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The relationship between the 52-week high of an individual stock and stock market index level: Evidence from Taiwan

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ABSTRACT

This paper examines the positive connection between the 52-week high of a stock price and its return. In addition, other reference points including 5-day high, 20-day high, and 60-day high are considered under different stock market index levels. Using firm characteristics as proxies of preference and risk, this study employs a panel model in Taiwan and found a stronger positive connection where the stock index is greater than the 52-week average, whereas a weaker positive relationship exists where the stock market index is below the 52-week average. The results imply that a conservative investor sentiment to rising stock prices exists when the stock market index is relatively low in comparison to the 52-week average.

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1. Introduction

52-week high is form of momentum strategy that investors structure their portfolios by buying winners and selling losers. George and Hwang (2004) find 52-week high strategy is more profitable than Jegadeesh and Titman (1993) price momentum. It is suggested that the price levels indicated by the 52-week high are a more important determinant of the momentum effect than that indicated by previous pricing trends. The investors regard the high price levels as an indicator of potential good news. Whether or not the news about the company is indeed "good" is invariably compared back to the stock's 52-week high. Thus, the stock's 52-week high is viewed as a reference point for investors predict their potential gains or losses. Other literature also agrees with the similar empirical results.

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Marshall and Cahan (2005) document evidence consistent with 52-week high momentum having a positive average monthly return in Australia. Research conducted by Du (2008) supports the view that the 52-week high is a critical factor in international stock prices. These empirical results are consistent with Huddart et al. (2009), who argued that past price extremes has influence over investor decisions.

When good news leads to the stock price rising to a level close to the 52-week high, optimistic sentiment results, thereby enhancing the trend-tracking behavior and in turn improves the momentum effect or the 52-week high effect. This is because when the stock price approaches the 52-week high, there are two forces causing an increase in the potential future stock return. These two forces stem from the information effect of the rising price, and the positive sentiment accompanied by the rising price. However, the past research ignores that a high level of stock index may impede the 52-week high effect. If the relatively high prices of an individual stock could assist in identifying the largest potential short-term capital gains, it could be inferred that another important factor is the relatively high performance of the whole stock index. This paper concerns the appropriate timing for buying into and selling stocks in order to exploit the 52-week high effect in deriving profits.

Information about the 52-week high is readily available from mass media and investors use the latest 52-week high as a benchmark for the current stock price. As individual investors are at an informational disadvantage, it is proposed that they tend to follow stock trends more so than institutional investors. DeBondt (1993) and Brown and Cliff (2004) argued that there are stronger corresponding movements between individual investors and stock returns. Previous literature has mentioned that the under-reaction of investors to new information arriving and slowness to revise their prior information result in price momentum profits (e.g., Barberis et al., 1998; Daniel et al., 1998; Hong and Stein, 1999). Taiwan stock market provides a good example for the purposes of this research as the proportion of individuals participating in the market is more than half of the total market participants. Domestic and individual investors constituted 60.21% of all Taiwan stock market participants in 2007 and 63.92% in 2008. In addition, Taiwan market this study discusses is interesting as it provides a typical example in emerging markets.

In detail, four major sets of research concerns to be addressed in this paper are as follows.

Firstly, it is necessary to consider how the level of the stock index affects the 52-week high of individual stock through investor sentiments. Potential good news resulting from a well performing stock index generates promising prospects for an individual stock. This in turn motivates investors to trace the past trends of individual stocks, as investors expect rising prices in the future from a bullish market. It is thus suggested that a higher stock index level should lead to the improved performance of the individual stock. By the contrast, a bearish market or a low stock index level may sap investor confidence in holding onto stocks. This paper will identify how the stock index level affects the connection between the 52-week high and stock returns.

Secondly, apart from using the 52-week high as reference point, this paper attempts to discover whether other possible forms of important information exist, which can also be adopted as a reference point by investors. Where the 52-week high is used as a reference point, it is proposed that similar manifestations of past high price points measured at different periods should also be used as reference points, such as the weekly (5-day), monthly (20-day) or seasonal highs (60-day). Those benchmarks may also be used as a comparison to the current price. However, very few studies have attempted to understand the relationship between stock returns and such benchmarks.

Thirdly, the heteroscedasticity of an individual company should be considered in the model proposed. Conard and Kaul (1998) noted that momentum profits can be attributed to cross-sectional variation in the expected returns of stocks rather than to the predictable time-series variation. Furthermore, Moskowitz and Grinblatt (1999) argued the industry risk factors can adequately explain the derivation of momentum profits. Similarly, Grundy and Martin (2001) suggested that the stock-specific return component explains the profitability of the momentum strategy. Momentum profits are thus the compensation for the risk assumed by investors in which the cross-sectional differences are reflected in the variations in the expected returns of stocks. Few papers have mentioned or examined the direct connection between the 52-week high effect and cross-sectional variation, even though the connection between the price momentum effect and cross-sectional variation has been observed. Thus, the cross-sectional variation should be included in the proposed models in the discussion of the 52-week high effect.