

## **CHAPTER 2**

### **LITERATURE REVIEW**

Hopewell and Schwartz (1978) examine daily abnormal returns in the NYSE temporary trading suspensions. They discovered that for the entire sample, there is no systematic tendency for price adjustments. However, large absolute changes are documented for multiday halts which increased from shorter to longer suspension period. They also documented large price changes, average 9.35 percent for uptick and -9.62 percent for downtick. In the prehalt period, Hopewell & Schwartz find anticipatory price reactions for trade imbalance halts and good news halts, but none for bad news halts. Posthalt returns are close to zero on average, these results suggest rapid adjustment to material new information disseminated during trading suspensions. The authors conclude that these inefficiencies cannot be exploited profitably after considering typical transaction costs. This study uses the same methodology as Hopewell and Schwartz (1978) but applied to different market. Being a matured and efficient market, it is not surprising to see a rapid adjustment to material new information in NYSE. This study will attempt to find out the maturity of our own KLSE and its efficiency as a market in developing country.

Schwartz (1982) documents that the specialist indicator quotes during the halt appears to be an accurate predictor of the reopening price. This is consistent with the progressive price discovery process. King, Pownall and Waymire (1991) focus on the relation between the magnitude of the price change and characteristics of the indicator quotes. They find that halts associated with greater price movements are larger duration and have more indicator quotes that tend to be less accurate. Apparently, indicator quotes

were not used in KLSE and usually the opening price is determined by the match between buyer's demand price and seller's supply price at the time of requotation.

Fabozzi and Ma (1988) examine over-the-counter activities for NYSE stocks during the halt. They find that NASDAQ trading is characterized by high volatility. There are no opportunities for arbitrage profits since the first transaction price during the halt is an unbiased estimate of the eventual NYSE reopening price. The same characteristics can also be found in KLSE – second board will have higher volatility than the main board. The study will examine the price adjustment of main and second board that are characterised by their different volatility.

The efficiency implications of trading suspensions were empirically tested by Kryzanowski (1979). His study shows three major finding : (1) the regulators have monopolistic access to significant new information that is not reflected in stock prices prior to a trading suspension, (2) the market is not efficient in the semi-strong form for unfavorable new public information and (3) the market appears to be efficient in the semi-strong form for favorable new information. According to Kryzanowski, the finding that the market was not efficient in the semi-strong form for unfavourable information is important because it adds to the growing body of empirical evidence that does not support the semi-strong form of the efficient market model. Also, the finding that the market was efficient in the semi-strong form for favourable information suggests that there seems to be lags and frictions in the downward adjustment of security prices. A possible contributing factor to this asymmetry may be that "selling short" is a less effective market mechanism for the adjustment of security prices than "buying long". "Selling short" could be less effective than "buying long" because it entails both a greater downside risk and more stringent institutional constraints (such as the "zero-up-tick" rule and margin requirements). Goldman and Sosin (1979) also suggest that policies such as trading halts can improve market efficiency.

Lee, Ready and Seguin (1994) and Gerety and Mulherin (1992) analyze market activity in respect of trading halts in the NYSE. Lee, Ready and Seguin (1994) discover that trading halts increase, rather than reduce, both volume and volatility. Trading volume during the halt period is not significantly different from the cumulative volume during price-match "pseudohalts" : nonhalt control periods matched on time of day, duration and absolute net-of-market returns. However, in the first full trading day after a halt, volume is 230% greater and volatility is 50% to 115% larger than after price-matched pseudohalts, depending on the measure employed. Further, higher trading volume is observed for at least three full trading days after halts. Price volatility effects remain for one full trading day. These findings are robust due to the amount of new information that were fed into the market during the suspension period. Investors and market makers alike are waiting for the reopening of trade to pound on the securities to make additional profit.

Lee, Ready and Seguin (1994) further show that media coverage affects volume and volatility after halts and pseudohalts : volume and volatility are both reliably larger for events accompanied by news releases. This evidence suggests that media coverage increase the degree of divergence in interpretations of a common signal. However, they discovered that media coverage does not fully account for the increased volume and volatility after halts. Establishing a link between media coverage and market activity is important since traditionally the degree of news exposure has not been regarded as relevant to firm valuation and has not been considered relevant in explaining trading volume. Further, this link provides some support for the "differences of opinion" class of models, where agents with common information trade because of differences in their interpretation of the common signal. Media coverage seems to increase heterogeneity of beliefs.

Gerety and Mulherin (1992) document that investors were generally skittish about trading halts that prevent them from shedding the risk of holding positions. They find that trading volume at one day's closing hour and the following day's opening hour are both related to expected overnight volatility.

This is consistent with the argument that much of the clustering of trading around the open and the close is due to the desire of investors to exchange the exposure to price changes when the market is closed. Trading volume at the open is also related to unexpected volatility from the previous overnight period, confirming the intuition that the overnight accrual of information leads to trading activity at the open.

Proponents of circuit breakers like Goldman and Susin (1979) claim that circuit breakers have a calming effect by allowing market participants to catch up on information flow in periods of high volatility. They admit that the illiquidity caused by closing markets potentially could exacerbate credit problems by preventing investors from acquiring funds to meet margin calls. Gerety and Mulherin (1992) results point to a more fundamental cost of closing markets. The evidence indicates that some investors wish to shed the risk of holding positions when the market is close. Mandatory trading halts prevent such a transfer, implying a loss of gains from trading. As noted by Alchian and Allen (1969), "...stopping trading during those times (of high volatility) locks existing owners into continuing ownership even though they would prefer to shed the uncertainty by selling to those who are more willing to bear it". Rather than calming markets, the presence of a circuit breaker can cause investors to overreact and leave the market more quickly than if a circuit breaker does not exist. Hence, an environment with circuit breakers may have negative welfare implications vis-à-vis an environment without circuit breakers.

However, this study will not attempt to endorse or condemn the introduction of circuit breakers in KLSE. In the mist of the recent furore over the market decline and currency crisis, circuit breakers are a topic on its own and are better be left to future research.

The most recent article on trading suspension was written by Battacharya and Spiegel (1998) entitled "Anatomy Of A Market Failure : NYSE Trading Suspensions (1974-1988)". The article was the first

intertemporal examination of trading suspensions. Using a cross-sectional analysis of all trading suspensions that occurred during the period 1974-1988 in the NYSE, they attempt to answer three important questions : What motivates the exchange to call a suspension, what is the relationship between the “resiliency” of the exchange (its ability to absorb severe volatility shocks) and other measures of liquidity and has the “resiliency” of the exchange improved over time ?

According to Bhattacharya and Spiegel (1998), trading suspensions occur when either of the following two triggering mechanisms arises : The firm announces impending news (49.1% of all suspensions in the sample) or the market maker observes a severe order imbalance (48.5% of all suspensions in the sample). These triggers make the market makers dramatically revise upward their estimates of the stock’s variance and they may suspend trade because of their desire to maintain price continuity or because of adverse-selection fears caused by the increased likelihood of trading with insiders at this point in time or because of inventory concerns.

The study also founds that larger capitalization stocks have suspended more often. If the number of suspensions per year is used as metric for liquidity, it seems that larger firms are less liquid than smaller firms. Similar finding was also observed in this research – main board with larger capitalization stocks have more suspension than second board. (67% of our samples were main board suspensions). The main board also have longer suspension period and larger standard deviation with a mean-length of 11.4 days and standard deviation of 90.33 as compared to second board of 9.7 days and standard deviation of 32.27.

Finally, the study noted that resiliency in the NYSE increased in the period 1974-1988. This resulted in improved liquidity and shorter suspension period. It could be either that specialists are simply passing off a greater friction of the volatility risk to other traders. However, from the point of view of

individual investors, it really does not matter who handles their trades, their only concern is speedy execution at the best price.