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# **High-Low Price Prediction and Technical Analysis**

A thesis presented in partial fulfilment of the requirements for the degree of

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## Abstract

High and low prices convey additional information beyond closing prices, based on the fact that the improved high-low volatility estimator enjoys higher efficiency than the standard close-to-close variance. Empirical results show that a positive risk-return relationship is exhibited more frequently when predicted high-low prices are applied rather than historical data by taking advantage of the new volatility estimator in 48 countries. In this study, models using historical data contain (1) historical closing prices, (2) historical high-low prices, and (3) the Risk Aversion method, while the three high-low prices prediction approaches include (1) Engle and Granger two-step linear model, (2) Engle and Granger non-linear model, and (3) MIDAS technique. Corporate governance variables, associated with laws and enforcement, have weak explanatory power over investors' perception of risk. This study also contributes to the validity of technical analysis by showing that high and low prices forecasts are able to generate valuable trading signals and positive returns based on range-based strategy and midpoint strategy. The superior investment performance benefits investors in trading both stock indices and options in U.S. financial markets.

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## Table of Contents

Abstract .....	i
Acknowledgements .....	ii
Table of Contents .....	iii
Chapter 1 Introduction .....	1
1.1 Background.....	1
1.2 Contribution.....	5
1.3 Preliminary results .....	6
1.4 Outlines of the thesis .....	6
Chapter 2 Literature Review .....	7
2.1 Advantages of high-low prices .....	7
2.2 Variance construction based on high-low prices .....	7
2.3 High-low prices' prediction models.....	9
2.3.1 Engle and Granger ordinary least squares model.....	9
2.3.2 Engle and Granger non-linear least squares model.....	11
2.3.3 MIDAS .....	12
2.4 Corporate governance.....	13
2.5 Technical analysis .....	15
2.5.1 Trading stock indices.....	15
2.5.2 Trading options .....	19
2.6 Hypotheses Development .....	20
Chapter 3 Data.....	22
Chapter 4 Methodology.....	24
4.1 Historical data.....	24

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4.2 High-low prices' forecasting models .....	25
4.2.1 Engle and Granger ordinary least squares model.....	25
4.2.2 Engle and Granger non-linear least squares model.....	30
4.2.3 MIDAS .....	31
4.3 Risk aversion method .....	34
4.4 Technical analysis .....	35
4.4.1 Trading stock indices.....	35
4.4.2 Trading options: .....	36
Chapter 5 Empirical Results.....	39
5.1 Risk and return relationship.....	39
5.1.1 Historical data .....	39
5.1.2 Forecast high-low prices .....	42
5.2 Corporate governance.....	47
5.3 Technical analysis .....	53
5.3.1 Trading stock indices.....	53
5.3.2 Trading options .....	67
Chapter 6 Conclusions .....	70
References .....	72
Appendix A: .....	79
Appendix B: .....	81

## List of Tables

Table 5.1 Summary Risk Aversion Coefficients Using Historical Data .....	39
Table 5.2 Summary Risk Aversion Coefficients Using Historical Closing Prices .....	41
Table 5.3 Summary Risk Aversion Coefficients Using Forecasted High-low Prices ...	43
Table 5.4 Summary Risk Aversion Coefficients For Countries With Strong Persistence .....	46
Table 5.5 Results Summary for Four Legal Origins .....	48
Table 5.6 Results Summary for Investor Protection and Law Enforcement .....	50
Table 5.7 Results Summary for Securities Law Factors .....	51
Table 5.8 Summary Statistics for Monthly and Daily Returns .....	54
Table 5.9 Results for Co-integration Relationship Pre-test .....	55
Table 5.10 Results for Simple Technical Trading Strategies from Two Estimation Periods .....	58
Table 5.11 Summary Results for Range-based Strategy .....	61
Table 5.12 Summary Results for Midpoint Strategy .....	64
Table 5.13 Results Summary for Trading Options .....	69

## Appendix

Appendix A .....	79
Appendix B .....	81