

CHAPTER 2 : LITERATURE REVIEW

Over the years, there have been an increasing number of empirical studies adopting sophisticated statistical techniques which revealed an increasing number of anomalies or seasonal variations in the parameters of return distribution especially mean returns amongst global stock, bonds and foreign exchange markets. Amongst them are size effects, low PE ratios effect, Monday effect, January effect, Value Line phenomenon, holiday effect etc. This study would focus on only two of the calendar effects i.e. Monday effect and January effect.

2.1 Empirical Evidences On Monday Effect Or Weekend Effect Or Day-Of-The-Week Effect.

Whilst there appeared to be no specific reasons to expect stock returns to be higher in certain day of the week than in others, an increasing number of studies have uncovered evidence that refute this belief. Amongst these studies are French, 1980; Gibbons and Hess, 1981; Rogalski; 1984; Keim and Stambaugh, 1984; Jaffe and Westerfield, 1985a and 1985b; Smirlock and Starks, 1986; Harris, 1986; Wong and Hin-Dong, 1986; Condoyanni, 1987; Annuar and Shamsher, 1987; Lee, Pettit and Swankoski, 1990; Aggrawal and Tandon, 1995.

French (1980) noted significantly negative Monday's daily return as compared to the rest of the days in the week for the overall period and each

of the five year sub-periods whilst analyzing the S&P 500 Index from 1953-1977.

Gibbon and Hess (1981) conducted similar studies on NYSE listed securities from 1962-1978 and found that Monday's average daily return was significantly negative.

Rogalski (1984) examined the set of 500 stocks in the S&P 500 and found Monday's daily return to be negative and that this negative return occurred over the non-trading period from Friday's close to Monday's open. The average trading day daily returns were identical for all days of the week. Consequently, this weekend effect was essentially a non-trading-weekend or holiday effect. Further, he showed that the firm size effect was interrelated with this Monday effect.

Similar study between the effects of trading and non-trading periods was conducted by Harris (1986) who examined all 1616 NYSE listed stocks from December 1981 to January 1983 and found that the negative Monday's daily return was composed of two roughly equal-sized negative returns during the trading and non-trading periods. Statistical tests showed that the average non-trading period return as well as the average trading period return for Monday were significantly different from the corresponding mean returns for the remaining days of the week. As for large firms, negative Monday's daily return occurred between Friday's

close to Monday's open whilst for smaller firms they occurred primarily during Monday's trading day.

Smirlock and Starks (1986) investigated the hourly data of Dow Jones Industrial Average for day of the week effects and confirmed the findings of Rogalski (1984) which found that Monday's effect was due to the non trading period from Friday's close to Monday's open.

Doubling the length of period as examined by French (1980), Keim and Stambaugh found negative Monday's daily return as early as in 1928. Throughout the 55-year period analyzed, there was a consistently negative Monday's daily returns. In addition where there were Saturday trading, Friday's daily return was generally lower than that of Saturday's return.

Jaffe and Westerfield (1985a and 1985b) examined some major international stock markets and discovered that there were strong varying daily patterns in these markets. Far Eastern markets namely Japanese and Australian markets seem to exhibit significantly negative Tuesday's daily returns as compared to Monday's effects found amongst US, UK and Canadian markets. They also found no evidence of a correlation between this different daily seasonal patterns in the Western (US, UK and Canadian) and Far Eastern (Japan and Australia) markets.

Wong and Hin-Dong (1986) conducted study on the SES All Share and six other sectorial indices on the Singapore Stock Exchange and

discovered similar weekly seasonal patterns with Monday's daily return being significantly negative as in UK, US and Canada.

Condoyanni (1987) analyzed the Monday's effect on seven international stock exchanges of New York, Sydney, Toronto, London, Tokyo, Paris and Singapore and discovered that Monday's effect appeared to be the norm rather than the exception in this range of international stock exchanges around the globe.

Annuar and Shamsher (1987) examined the NST Industrial Index from July 1975 to December 1985 and found that the lowest mean daily returns for Malaysian stock market occurred on Tuesday as in most Pacific Basin markets (Japan and Australia) and both Monday's and Tuesday's daily returns were significantly negative. Friday's returns was the highest over all the trading days.

Lee, Pettit and Swankoski (1990) investigated the day of the week relationship amongst selected Asia Pacific stock markets namely USA, Hong Kong, Japan, Korea, Taiwan, and Singapore using stock indices from 1980 to 1988 and suggested that day-of-the-week effects seem strong and persistent in most Asian markets. Returns were found to be negative on Mondays in all markets except Korea and Taiwan. Saturday returns are much above the daily average return in all countries that offer Saturday trading.

Aggrawal and Tandon (1995) examined stock market returns in 19 countries namely, Australia, Belgium, Brazil, Canada, Denmark, France, Germany, Hong Kong, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Singapore, Spain, Sweden, Switzerland, and UK using major stock indices from 1971-1987 and found that Friday returns are larger than the average daily return in most countries. Monday returns are the lowest and negative in nine countries (Brazil, Canada, Denmark, Germany, Italy, Mexico, Singapore, UK, and Switzerland) and nine other countries exhibited the lowest returns on Tuesday (Belgium, France, Netherlands, Spain, Sweden, Australia, Hong Kong, Japan, and New Zealand) . In addition, Monday returns are significantly lower when the market dropped over the previous week than when it rose.

2.2 Empirical Evidences On January Effect Or Year End Effect Or Month Of The Year Effect.

The preference of an individual for liquidity may be thought to change from month to month. Personal income flow may also be considered to vary during the various months of the year. Could these factors lead to a shift in investment pattern from month to month leading towards seasonal variations in monthly stock returns? Amongst the studies that have uncovered a January seasonal pattern in monthly stock returns are Officer, 1975; Rozeff and Kinney, 1976; Dyl, 1977; Branch, 1977; Keim, 1983; Reinganum, 1983; Gultekin and Gultekin, 1983; Berges, McConnell and Schlarbaum, 1984; Kato and Schallheim, 1985; Lakonishok and Smidt, 1986; Tinic and Rogalski, 1986; Ariel, 1987; Wong and Lee, 1989; Yong, 1989; Annuar and Shamsher, 1990; Agrawal and Tandon, 1995; etc.

Officer (1975) uncovered monthly seasonal variations in stock returns on the Australian stock market using Australian stock indices. He cited that these variations could be attributed to the changing opportunity cost of money and the structural patterns in the Australian economy. There was no prima-facie evidence of market inefficiency arising out of this monthly seasonal pattern in stock returns.

Rozeff and Kinney (1976), in a study on the average monthly returns on NYSE listed common stocks from 1904-1974, discovered a

significant monthly seasonality in the mean distributions for stock returns, notably a significantly large January returns as compared to the rest of the months during a year. In addition, returns for months of July, November and December were quite high whilst those of February and June were amongst the lowest.

Dyl (1977) and Branch (1977) investigated the impact of capital gains tax vis-à-vis January effect and noted that there were high volumes of trading for securities with losses and low volumes of trading for securities with capital gains near the year end. They concluded that investors tend to sell securities showing capital losses in order to minimize tax payments at the end of each year and reinvest during the beginning of the year. It does appear to have merit in that stocks that declined during the previous year end tend to have the largest appreciation in first week of January.

Similar study by Reinganum (1983) and Lakonishok and Smidt (1986) confirmed that the high abnormal returns for January were due to capital gains taxation factor leading to lower securities prices in December and subsequently leading to a large capital appreciation during the beginning of January when prices jump back to their intrinsic values.

Keim (1983) examined all NYSE-listed and AMEX-listed stocks over a 17-year period from 1963-1979 and discovered that January effect and size effect are strongly inter-related. The firm size effect was strongly

pronounced in January and for small firms, they exhibited a large abnormal returns whilst those of large firms showed a negative abnormal return. The January effect was found to be concentrated in the first five trading days of January.

Gultekin and Gultekin (1983) examined the stock indices of major markets i.e. Australia, Austria, Belgium, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, UK, and USA and found that there existed strong seasonal variations in the monthly mean return distributions for most of the countries analyzed and especially an unusually high abnormal January returns for nearly every country included in their study.

Berges, McConnell and Schlarbaum (1984) examined the Canadian stock returns from 1951-1980 and provided evidence that January effect was not contributed by capital gain taxation as this seasonal pattern existed in Canadian stock returns both before and after the introduction of a capital gain tax in Canada.

Kato and Schallheim (1985) investigated the Japanese stock indices and discovered that the January anomaly also existed in this Far Eastern market but the January effect is sensitive to the type of market index used in the analysis.

Rogalski and Tinic (1986) in examining the January and firm size effect noted that the betas of small firms tend to increase at the beginning of January. It implies that small capitalization stocks may be relatively much more riskier in January than during the rest of the year. Therefore they concluded that a relatively higher average returns for stocks in January is justified.

Ariel (1987) noted that whilst the difference in monthly returns for January vis-à-vis the other months of the year was minor in the early part of the century, it appeared that the average return in January has been approximately 3% higher than the average monthly return in February through December in recent years.

Annur and Shamsheer (1987) studied the monthly rates of return for 8 sectorial indices i.e. KLSE Composite, NST Industrial, KLSE Industrial, KLSE Finance, KLSE Hotel, KLSE Properties, KLSE Tin, and KLSE Plantations from 1970 to 1986. They found that the mean January returns was the highest in all the indices except KLSE Tin which exhibited the highest return in February and the KLSE Composite which showed the highest return in April. However, the mean January returns was significantly different from the mean returns of February through December for sectorial indices namely KLSE Finance, Industrial, Property and Tin but as for market-wide indices like KLSE Composite and the NST

Industrial, January mean returns could not be distinguished from the mean returns for all the other months.

Wong and Lee (1989) examined the SES All Share and S.T. Industrial Indices from 1975-1988 and noted that departure from normal distribution is evident in January, October and November monthly return distributions and that January has the highest mean monthly returns during the entire period with 11 out of the 14 January returns being positive.

Yong (1989) examined the six KLSE sectoral indices (i.e. Industrial, Finance, Hotel, Properties, Tins, Plantations) from 1970-1988 and noted that the January effect existed in all the above indices except the hotel sector which produced the highest return in February. The t-test reinforced the existence of this effect notably in the industrial sector. He attributed this phenomenon to the Chinese community's habit of speculating in stocks in January as a way to obtain additional money for the Chinese New Year celebration, thus driving prices up. Another reason was that portfolio managers' adjustments of their portfolios from risky stock to less risky stocks during year-end to report a more conservative picture of their portfolios and subsequently move back into the market in January, hence driving prices up.

Aggrawal and Tandon (1995) analyzed the stock indices for 19 countries i.e. Australia, Belgium, Brazil, Canada, Denmark, France, Germany, Hong Kong, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Singapore, Spain, Sweden, Switzerland, and UK from 1971 to 1987. They observed a significant monthly seasonal pattern in 11 countries namely, Australia, Belgium, France, Hong Kong, Italy, Mexico, Netherlands, Singapore, Sweden, Switzerland and UK, and a large January returns in most of the countries in the sample.