

The Intertemporal Relationship between Risk and Return with Dynamic Conditional Correlation and Time -Varying Beta

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Abstract: The current paper examines intertemporal capital asset pricing model in Iran's Stock Market. Dynamic conditional correlation was used to estimate conditional variance and covariance portfolios with market returns. Time varying beta is estimated by Kalman Filter method. Based on the obtained results, risk aversion coefficients were between 0.013 and 0.28 and the average was 0.20. Significance of risk aversion and insignificance of intercepts revealed that there is ICAPM in Iran's Stock Market. The result also showed that assets with high correlation with market conditional volatilities have low expected returns in the next transaction period. In addition, assets having high correlation with exchange rate growth are induced by additional risk premium in exchange rate risks and will have high expected returns in the next transaction period.

JEL Classification: G11, G12

Keywords: *Dynamic Conditional Correlation, Dynamic Conditional Variances and Covariances, Intertemporal Capital Asset Pricing Model, Kalman Filter.*

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Investor type trading behavior and trade performance in Tehran Stock Exchange

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Abstract: In this study, trading patterns and constituents of trading performances of individual and institutional investors have been investigated in a weekly manner, using an Auto Regressive model and a Grinblatt & Titman portfolio performance measure spanning 2008-2012. The results show that while individual investors have a herding behavior, institutional investors take contrarian trading strategies. Evidence suggests that adopting the contrarian trading strategy by institutional investors resulted in better trading performance during most trading intervals, and the total net cash gains of this group has been achieved through a scheduled market timing. However, a poor stock selection has influenced part of the cash gain. On the other hand, adhering to the herding behavior by individual investors has resulted to a poor trading performance. Also, unsatisfactory market timing has undone the cash gains of a clever stock selection.

Keywords: *Contrarian Strategy, Herding Behavior, Momentum Strategy, Vector Auto Regression Model.*

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The Effects of Corporate Governance Mechanisms and Financial Variables on the Financial Restatement of the Firms Listed on the Tehran Stock Exchange

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Abstract: This paper examines the effects of Corporate Governance (board structure and ownership structure) and some financial variables on financial statement restatements. For this purpose, citing firms have been divided into two groups: a group comprising firms (48 firms) that have maximum amount of the annual adjustment (more than 5% of EBIT) and a group (control group; 46 firms) comprising firms that have minimum amount of the annual adjustment. They were subsequently analyzed using a t-test and logistic regression. The results show that there is a positive relationship between CEO duality and financial statement restatement, and there is a positive relationship between board size and financial statement restatement. Other independent variables have been studied, though no significant relationship has been observed. Among the financial variables, there was shown a positive relationship between Gearing ratio and financial statement restatement; moreover, bankruptcy probability has a negative relationship with financial statement restatement.

Keywords: *Annual Adjustment, Corporate Governance, Financial Restatement Statement.*

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Estimation of Value at Risk of Return in Tehran Stock Exchange Using Wavelet Analysis

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Abstract: Financial companies are constantly exposed to the dangers of risk. In the last few years for various reasons, measuring value at risk (VaR) has become increasingly important for financial firms. The study of multiple measures of risk, VaR measure with a new approach provides the ground for calculation of market risk. Common approaches to risk measurement due to complicated, nonlinear and changing nature of risk have both weak explanatory power and limited functionality. Thus, the current study presents a new semi-parametric paradigm combining wavelet analysis and GARCH models which uses wavelet analysis to deal with properties of multi-scale data. Experimental results show the superiority of the proposed method in this paper compared to traditional approaches, such that this method leads to a higher degree of reliability and accuracy of the estimates of the value at risk.

Keywords: *Tehran Stock Exchange, Value at Risk, Wavelet Analysis.*

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Cross Sectional Variation in Cash Flow Asymmetric Timeliness and Its Effect on Conditional Conservatism

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Abstract: The current study aims to review the cross sectional variation in cash flow asymmetric timeliness and its effect on conditional conservatism. In this study, data from 120 firms in Tehran Stock Exchange for the period spanning 1384- 1390 were examined. The regression model used in this research is panel data method with fixed effects approach. The most common measure of conditional conservatism in accounting is asymmetry timeliness in recognizing profits and losses. Nevertheless, this measure combines both asymmetry timeliness of accruals and cash flows from operation. Given that asymmetry timeliness of operating cash flow does not belong to the domain of profits and losses, it causes variation in the test of conservative. In this research, with respect to good and bad news, it was shown that asymmetry timeliness of operating cash flow is cross sectionally different with lifecycle variable of company (size, age, growth and capital expenditure). The results show that conservatism is higher in the early stages of the company lifecycle.

Keywords: *Asymmetry Time, Conservatism, Corporate Life Cycle, Operating Cash Flow.*

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A Review of Investors' Reaction to Unexpected Events in Tehran Stock Exchange

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Abstract: Unexpected economic and political events are considered important elements impacting investment decisions of the investors during stock transactions and changing the stock price in desirable or undesirable ways. The current study aims to provide a review on investors' reaction to unexpected events in Tehran Stock Exchange market. For this purpose, the daily returns of the period spanning 1386-1391 have been reviewed as a sample of investors' behavior based on the uncertain information hypothesis. The findings indicate that occurrence of unexpected events will increase returns oscillation. Also, the results show that, regarding the desirable news, the reaction of investors corresponds to prediction of uncertain information hypothesis, that is, the unusual revenue of stocks after desirable information is positive, but it would not verify the hypothesis of the prediction of undesirable news. In other words, behavior, after the desirable news, will follow the uncertain information hypothesis; however, after the bad news, it would not follow this hypothesis. Also, for both, desirable and undesirable events, moderating and adjusting the stock price have gone downward.

Keywords: *Reaction of Investors, Stock Exchange, Uncertain Information Hypothesis, Unexpected Events.*

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Optimal Design of Securitization in a Principal-agent Relationship Based on Bayesian Inference for Moral Hazard

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Abstract: In the securitization process, by selling the mortgage loans to risk-lover investors, originator can allocate the mortgage loans risk to them. In this case, originator may not have an incentive to screen out borrowers, resulting in the moral hazard problem. This paper, within a principal-agent framework, analyzes this agency problem. Investor, to reduce asymmetric information, uses compensation scheme for giving incentives to the originator and by using the Bayes' rule, deals with inferring various dimensions of undertaken effort, and incorporates her joint posterior beliefs of the pooled loans' credit position data and inferred various dimensions of effort into the designing contract problem. The results indicate that the shape of optimal contract is a function of the information content of investors' observations and inferred knowledge about efforts, suggesting that using additional information prevents originator's opportunism, the originator more likely performs the obligated tasks when lending the loans to the applicants.

Keywords: *IBP Stochastic Process, Moral Hazard, Mortgage-Backed Securities, Nonparametric Bayesian Inference, Optimal Design of Multi-Task Compensation Scheme.*

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Portfolio Optimization with Simulated Annealing Algorithm

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Abstract: The Markowitz issue of optimization can't be solved by precise mathematical methods such as second order schematization, when real world condition and limitations are considered. On the other hand, most managers prefer to manage a small Portfolio of available assets in place of a huge Portfolio. It can be analogized to cardinal constrains, that is, constrains related to minimum and maximum current assets on Portfolios. This study aims to solve the problem of optimizing Portfolios with cardinality constrains, using simulated annealing algorithm. Therefore, by using the information of 50 companies which have been more active in Tehran's exchange stock from April 2010 to April 2012, Portfolios' efficient frontier has been supposed from 10 to 50. Results shows that first, simulated annealing algorithm has been successful in solving the above problem, and second, by selecting shares appropriately and determining suitable weights from it, smaller Portfolios with more suitable performances can be selected.

Keywords: *Cardinality Constrains, Efficient Frontier, Mean-Variance Model, Optimization Portfolios, Simulated Annealing.*

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Prediction of Stock Market Crash Using Self-organizing Maps

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Abstract: Market crash is a phenomenon which occurs in stock markets occasionally and leads to loss of the investors' wealth and assets in a relatively short period of time. Therefore, attempts for prediction of this phenomenon are of much importance for the investors, financial institutions and government. To this date, numerous and varied studies have been carried out for predicting and modeling stock markets and their crash. Each of these studies has tried to fulfill this important task more precisely from a different point of view. A brief review of the theories and models presented for prediction of stock market crash indicates that there is no agreement among the researchers in relation to the observed patterns of variables such as trading volume, returns, volatility, fundamental factors, behavioral indicators, etc. in the stock markets in the pre-crash period. One of the very suitable methods proposed for finding the existing patterns in the data is the self-organizing map neural networks method which is considered as a non-parametric and non-linear method. In this study, a method is proposed for prediction of the crash in the Iranian stock market using the self-organizing map neural networks. The results of implementation of the model and out-of-sample prediction indicate that the model has a relatively acceptable performance in prediction of the pre-crash periods in the stock market.

Keywords: *Neural Networks, Prediction, Self-organizing Maps, Stock Market Crash.*

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Examining the Relationship between Board Structures and Financing Constraints for the Companies Listed on Tehran Stock Exchange

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Abstract: The purpose of this research is to study the effects of board of director structure on financing constraints for the companies listed on Tehran Stock Exchange (TSE). For this purpose, indigenised Kaplan and Zingales (KZ) index has been used as a proxy for financing constraints. The population consists of 56 companies of TSE spanning 2007-2013 and the multivariate logistic regression is used. The results suggest that there is no significant relationship between board structure (including independence, size, degree, changes in the membership and CEO duality) and financing constraints. In addition, the research results concerning control variables show that there is a significant negative relationship between firm size and financing constraints, but there is a significant positive relationship between firms' age and their financing constraints.

Keywords: *Board Degree, Board Independence, Board Size, Financing Constraints, Firm Age.*

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