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RELATIONSHIP BETWEEN MARKET RISK AND TRADING VOLUME

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ABSTRACT

The research examines the relationship among systematic risk and liquidity in the context of Karachi Stock Exchange (KSE) All Index. Systematic risk was measured using Capital Asset Pricing Model (CAPM), while liquidity assessed through trading volumes. A dataset consisting of 340,194 daily share price observations from 467 firms listed on the KSE All Index, covering 32 industries (excluding Banking, Insurance, and Mutual Funds), was utilized. The KSE 100 Index was used to represent the market return. Additionally, trading volumes of the same firms were analyzed to construct 10 portfolios based on the Fama-French (1993) methodology. The results of the analysis indicate that firms with higher trading volumes tend to have greater systematic risk than firms with lower trading volumes. Moreover, the relationship between systematic risk and liquidity is weaker in firms with lower liquidity. The findings suggest that including firms with low trading volumes in an investment portfolio could increase exposure to market/systematic risk. This research contributes to a better understanding of how liquidity influences the risk/ return of firms listed on KSE and highlights the possible risks related with investing in less liquid stocks.

Keywords: *Systematic Risk, Non-Diversifiable Risk, Trading Volumes, Liquidity, Capital Asset Pricing Model, CAPM*

INTRODUCTION

Background

To maintain a cash or balance in banks is not a good idea in order to

maintain or maximize wealth, rather it results lower the current lifestyle as well due to devaluation of funds over every day passes. The hundred-rupee note can fuel the tank up to 1 liter five years ago and what is the condition today, we are fully aware of it. In order to sustain and at least preserve funds from devaluation, we need to invest and earn the returns up to the inflation rate of the economy. Above fuel example is taken from our country, Pakistan and the inflation rate here is currently 23.4 percent *(Source: Funds Manager's Report Al-Meezan Investments Aug-2024, Average 2024 rate of inflation)*. It means we have to earn at least 23.4 percent if we want to maintain the valuation level of our savings and funds.

Stock Exchange can be regarded as most attractive and emerging investing platform for the investors, who wants high returns with lowers risk in Pakistan. It is assumed that less than one percent of the investment is being circulated in the Pakistan Stock Exchange. Bond market in not very much developed in Pakistan as well as there is no platform for Derivatives or Futures market.

There are two types of risks i.e. Market Risk and Residual Risk. Market risk also known as systematic risk that is associated with the whole market with the factors that guides or influences the whole economy. While on the other hand, Unsystematic risk defined as the risk that is specifically concerned with a specific security or a company. Unsystematic risk can be mitigated by using different approaches such as diversification of the investment among different asset classes but Market risk cannot be avoided.

In this study, we are trying to understand whether the market risk can be avoided or mitigated in terms of long term versus short term investment or in frequently traded stocks in Pakistan Stock Exchange (PSX). Investors should have knowledge of both the risks associated with their investments as well as the linkage between return and risk with along with the time horizon and liquidity of investments.

Capital-Asset Pricing Model (CAPM)

A financial model known the capital asset pricing model (CAPM) determines expected rate of return related to investment. The market's projected return and a risk free asset, along with the correlation of asset or market sensitivity, beta, are used by CAPM to achieve this (Investopedia, 2024).

The elements of the said model are being defined here. The beta is the

only feature that predicts the return on investment that has the philosophy of having high risk bring high returns and similarly in the case of low risk, the returns may be low in this scenario (Frank K. Reilly, 1979).
The formula of CAPM is:

$$ER_x = R_f + \beta\ (Er_m - R_f)$$

ER_x = Ex. Return on Investment

R_f = Risk free rate

ER_m = Expected rate of return - (Market)

β = Sensitivity of investment with market/ benchmark

Extant literature would be including the pros and cons of CAPM approach and their findings leads towards the relevance of CAPM is different in developing market from the developed markets. The main reason of this difference is the market's dynamics and investor's behaviors at different levels, such as individual, institutions and foreign investors. However, my main objective is to identify whether there is any relationship between Market Risk and Liquidity. For this purpose, I will be using CAPM as proxy of market risk and trading volumes as liquidity.

My main hypothesis will be related to market/ systematic risk and liquidity.

H1: There is a relationship between systematic risk and liquidity.

This research study is for checking validity of CAPM in connection with trading volume is applied in Pakistan Stock Exchange. Thus, Research Problem is as follow:

"In the Pakistan Stock Exchange, there is a correlation between a firm's liquidity (trading volume) and its risk (CAPM)."

LITERATURE REVIEW

Literature Review

(Bernoulli, 2020) Founded in the seventeenth century, the proposed CAPM was based on the idea that asset value might be determined using returns rather than by evaluating the asset's price. Three fundamental presumptions underlie contemporary financial theory, and these are:

i. The market should be ideal.

ii. The investors are confident and taking a balanced approach.

iii. The arbitrage opportunity benefits the investors.

Since the stock or investment is being bought at a discount and sold at a premium in another market, arbitrage is advised.

(Investopedia, 2024) Based on the test's varied statistical findings, the asset pricing model was developed to explore the connections between investment risk and return on securities. Several pricing models assess investment returns while considering risk factors. Systematic risk is linked to the investment and cannot be controlled because it is present in the investment, whereas unsystematic risk can be controlled by diversification. Since risk is a part of investing, it is hard to suggest that an investor can avoid it. It is the capacity of the investor to accurately assess risk and employ strategy to mitigate it.

(Treynor, 1962) According to Treynor, the risk premium/ share for the ith investment should be equivalent to the market's investment covariance when accounting for any market investment.

(Sharpe, 1964) proposed streamlined model for portfolio analysis. The efficient technique for calculating capital asset pricing has been devised by the researcher. The return on the common index is linked to the return on the investment. It is necessary to use the variable that is affecting the stock as the common index. The average of weight rate of return on the investor's stock is the projected return of the portfolio, which is why the model works well for the portfolio as well.

(Matteev, 2004) After 1993, the results of the CAPM was not in effect and less striking for the investors. This is because the model's assumptions and theoretical approach were inadequate, which is why the model's outcomes were unsatisfactory. In that scenario, CAPM assumes that investors can obtain shares at the risk-free rate through lending or borrowing. Practically speaking, it is ineffective and un-implementable due to the numerous obstacles that investors must overcome in order to borrow or lend the security. Since the market index that is employed is not original, CAPM is unable to produce the intended results; as a result, other academics are proposing improved and expanded versions of CAPM.

Empirical Literature Review

In this researcher has conducted empirical literature review with context of national and international scenario, which is as follows:

International Scenario:

- **Australia Context**
  The differences between Asset pricing theory and CAPM were examined by (Fraser, 1997). They utilized GARCH to compare eight distinct sectors of the Australian market over an 11-year period from 1983 to 1993.

- **Europe Context**
  When it comes to implementation, the CAPM model is the most spoken about in the finance literature. As a result, various researchers have employed this model to evaluate and display the results and guarantee their validity; some of these studies support the validity of CAPM, while others do not.

  In the light of study of (Torman, 2016), Data from December 31, 2004, to December 31, 2015, was used to evaluate the risk and return ratio of eight different banks in the nation of Istanbul. The study is separated into two sections: the era before the 2008 crisis and the period following the 2003 crisis. The researcher used the median date of September 15, 2008, for the former and the latter. To determine the average of the erratic results before/ after the situation, researcher employed the t-test. The F-test has also been employed by researchers to evaluate the variation in risk rates. According to the study's findings, the beta and averages of the chosen banks changed significantly throughout the course of two time periods

- **National Scenario**
  The study was developed in order to examine the mean change of the C.A.P.M. obtainable by the (Sharpe, 1964) and Individual-based stocks were traded on the Pakistan Stock Exchange utilizing daily and monthly data from 1993 to 2004 (Javid, 2008). The study's conclusions indicated that C.A.P.M. is ineffective for the Pakistan's stock market, hence the researcher employed statistical interface models like Average Variance The Mean Varianc and Skewness Skewness Kurtosis (Litzenberger, 1973). Following with this researcher has also used the test of covariance, co-Skewness and Co-Kurtosis to measure time variation in the three moments CAP and four moments CAPM. The findings of the study in the three moments CAPM suggest that there a optimistic relative in the risk & return in Pakistani stock market during the selected time period. Similarly; the higher moment systematic covariance and co-Kurtosis have a slight part to illustrate the asset pricing model in the Pakistani Context.

(Kamran, 2018) According to the study's findings, weak trading in emerging markets is causing their indexes to underrepresent reality. A limited amount of stock is showing signs of consistent and aggressive activity. The market index is determined by the value of trading and has a lead in the equities that trade consistently. Consequently, the inefficient risk premium is developed by these qualities. Because the CAPM does not accurately reflect all market transactions and features, it is not used in emerging markets. Throughout the investigation, the four models' risk premiums had negligible values.

(Syed Ali, 2011) carried out the research to verify the KSE's capital asset pricing methodology. 387 businesses from 30 different industries made up the sample; data was basef on quarterly, monthly, and 1/2 yearly reports. The paired T-test has been used by researchers to examine the relationship between expected and actual returns. According to the study's conclusions, CAPM works well for estimating short-term projected returns as opposed to long-term investments. The analysis suggests that investors should pay more attention to the CAPM when predicting short-term returns than long-term ones for PSX.

(Muhammad Asif Shamim, 2013) also done the study of CAPM in order to assess the validity of the model in the listed companies of the stock exchange. The value added economic is being calculated through cost of equity this is being extracted through CAPM. One business from each of the 22 industries that trade on the Karachi Stock Exchange has been chosen by the researcher. Analysis was done using the time series annual data from 2008 to 2012. The ADE unit root test was employed by the researcher to estimate the price of the company's stock using a variable simple regression test. According to the study's findings, the CAPM's predicted expected return cannot be relied upon and isn't validated in the Pakistan's stock market. For testing the validity of CAPM in the Pakistan's stock market and the data has been used from the period of July 2004 to December 2012 (Nida Shah, 2015).

METHODOLOGY

Sampling Criteria & Its Limitations

By conducting empirical research and applying the model to emerging economies, such as the Pakistan Stock Exchange, study aims to evaluate the rationality of the C.A.P.M. in the context - Pakistan. From the first day of 2014 to the last day of June 30, 2018, the sample is utilized to test the model. There were mixed ups and downs in the trading volumes throughout this time

frame. Companies from every industry are included in the sample, with the exception of financial institutions. Every trading day throughout the time was used to gather daily price data, which included opening and closing rates, highs and lows, and daily trading volumes. The closing of the KSE-100 index is also gained within the same time window.

Source of Data

The statistics was composed from Pakistan Stock Exchange website as well as Thomson Ruters Data terminal used. To estimate the daily returns, daily fluctuation of price was observed. Market return was calculated by calculating return of KSE-100 index.

Formation of Portfolio

Ten portfolios were created to test the CAPM empirically based on firm trading volume in order to support the model's validity. Individual stocks were ranked and allocated to a certain portfolio based on the trading volume, which was calculated by using the average trading volume over the previous four and a half years.

Table5: Portfolio Selection Criteria

Average Daily Trading Volume in Thousands	No. of Firms in Sample	Portfolio
Above 1197	45	P1
Above 473	45	P2
Above 188	45	P3
Above 73.68	45	P4
Above 37.79	45	P5
Above 22.69	45	P6
Above 12.86	45	P7
Above 6.61	45	P8
Above 2.68	45	P9
Less than 2.680	59	P10
Grand Total	**464.0**	**10**

Tables 4 and 5 provide a detailed overview of the portfolios in relation to the average daily volume. Out of the 464 enterprises that were selected, the first 45 with the maximum average everyday trading volume were placed in portfolio=1, followed by the second 45 in P2, and so on.

CAPM Single Factor Model

The single-factor model can be stated as

$$R_{it} = R_f + (R_m - R_f)\, B_{1t} \qquad (1)$$

Where t=1,2,3,….. T_n

In the Above equation, R_{it} represents the rate of return on a stock *i* at time *t,* while R_f means the risk free rate of return, The difference f market return and risk free return is called the market risk premium. The coefficient B_{1t} shows the sensitivity of individual assets or portfolio risk towards the volatility of market returns. For testing the CAPM on portfolios, the following regression has been formed,

$$R_{pi} = a_{pi} + R_m B_{pi} + E_{pi} \quad (2)$$

Where R_{pi} represents the predictable return on a selected portfolio, R_m represents the market return in time t. The coefficient is the risk sensitivity of portfolio returns for market risk. E_{pi} is the residual error term.

Variable Estimation

Returns of an individual stock *i*, is estimated as:

$$R_{it} = LN (P_t / P_{t-1}) \times 100$$

Where the closing prices for days t and t-1 are denoted by P_t and P_{t-1}, respectively. The average return of each individual stock in the portfolio is the portfolio's return for period t.

$$Rpt = \frac{(Sum\ of\ daily\ return\ of\ individual\ stock\ in\ that\ portfolio)}{(Number\ of\ stocks\ in\ that\ portfolio)}$$

The yields for market for a specific time t projected as:

$$R_{mt} = LN (KSE100_t / KSE100_{t-1}) \times 100$$

One-way ANOVA – Analysis

The acronym ANOVA stands for Analysis of Variance and it is a procedure of statistic used to test the degree to which two or more groups contrast or differ in test.

In current research, it is analyzed the variation in each portfolio which is based on top average trading volumes.

Ordinary Least Square Equation

(Gujarati, 2004) Explained following population regression function and argued sample regression can be run with ordinary least square equation if certain fulfilled.

$Yi = \beta 1 + \beta 2Xi + \mu i$ ---- Population Regression Function

$Yi = \hat{\beta}1 + \hat{\beta}2Xi + \mu i$

$Yi = \hat{Y}i + \hat{u}i$ ---- Sample Regression Function

In least square, minimized sum of squared residuals is

$$\sum \hat{u}i^2 = \sum (Yi - \hat{Y}i)^2$$

$$\sum \hat{u}i^2 = \sum (Yi - \hat{\beta}1 - \hat{\beta}2Xi)^2$$

Ordinary Least Square Regression (OLS)

The regression model is linear in the parameters as shown below:

$$Yi = \beta 1 + \beta 2Xi + \mu i$$

EMPITRICAL RESULTS

Empirical Results of one-way ANOVA

The mean daily return for every portfolio over the model period is thepositive return on Portfolio 1 is 1.5 basis points, whereas the positive return on Portfolio 2 is 1.9 basis points. The average day-to-day return for P-4, P-5, P-6, and P-7 is 6.6 bp, 6.7 bp, 8.0 bp, and 10.32 bp, respectively, continuing this trend until Portfolio 7. The positive returns for portfolios 3 and 4 are 3.2 and 6.4 basis points, respectively. With the highest return of 10.32 basis points, Portfolio 7 eventually starts to fall. The lowest returns, 7.6 and 6.8, are found in Portfolios 8 and 9, while the lowest return, 6.7 basis points, is found in Portfolio 10. These findings suggest that the link between returns and trading volume, or liquidity, is not entirely linear. But in order to get a firm conclusion, we might need to conduct a thorough examination of the relationship between return and liquidity as a stand-alone study.

Table7: ANOVA RESULTS

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Grouos	7.36773	9	0.818636	0.870702	0.55075	1.88073
Within Groups	10342.2	11000	0.940203			
Total	10349.6	11009				

Table-7 shows F – test that returns are not significantly different than each other. As we can see that there is slight non-linearity between returns and liquidity which we unable to capture in F - Test.

Empirical Results of Regression

Further there are 10 regression tables associated with each and every portfolio individually conducted on the basis of liquidity which is traded-

volmes. The B of all regressions table will show the systematic risk existing in every portfolio. It will show that what is the connection between systematic risk i.e. beta and trading volumes i.e. liquidity.

Regression of P1

Table8: Regression Analysis of Portfolio 1

Dependent Variable: R_{p1}
Mothod: Least Squares
Date: 03/09/25 Time: 23:48
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.040993	0.026224	-1.5632	0.1183
Rm	1.278078	0.028066	45.5386	0.0000

R-Squared	0.655059	Mean dependent var	0.012096
Adjusted R-Squared	0.654743	S.D. dependent var	1.47469
S.E. of regression	0.866506	Akaike info criterion	2.553132
Sum squared resid	819.9101	Schwarz criterion	2.562268
Log likelihood	-1394.563	Hannan-Quinn criter.	2.556589
F-statistic	2073.762	Durbin-Watson stat	1.61448
Prob(F-statistic)	0.000000		

Regression of P2

Table9: Regression Analysis of Portfolio 2

Dependent Variable: R_{p2}
Mothod: Least Squares
Date: 03/09/25 Time: 23:51
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.026964	0.023967	-1.1251	0.2608
Rm	1.066738	0.025651	51.5868	0.0000

R-Squared	0.612966	Mean dependent var	0.017346
Adjusted R-Squared	0.612612	S.D. dependent var	1.272399
S.E. of regression	0.791948	Akaike info criterion	2.373184
Sum squared resid	684.8819	Schwarz criterion	2.38232
Log likelihood	-1296.132	Hannan-Quinn criter.	2.376641
F-statistic	1729.458	Durbin-Watson stat	1.543647
Prob(F-statistic)	0.000000		

Regression of P3

Table10: Regression Analysis of Portfolio 3

Dependent Variable: R_{p3}
Mothod: Least Squares
Date: 03/09/25 Time: 23:53
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001914	0.025238	-0.0759	0.9396
Rm	1.041219	0.02701	38.5488	0.0000

R-Squared	0.576417	Mean dependent var	0.041336
Adjusted R-Squared	0.576029	S.D. dependent var	1.28073
S.E. of regression	0.833923	Akaike info criterion	2.476474
Sum squared resid	759.4064	Schwarz criterion	2.485611
Log likelihood	-1352.632	Hannan-Quinn criter.	2.479932
F-statistic	1486.007	Durbin-Watson stat	1.675476
Prob(F-statistic)	0.000000		

Regression of P4

Table11: Regression Analysis of Portfolio 4

Dependent Variable: R_{p4}
Mothod: Least Squares
Date: 03/09/25 Time: 23:53
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.030504	0.02615	1.16654	0.2437
Rm	0.82395	0.027987	29.4409	0.0000

R-Squared	0.442507	Mean dependent var	0.06473
Adjusted R-Squared	0.441996	S.D. dependent var	1.15671
S.E. of regression	0.864059	Akaike info criterion	2.547474
Sum squared resid	815.2842	Schwarz criterion	2.556611
Log likelihood	-1391.468	Hannan-Quinn criter.	2.550931
F-statistic	866.7682	Durbin-Watson stat	1.681654
Prob(F-statistic)	0.000000		

Regression of P5

Table12: Regression Analysis of Portfolio 5

Dependent Variable: R_{p5}
Mothod: Least Squares
Date: 03/09/25 Time: 23:55
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.039277	0.022382	1.75489	0.0796
Rm	0.651822	0.023954	27.2114	0.0000

R-Squared	0.404079	Mean dependent var	0.066353
Adjusted R-Squared	0.403534	S.D. dependent var	0.95759
S.E. of regression	0.739559	Akaike info criterion	2.2363
Sum squared resid	597.2659	Schwarz criterion	2.245436
Log likelihood	-1221.256	Hannan-Quinn criter.	2.239757
F-statistic	740.4586	Durbin-Watson stat	1.721071
Prob(F-statistic)	0.000000		

Regression of P6

Table13: Regression Analysis of Portfolio 6

Dependent Variable: R_{p6}
Mothod: Least Squares
Date: 03/09/25 Time: 23:55
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.056802	0.019801	2.86862	0.0042
Rm	0.561367	0.021192	26.4893	0.0000

R-Squared	0.391196	Mean dependent var	0.08012
Adjusted R-Squared	0.390638	S.D. dependent var	0.838172
S.E. of regression	0.654291	Akaike info criterion	1.991297
Sum squared resid	467.4814	Schwarz criterion	2.000433
Log likelihood	-1087.239	Hannan-Quinn criter.	1.994754
F-statistic	701.6806	Durbin-Watson stat	1.624675
Prob(F-statistic)	0.000000		

Regression of P7

Table14: Regression Analysis of Portfolio 7

Dependent Variable: R_{p7}
Mothod: Least Squares
Date: 03/09/25 Time: 23:56
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.088188	0.018778	4.69644	0.0000
Rm	0.389391	0.020097	19.3758	0.0000

R-Squared	0.255838	Mean dependent var	0.104363
Adjusted R-Squared	0.255156	S.D. dependent var	0.718932
S.E. of regression	0.620469	Akaike info criterion	1.885145
Sum squared resid	420.4004	Schwarz criterion	1.894281
Log likelihood	-1029.174	Hannan-Quinn criter.	1.888602
F-statistic	375.422	Durbin-Watson stat	1.652493
Prob(F-statistic)	0.000000		

Regression of P8

Table15: Regression Analysis of Portfolio 8

Dependent Variable: R_{p8}
Mothod: Least Squares
Date: 03/09/25 Time: 23:56
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.068322	0.013862	4.92885	0.0000
Rm	0.214989	0.014836	14.4915	0.0000

R-Squared	0.161293	Mean dependent var	0.077253
Adjusted R-Squared	0.160525	S.D. dependent var	0.499911
S.E. of regression	0.458033	Akaike info criterion	1.278076
Sum squared resid	229.0954	Schwarz criterion	1.287212
Log likelihood	-697.1075	Hannan-Quinn criter.	1.281533
F-statistic	210.0043	Durbin-Watson stat	1.420802
Prob(F-statistic)	0.000000		

Regression of P9

Table16: Regression Analysis of Portfolio 9

Dependent Variable: R_{p9}
Mothod: Least Squares
Date: 03/09/25 Time: 23:59
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.059534	0.012179	4.8884	0.0000
Rm	0.177529	0.013034	13.6203	0.0000

R-Squared	0.145214	Mean dependent var	0.066908
Adjusted R-Squared	0.144432	S.D. dependent var	0.435059
S.E. of regression	0.402417	Akaike info criterion	1.019169
Sum squared resid	176.8375	Schwarz criterion	1.028305
Log likelihood	-555.4853	Hannan-Quinn criter.	1.022626
F-statistic	185.5133	Durbin-Watson stat	1.395639
Prob(F-statistic)	0.000000		

Regression of P10

Table17: Regression Analysis of Portfolio 10

Dependent Variable: R_{p10}
Mothod: Least Squares
Date: 03/10/25 Time: 00:02
Included Observations: 1094 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.065404	0.008429	7.75968	0.0000
Rm	0.074623	0.009021	8.2723	0.0000

R-Squared	0.05897	Mean dependent var	0.068504
Adjusted R-Squared	0.058109	S.D. dependent var	0.286973
S.E. of regression	0.27851	Akaike info criterion	0.283104
Sum squared resid	84.70434	Schwarz criterion	0.292241
Log likelihood	-152.858	Hannan-Quinn criter.	0.286562
F-statistic	68.43096	Durbin-Watson stat	1.089701
Prob(F-statistic)	0.000000		

CONCLUSION & DISCUSSION

Discussions

The primary findings of this thesis are that asset pricing models ought to incorporate market-wide liquidity. Evidence suggests that shares of highly liquid, or traded, companies have high betas, or significant levels of systematic risk (the top two portfolios' betas were greater than 1). This enables us to draw the conclusion that developing markets, like the Pakistan Stock Market, have a premium for liquidity risk. The same finding was backed up by (Miguel A. Martinez, 2004) for Spanish market and (Sensoy, 2017) for Turkey.

Evidence also indicates that systematic risk decreases with declining trading volume, thus investors and fund managers can reduce risk by include less liquid companies in their portfolios. Additionally, it will enable them to gain from diversification.

Conclusion

As High traded firms are more affected by systematic risk, thus investor and portfolio manager must take special care in making the highly traded firm part of their portfolio as Pakistan being emerging market is too much volatile towards any type of market news as well as macro-economic news. Thus, having highly liquid firms in portfolio of any investor make all the portfolios much more risky than market. By having high liquid firms as well as also low liquid firms allow investors to have the benefits of diversifications.

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