The Capital Asset Pricing Model: Empirical Evidence from Pakistan

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THE CAPITAL ASSET PRICING MODEL: EMPIRICAL EVIDENCE FROM PAKISTAN

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Abstract

The purpose of this study is to examine the validity of the CAPM in the capital markets of the Pakistan. The study used daily stock returns of the top 20 companies listed on the KSE (the main equity market in Pakistan) from 16th December 2008 to 26th February 2010. The market 100 index is used as a proxy for the market portfolio and 6-month Treasury bill rate is used as the risk free rate. The least squares method (OLS) is used to find the beta of the stocks in the first step and then find the regression equations in the second step. These regression equations are used to find the coefficients which are used to test the validity of CAPM. The findings of the study are not in support of CAPM. The critical conditions of the CAPM that the intercept term is equal to zero, there is a positive relation between the risk and return, and market risk premium is a significant explanatory variable for the determination stock's risk premium are rejected. The findings also show that residual risk plays some role for pricing risky assets. The market risk alone does not explain the stocks excess returns but also the unique risk contributes towards the excess returns. Tests may provide evidence against the CAPM but they do not necessarily constitute evidence in support of any alternative model.

Key words: CAPM, Pakistan

Jell codes: G12, G14, G15.

1. Introduction

Capital asset pricing model (CAPM) is a useful tool for estimating the cost of capital for firms and the return which the investors required by investing in firm's assets. The CAPM explains the trade off between the assets returns and their risk. The CAPM measures the risk of an asset by the covariance of its returns with the returns of the overall market (known as market portfolio). The main prediction of the model is that expected return on an asset is linearly related by the covariance of its returns with the return on the market portfolio. Each asset has two types of risk diversifiable (also known as unique) and non diversifiable (also called market risk).

According to these early theories an asset risk is measured by the standard deviation of its returns, the standard deviation is a measure of asset's total risk (diversifiable and non diversifiable).However, when the assets are combined into a portfolio the unique or diversifiable risk is eliminated but the market or the non diversifiable risk is not eliminated which is the main concern of the investors and the firm. The non diversifiable risk is the one for which investor require the risk premium.

The non diversifiable risk (or systematic risk) is measured by beta which is defined as the sensitivity of the stock returns towards the market return. The CAPM implication is that high returns are associated with high risk. The asset with high beta tend to offer high return and with low beta offer low returns. Beta measures the non diversifiable risk which is due to the macro economic variables (e.g. inflation, oil prices, political conditions etc.).

When the assets are combined in portfolio, portfolio return is equal to the weighted average return of individual assets but the portfolio standard deviation is less than the weighted average standard deviation of the individual assets. The decrease in the standard deviation is due to correlation between the assets, some assets tend to vary in same direction and others vary in opposite directions.

The CAPM has been subjected to extensive research and testing in past but researchers have come up with mixed findings. Sauer and Murphy (1992) have confirmed that CAPM is the best model for describing the German Stock Market data. In a more detailed study Hawawini (1993) could not confirm the validity of CAPM in equity markets in Belgium, Canada, France, Japan, Spain, UK and USA. The other studies which have tested CAPM for different countries include Lau, *et al*. (1975), for Tokyo Stock Exchange, Sareewiwathana and Molone (1985) for Thailand Stock Exchange and Bark (1991) for Korean Stock Market. Another response is that empirical inadequacy of standard CAPM may be due to a number of unexplained patterns in asset returns that has resulted to use attribute sorted portfolios of stocks to represent the additional risk factor in the standard model. The most prominent work in this regard is series of papers by Fama and French (1992, 1993, 1995, 1996, 1998 and 2004).

The purpose of this study is to examine thoroughly if the CAPM holds true in the capital markets of Pakistan. Statistical tests are conducted to check whether there is a positive return in the capital markets for bearing of market risk. According to this model beta alone explains the excess returns on the assets above the risk free rate. This model also predicts that residual risk play no role in explaining the expected returns on the assets and alpha (intercept term) is equal to zero.

The study is organized in the following sections. Previous empirical findings are presented in section 2. Section 3 includes data collection and methodology used in the study. The results and empirical findings are discussed in section 4 and section 5 concludes the study.

2. Literature Review

The CAPM developed by Sharpe (1964) and Lintner (1965) relate the asset excess returns to its beta a measure of systematic or non diversifiable risk. The investor requires the

return both for the time value of money and for the compensation of systematic risk, so the total expected return on an asset is equal to risk free rate (rate on the zero beta asset) and the risk premium required for the compensation of risk. The same relation also hold for portfolio returns i.e. the expected return on a portfolio equal to risk free rate plus the beta times the market risk premium. Lintner (1966) and Douglas (1969) are the earliest ones who conduct tests of CAPM on individual stocks in the excess-return form. They have found that the intercept has values much larger than the risk-free rate of return, while the coefficient of beta is statistically has a lower value, though it is statistically
Significant and the residual risk affect asset returns.

Early studies of CAMP based on the individual security returns don't have supporting evidence. Miller and Sholes (1972) encountered the same problems when applying the model on the individual asset returns. Black, Jenson and Sholes (1972) apply the model on all the stocks listed on New York stock exchange for the period 1931 to 1965 by forming portfolio and revising the linear relation between portfolio returns and their systematic risk. They develop a zero beta form of portfolio where risk free rate change in each period.

Extending the Black, Jensen and Scholes (1972) study, Fama and MacBeth (1973) provided evidence of a larger intercept term than the risk-free rate, that the linear relationship between the average return and the beta holds and that the linear relationship holds well when the data covers a long time period. Fama and McBeth (1973) have formed twenty portfolios of assets. Their study estimates the beta by time series regression on the monthly data for the period starting from 1935 to 1968. Their results show that the coefficient of beta is statistically significant and its value has remained small for many sub-periods. Fama and McBeth (1973) have validated the CAPM on all stocks listed on NYSE during 1935-1968, while Tinic and West (1984) who has used same NYSE data for the period 1935-1982 have found contrary evidence. Their study finds that residual risk has no effect on asset returns, however, their intercept is greater than risk-free rate and the results indicate that CAPM might not hold.

Subsequent studies on the single-factor CAPM also provide weak empirical evidence on these relationships. For example, Fama and French (1992), He and Ng (1994), Davis (1994) and Miles and Timmermann (1996). The mixed empirical findings on the return-beta relationship prompted a number of responses:

(i) The single-factor CAPM is rejected when the portfolio used as a market proxy is inefficient. For example, Roll (1977) and Ross (1977).

(ii) Even very small deviations from efficiency can produce an insignificant relationship between risk and expected returns (Roll and Ross, 1994; Kandel and Stambaugh, 1995).

In the early 1980's several studies shows that a single factor CAPM linear relation does not hold and beta alone cannot explain the excess return risk relationship. There are also other non market factors which contribute towards assets risk return relationship. This thing led towards the creation of multifactor model.

The first one of them is Basu's (1977) evidence that when stocks are sorted on
earnings-price ratios, those with high E/P have higher expected future returns than predicted by the CAPM. Banz (1981) investigate a size effect; when stocks are sorted on market capitalization (price times shares outstanding), average returns on small stocks are

higher than predicted by the CAPM. Bhandari (1988) finds that high debt-equity ratios (book value of debt over the market value of equity, a measure of leverage) are associated with returns that are too high relative to their market betas. Finally, Statman (1980) and Rosenberg, Reid, and Lanstein (1985) document that stocks with high book-to-market equity ratios (B/M, the ratio of the book value of a common stock to its market value) have high average returns that are not captured by their betas.

These all research shows that a single factor CAPM des not hold and there are other factors which also contribute towards assets returns.

Fama and French (1995) also predict that return on the portfolio of small stocks is higher than the return on the portfolio of large stocks (known as size effect) and also the return on the stocks with high book-to-market ratio is higher than the return on low book-to-market ratio stocks. According to Fama and Fench these two non market factors also contribute to stocks returns. Fama and French (1993) take a more indirect approach, perhaps more in the spirit of Ross's (1976) arbitrage pricing theory (APT). They argue that though size and book-to market equity are not themselves state variables, the higher average returns on small stocks and high book-to- market stocks reflect unidentified state variables that produce un diversifiable risks (co variances) in returns that are not captured by the market return and are priced separately from market betas.

The Fama and French [1992] study has been criticized. Amihudm, Christensen and Mendelson [1992] and Black [1993] support the view that the data are too noisy to invalidate the CAPM. In fact, they show that when a more efficient statistical method is used, the estimated relation between average return and beta is positive and significant. Black [1993] suggests that the size effect noted by Banz [1981] could simply be a sample period effect i.e. the size effect is observed in some periods and not in others.

Kraus and Litzenberger (1976), Friend and Westerfield (1980), Sears and Wei (1985) and Faff, Ho and Zhang (1998), among others, investigate the validity of CAPM by including higher order co-moments i.e. the third moment for skewness and fourth moment for kurtosis in asset valuation and find mixed results. Harvey and Siddique (2000) examined an extended CAPM by including systematic co-skewness. Harvey and Siddique reported that conditional skewness explains the cross-sectional variation of expected returns across assets and is significant even when factors based on size and book-to-market are included. It also has been documented that skewness and kurtosis cannot be diversified away by increasing the size of portfolios (Arditti, 1971).

Chung, Johnson and Schill (2001) observed that as higher-order systematic co-moments are included in the cross-sectional regressions for portfolio returns, the SMB and HML generally become insignificant. Therefore, they argued that SMB and HML are good proxies for higher-order co-moments. Ferson and Harvey (1999) claimed that many multifactor model specifications are rejected because they ignore conditioning information.

Grigoris Michailidis, Stavros Tsopoglou, Demetrios Papanastasiou, Eleni Mariola (2006) examined the Capital Asset Pricing Model (CAPM) for the Greek stock market in their study using weekly stock returns from 100 companies listed on the Athens stock exchange for the period of January 1998 to December 2002. In order to diversify away the firm-specific part of returns thereby enhancing the precision of the beta estimates, the securities where grouped into portfolios. The findings of this article are not supportive of the theory's basic statement that higher risk (beta) is associated with higher levels of return. The model does explain, however, excess returns and thus lends support to the linear structure of the CAPM equation. The results demonstrate that residual risk has no effect on the expected returns of portfolios. Tests may provide evidence against the CAPM but they do not necessarily constitute evidence in support of any alternative model.

In case of Pakistani market Iqbal and Brook (2007) find evidence of nonlinearity
in the risk return relationship and come to the conclusion that for Pakistani Stock market the unconditional version of the CAPM is rejected. Iqbal, *et al (*2008) have tested CAPM and Fama and French (1993) three-factor model for Pakistani market and conclude that the unconditional Fama-French model augmented with a cubic market factor perform the best among the competing models. Latter in their study Iqbal, *et al*. (2008) they find that the pricing model with higher co movements does not appear to be superior to the model with Fama-French variables.

Attia Y. Javid and Eitzaz Ahmad investigated the mean-variance capital asset pricing model, the conditional CAPM, the Conditional and unconditional CAPM Fama and French three factor model on the individual stocks traded on KSE, the main equity market in Pakistan. The empirical findings do not support the standard CAPM model as a model to explain assets pricing in Pakistani equity market. The critical condition of CAPM—that there is a positive trade-off between risk and return—is rejected and residual risk plays some role in pricing risky assets. The conditional version of CAPM finds some support which considers the time variation in market risk and risk premium. The information set includes the first lag of the following business cycle variables: market return, call money rate, term structure, inflation rate, foreign exchange rate, growth in industrial production, growth in real consumption, and growth in oil prices. In a nutshell, the results confirm the hypothesis that risk premium is time-varying type in Pakistani stock market and it strengthens the notion that rational asset pricing is working,

Although inefficiencies are also present in unconditional and conditional settings.

The above literature review indicates that CAPM is still a useful tool to analyze stock market returns in different countries, but it does not captures all the factors which affect stock returns in capital markets. So there is a need of extensive research in this area to uncover other relevant issues. The aim of this study is to investigate that whether the unconditional form of CAPM holds true in the capital markets of Pakistan by applying this model on the data obtained from KSE from 16th December 2008 to 26th February 2010.

3.1. Empirical methodology

The empirical analysis is started by testing the Mean variance CAPM developed by Sharpe (1964) and Lintner (1966). According to this model expected return on an asset j is written as:

$$E(R_j) = Rf + Bj\left\{E\left(Rm\right) - Rf\right\} \ldots\ldots\ldots\ldots 1$$

Where E(Rj) is the expected return on asset j, Rf is the risk free rate, E(Rm) is the expected return on the market portfolio, and Bj is a measure of asset's systematic risk and is defined as the sensitivity of the asset j return with the return on the overall market portfolio i.e. $Bj = \left({}^{\sigma j}\!\diagup_{\sigma m} \right)$

The equation 1 is rewritten in the risk premium form:

$$E(R_j) - Rf = Bj\left\{E\left(Rm\right) - Rf\right\}$$

$$rj = Bjrm.................2$$

where rj is the expected excess return (risk premium) on asset j and rm is the excess return (risk premium) on the market portfolio above the risk free rate. According to this equation expected excess return on an asset is directly proportional to its B i.e. a measure of systematic risk.

It is assumed that the ex-post distribution from which returns are drawn is ex-ante perceived by the investor. It follows from multivariate normality, that Equation (2) directly satisfies the Gauss-Markov regression assumptions. Therefore for empirical testing of CAPM is carried out on the basis of the equation:

$$rj = \gamma_0 + \gamma_i B_j + \varepsilon_j ....3$$

where γi is the market risk premium , γo is the intercept term added in the equation and εj is the error term in the equation.

The validity of CAPM is tested in this study by two important implications of the relationship between expected excess return on assets and their beta, a measure of systematic risk. First, the beta premium is positive, meaning that expected return on market portfolio exceeds the expected return on assets whose returns are uncorrelated with the market return (i.e. the risk free rate in Sharpe and zero beta portfolio return in Black version). Second, in Sharpe-Lintner version, assets portfolio uncorrelated with the market return have expected return equal to risk-free interest rate, and market risk premium is equal to the expected market return minus the risk-free rate.

Further if γo = 0 and γi > 0 then Sharpe- Lintner model hold and if γo des not equal to zero and γi > 0 then Black version hold.

The first part of the methodology required the estimation of betas for individual stocks by using observations on rates of return for a sequence of dates. The betas of individual stocks are estimated by using the equation 1:

After estimating betas through equation 1 we estimate the following regression equation for the 20 stocks traded on KSE:

$$\bar{r}_j - \bar{r}_f = \gamma_0 + \gamma_1 \hat{\beta}_j + \varepsilon_j$$

where $\bar{r}_j$ is the sample mean return on security j and $\bar{r}_f$ is the sample mean return on risk free assets, hence, $\bar{r}_j - \bar{r}_f$ is the sample average of excess return on each j =1, …., 20 securities. These equations are used to estimate the coefficients i.e. γo and γ1.and then the average of these coefficients for the entire testing period is used to apply the t-test

The estimated parameters allow us to test a series of hypotheses regarding the CAPM. The tests are:

1) Bo = 0, that is the market risk premium is not a significant explanatory variable for the determination of the asset's risk premium.
2) γ1 > 0 that is, there is a positive price of risk in the capital markets.
3) γo = 0, that is the intercept term is equal to zero, i.e. assets portfolio whose returns are uncorrelated with the market returns have expected return equal to risk-free interest rate.

3.2. Data and Sample Selection

The study uses the daily stock returns from the top 20 companies listed on the Karachi stock exchange for the period of 16th December 2008 to 26th February 2010. All the companies selected for the analysis have a continuous listing during this period on KSE. The selection was made on the basis of the trading volume and excludes stocks that were traded irregularly or had small trading volumes.

The KSE 100 index is used as a proxy for the market portfolio. This index is a market value weighted index, is comprised of the 100 most highly capitalized shares of the main market, and reflects general trends of the Pakistan's stock markets. The rate offered on the 6- month Treasury bills is used as the risk free rate.

4. Empirical Findings

The empirical validity of static version of standard CAPM is examined in this study by using daily returns of the top 20 individual stocks traded at Karachi Stock Exchange during the period December 2008 to February 2010. The test is carried out in excess return form above the risk-free rate and the market return is excess market return above the risk-free rate.

In order to test the CAPM hypothesis, it is necessary to find the counterparts to the theoretical values that must be used in the CAPM equation. In this study the return on the 6-month Treasury bill is used as an approximation of the risk-free rate. For the R*m* , the KSE 100 index is taken as the best approximation for the market portfolio.

The basic equation is $rj = \gamma_0 + \gamma_i B_j + \varepsilon_j$........................3

Where γo is the expected excess return on a zero beta portfolio and γ1 is the market price of risk, the difference between the expected rate of return on the market and a zero beta portfolio. In the first step betas of the 20 individual stocks are estimated by using equation1:

In table 1 the value of beta is calculated for the 20 individual companies' data and then a t-statistic (b – Bo)/Sb is calculated in order to test whether market risk premium is a significant explanatory variable for the estimation of individual stocks' risk premium. We develop a hypothesis that Bo = 0 i.e. the market risk premium is a not significant explanatory variable for the individual stock excess returns and an alternate hypothesis Bo # 0 i.e. the market risk premium is a significant explanatory variable for the determination of individual stock risk premium. The rejection of the null hypothesis might be viewed as evidence in support of CAPM.

The calculated values of t-statistics for the 20 stocks shows that market risk premium is not a significant explanatory variable for the estimation of the individual stock risk premium. For example at 10 % level of significance, we accept the null hypothesis for all stocks except the stock C(215) and draw the conclusion that market risk premium is insignificant for all the stocks except the stock C(215) for which the value of t statistics is 1.92378 (which lies in the rejection area). Similarly, at 5% and 1% level of significance we accept the null hypothesis i.e. the market risk premium is not a significant explanatory variable for the estimation of stock risk premium. So there are also the other factors which determine the individual stock risk premium.

In the second step, we develop the regression equations for the 20 individual stocks by using the betas calculated in first step and then these regression equations are used to estimates the intercept term γo and the coefficient of beta γi. Further the average of γo and γi for the 20 stocks is used to test the validity of CAPM (see table 2).

The t-statistic on the estimate of γ_0 can be used to test directly the null hypothesis that $\gamma_0 = 0$ against the alternative hypothesis that $\gamma_0 \neq 0$. Failure to reject this null hypothesis might be viewed as evidence in support of the CAPM.

Similarly, the t-statistic on the estimate of γ_1 corresponds to an analogous null hypothesis that $\gamma_1 = 0$, against the alternative hypothesis that $\gamma_1 > 0$. Rejection of null hypothesis is viewed as evidence in support of CAPM theory.

Since the results show that t statistics for γ_0 is -6.048730. At 10% level of significance, we reject the null hypothesis $\gamma_0 = 0$ which concludes that assets portfolio whose returns are uncorrelated with the market returns have expected return does not equal to risk-free interest rate. At 5% and 1% level of significance, again the null hypothesis is rejected which is viewed as an evidence against the CAPM which predicts that assets portfolio whose returns are uncorrelated with the market returns have expected return equal to risk-free rate. So the intercept term is different from the risk free rate of interest.

The t-statistics for the γ_1 is - 0.026658 and we test the hypothesis $\gamma_1 = 0$, against the alternative hypothesis that $\gamma_1 > 0$. At the 10% level of significance we accept the null hypothesis $\gamma_1 = 0$, which how that there is not a positive relation between the market risk and the excess returns. Again at the 5% and 1%, the same conclusions hold which are against the CAPM prediction that there is a positive price of risk in the capital markets.

So the above analysis shows that the standard CAPM does not explain the risk- return trade off in the capital markets of Pakistan.

R- square (coefficient of determination) is also calculated for the 20 stocks (table 3), which measures the proportion of variation in the dependent variable which is explained with the help of independent variable. In the CAPM context, R^2 measures the market (systematic) portion of the total risk. On the other hand, $(1-R^2)$ is the proportion of total risk that is specific (un-systematic). The R^2 it is evident that systematic portion of risk fails to explain individual stock's risk premium due to a small value of R-square. There are the other factors that are specific or unique to individual firms that explain the individual stock's risk premium as evident by a very high value of $(1-R^2)$ (see table 3).

The standard error of the residual in equation 1 can be interpreted as follows: since the left hand side of the equation reflects the effects of both specific and market risk on the return in company j, the β_j ($r_m - r_f$) term on the right hand side reflects only the market risk. It therefore follows that the estimated residual in equation 1 incorporates only the effects of specific risk. The standard error of the residual measures the standard deviation of the specific risk— portfolio risk that is not responsive to market fluctuations. A large standard error of the residual would indicate that a substantial amount of change in the stock j's risk premium could not be explained by the changes in the market risk premium. Looking again at table, it is evident that standard errors of regression equations are substantial; indicating that the large part of risk premium is explained by the non-market factors that are specific to individual firm. So CAPM main prediction that investor require the compensation in form of risk premium only for the systematic risk not for the unique risk is rejected here. But the rejection of this assumption may be due to the reason that we study the individual stocks not the portfolios in which the unique risk is eliminated. In the individual stocks return, the unique risk is not eliminated and it contributes towards the returns which investor demand on individual stocks.

5. Summary and Conclusion

The present study examined the validity of the CAPM in the capital markets of the Pakistan. The study used daily stock returns of the top 20 companies listed on the KSE from 16th December 2008 to 26th February 2010

The empirical findings indicate that the Sharpe-Lintner CAPM is an inadequate model, for explaining the risk-return trade off and the role which market risk plays for the determination of stocks excess returns, in the equity markets of the Pakistan. The prediction of the CAPM that market risk premium is a significant explanatory variable for the determination of the asset risk premium is rejected. Also the conditions of the CAPM that intercept term is zero and there is a positive price of bearing risk in the capital markets are rejected. The findings also shows a large value of residual error which indicate that the non market factors (i.e the unique factors) also contributes towards asset's excess returns.

The rejection of the standard CAPM as a model to explain risk-return trade off is due to a number of factors like incomplete information available in the markets, investing in the individual stocks rather than the portfolios, undiversified portfolios held by the investors, in short observation period.

The results of the tests conducted on data from the Karachi stock exchange for the period of 16th December 2008 to 26th February 2010 do not appear to support the standard CAPM. This analysis leads us to identify the other variables that can describe variation in asset's expected returns in a more complete manner.

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Table 1: Stocks beta coefficients estimates:

System: BETAS

Estimation Method: Least Squares

Sample: 1 to 912

Included observations: 905

Total system (balanced) observations 18100

	Coefficient	Std. Error	t-Statistic	Prob.
C(201)	0.95915	5.56999	0.17220	0.86330
C(202)	-0.86092	4.45208	-0.19338	0.84670
C(203)	0.74105	5.35787	0.13831	0.89000
C(204)	1.20333	5.55337	0.21669	0.82850
C(205)	-2.96548	4.19632	-0.70669	0.47980
C(206)	1.36931	5.71618	0.23955	0.81070
C(207)	7.52866	5.41040	1.39152	0.16410
C(208)	4.25954	4.42325	0.96299	0.33560
C(209)	-1.82748	5.99616	-0.30477	0.76050
C(210)	-1.07859	5.35560	-0.20140	0.84040
C(211)	-1.14531	6.14293	-0.18644	0.85210
C(212)	-2.33611	5.63194	-0.41480	0.67830
C(213)	2.01584	5.37284	0.37519	0.70750
C(214)	-0.81100	6.26186	-0.12952	0.89700
C(215)	10.42421	5.41860	1.92378	0.05440
C(216)	4.59275	7.31425	0.62792	0.53010
C(217)	1.77359	4.98027	0.35612	0.72180
C(218)	5.01663	5.71224	0.87822	0.37990
C(219)	0.05219	4.26862	0.01223	0.99020
C(220)	0.25991	5.49807	0.04727	0.96230

Table 2: Statistics of the estimation (equation 3):

Dependent Variable: RMRF
Method: Least Squares

Sample: 1 20
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Γo	-0.014534	0.002403	-6.048730	0.0000
Γi	-1.77E-05	0.000662	-0.026658	0.9790

R-squared	0.000039	Mean dependent var	-0.014560
Adjusted R-squared	-0.055514	S.D. dependent var	0.009577
S.E. of regression	0.009839	Akaike info criterion	-6.310215
Sum squared resid	0.001743	Schwarz criterion	-6.210642
Log likelihood	65.10215	F-statistic	0.000711
Durbin-Watson stat	2.126679	Prob(F-statistic)	0.979026

Table 3: Estimates of coefficient of determination and S. E. of regression:

Company	R-Square	S.E. of regression	Company	R-Square	S.E. of regression
C(201)	0.00010	1.11653	C(211)	0.00012	1.23138
C(202)	0.00013	0.89244	C(212)	0.00059	1.12895
C(203)	0.00007	1.07401	C(213)	0.00048	1.07701
C(204)	0.00016	1.11320	C(214)	0.00006	1.25522
C(205)	0.00170	0.84117	C(215)	0.01247	1.08618
C(206)	0.00020	1.14583	C(216)	0.00134	1.46617
C(207)	0.00657	1.08454	C(217)	0.00043	0.99832
C(208)	0.00316	0.88666	C(218)	0.00273	1.14504
C(209)	0.00032	1.20200	C(219)	0.00000	0.85566
C(210)	0.00014	1.07355	C(220)	0.00000	1.10211