useful tool for making comparisons among distributions without relying on parametric assumptions. In this study, stochastic dominance comparisons are used to show that the January effect in HYB markets documented in earlier studies are robust and do not appear to result from deviations from normality that exist in sample data.

The remainder of this paper proceeds as follows: Section 2 briefly discusses data description and analysis, Section 3 introduces stochastic dominance research methods and results, and Section 4 summarizes.

2. Data description and analysis

Monthly returns of high-yield corporate bonds (bonds included in this series are weighted by rating single B and below) are obtained from Ibbotson Associates for the period of 1926–1993. However, the original data for this study were maintained by First Boston. Monthly returns on long-term high-grade corporate bonds (HGB) and long-term government bonds (LGB) from January 1926 to December 1993 are taken from Ibbotson and Sinquefeld's 1994 yearbook of Stocks, Bonds, Bills, and Inflation (Ibbotson Associates, Chicago). Furthermore, the spread (return of high-yield corporate bond – the return on LGB) is used in this study to eliminate the effect of changes in the term structure.