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The Halloween effect: Trick or treat?

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Abstract

Research documents higher stock returns in November through April than for the rest of the year. This anomaly is known as the "Halloween effect" and results in the following trading rule: sell stocks in early May, invest in T-bills, and re-invest in stocks on Halloween. In contrast to recent studies, we show that the Halloween effect is robust to consideration of outliers and the "January effect." Additionally, we show that investing in a "Halloween portfolio" provides risk-adjusted returns in excess of buy and hold equity returns even after consideration of transaction costs.

Introduction

The "Halloween effect," identified by Bouman and Jacobsen (2002), is an equity return anomaly in which the months of November through April provide higher returns than the remaining months of the year. This effect, if real, is perhaps of greater interest to investors than most other anomalies because the trading rule is simple to implement with low transactions costs, making exploitation of this anomaly potentially profitable. More recent studies posit that this anomaly might be driven by outliers or is simply the "January effect" in disguise. In this study, we examine the robustness of the Halloween effect to the consideration of outliers and the January effect. We also construct mean-variance efficient portfolios to determine whether investing in a Halloween portfolio can result in risk-adjusted returns superior to those of a buy-and-hold market portfolio. Finally, we examine the impact of transaction costs on the returns to investing in a Halloween portfolio.

Section snippets

Literature review

In their seminal paper, Bouman and Jacobsen (2002) analyze stock returns across 37 countries from January 1970 through August 1998 and find a Halloween effect in 36 of these markets. This finding is remarkable in light of the adage "sell in May and go away" having appeared numerous times in the financial press before and during their sample period. Most return anomalies disappear after discovery, presumably as opportunistic traders exploit them. The effect is particularly strong in European...

Sample and method

We use monthly value-weighted and equal-weighted stock returns from the Center for Research in Security Prices (CRSP) over the period 1926–2008. We use the following regression model, identical to that of Lucey and Zhao (2008), in our examination:$R_t = \alpha + \beta_1 W_t + \beta_2 J_t + \varepsilon_t$where R_t is the return on the index, W_t is the Halloween indicator, which has a value of "1" in the months from November to April and "0" otherwise, and J_t is the January indicator, which has a value of "1" in January and "0" otherwise....

Results

We begin our investigation of the Halloween effect by examining the monthly returns on the CRSP value-weighted portfolio, which we use as a proxy for the market portfolio. Fig. 1 shows these returns alongside the CRSP equal-weighted returns for the period 1954–2008. If the Halloween effect is real, monthly returns for November through April should be higher than monthly returns for May through October. The value-weighted returns displayed in Fig. 1 are consistent with the Halloween effect...

Conclusion

In this study, we show that the Halloween effect in U.S. returns is significant in the period 1954–2008, but not before. Anomalies usually are present only in older data, given that they can be exploited for profit by savvy investors once they are identified. This does not appear to be the case with the Halloween effect. We also show that the Halloween effect is robust to consideration of outliers, the January effect, and transactions costs. Some anomalies, such as those related to weather,...

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...However, the overall sector classification remains the same for all sectors except for financial services, which steps down from medium to weak. A final robustness check is based on the results of Haggard and Witte (2010) that the SIM effect in the CRSP market index becomes weaker when considering outliers via M-estimation. Table 6 reports our M-estimation results of Equation (1)....

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...Fourth, we analyse the impact of outliners in the annual success ratios and strategy returns because they can render least squares estimates unreliable (see Lucey & Tully, 2006). To this end, we perform Huber M-estimations (as specified in Haggard & Witte, 2010) as they are designed to limit the influence of outliers in the dependent variable. We find that our main conclusions are not driven by outliers and thus remain valid....

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