

The Righteousness of CAPM for Capturing Bankruptcy Risk

By

Ahmed Islam

01-297142-001



A thesis presented to Bahria University, Islamabad in partial fulfillment of the requirements for the degree of MS Finance

June 2016

Copyright 2016

Ahmed Islam

All Rights Reserved

BAHRIA UNIVERSITY, ISLAMABAD

**APPROVAL SHEET
SUBMISSION OF HIGHER RESEARCH DEGREE THESIS**

Candidate's Name: AHMED ISLAM

Discipline: MS FINANCE

Faculty/Department: DEPARTMENT OF MANAGEMENT SCIENCES

I hereby certify that the above candidate's work, including the thesis, has been completed to my satisfaction and that the thesis is in a format and of an editorial standard recognized by the faculty/department as appropriate for examination.

Signature(s):

Principal Supervisor: Dr. Taqadus Bashir

Date: _____

The undersigned certify that:

1. The candidate presented at a pre-completion seminar, an overview and synthesis of major findings of the thesis, and that the research is of a standard and extent appropriate for submission as a thesis.
2. I have checked the candidate's thesis and its scope, format; editorial standards are recognized by the faculty/department as appropriate.

Signature(s):

Dean/Head of Faculty/Department:

Date: _____

DECLARATION OF AUTHENTICATION

I, Ahmed Islam, MS. (Finance) Student in the Department of Management Sciences, Bahria University. Islamabad, certify that the research work presented in this thesis is to the best of my knowledge my own. All sources used and any help received in the preparation of this dissertation have been acknowledged. I hereby declare that I have not submitted this material, in either completely or in part, for any other degree at this or other institution.

Signature: _____

Name: Ahmed Islam

ACKNOWLEDGEMENTS

All praise be to Allah who has enabled me to undertake and complete this dissertation. He has blessed me with the company of people who are unique in their own way and have been of immense help to me throughout this dissertation.

I would like to extend my heartiest gratitude to my supervisor, Dr. Taqadus Bashir. Her academic knowledge, extensive experience and support have been invaluable for me throughout the whole process of writing the thesis.

Lastly, I would wish to thank my parents for their endless support and encouragement during my studies.

Ahmed Islam

DEDICATION

This dissertation is dedicated to my parents for their love and support.

ABSTRACT

The important risks that investors and corporate managers face are liquidity risk and bankruptcy risk. Capital Asset Pricing Model is one of the most applied methods developed for corporate managers to calculate the cost of equity and to examine risk-return relationship on financial securities, but it only considers systematic risk and ignores unsystematic risk under the assumption of diversification. Bankruptcy risk plays a key role in determining the cost of capital while investing in a specific firm; however, the current methodology of CAPM fails to capture bankruptcy risk, as it is mainly an unsystematic risk. This study highlighted the importance of making bankruptcy risk a part of total risk and investigate the validity of beta as per the current methodology of CAPM. Moreover, the study explored the possibility of replacing systematic risk and unsystematic risk with liquidity risk and bankruptcy risk. The results of the test to check validity of beta suggested that standard beta is unable to capture bankruptcy risk and results of Cumulative Risk Measurement test helped to identify the nature of risk i.e. liquidity risk or bankruptcy risk and the extent of these risks.

KEYWORDS: CAPM, Systematic Risk, Unsystematic Risk, Beta, Bankruptcy Risk and Liquidity Risk.

TABLE OF CONTENTS

APPROVAL SHEET	iii
DECLARATION OF AUTHENTICATION.....	iv
ACKNOWLEDGEMENTS	v
DEDICATION.....	vi
ABSTRACT.....	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	x
CHAPTER 1	1
INTRODUCTION.....	1
1.1. PROBLEM STATEMENT:.....	4
1.2. RESEARCH QUESTIONS:.....	5
1.3. RESEARCH OBJECTIVES:.....	5
1.4. CONTRIBUTION TO THE EXISTING LITERATURE/ RESEARCH GAP:.....	5
1.5. SIGNIFICANCE OF THE STUDY:	5
CHAPTER 2	6
LITERATURE REVIEW AND THEORY FORMATION	6
2.1. LITERATURE REVIEW:	6
2.2 RESEARCH HYPOTHESIS AND CONCEPTUAL FRAMEWORK:.....	12
RESEARCH METHODOLOGY	14
3.1 SAMPLE:.....	14
3.2 PROCEDURES:.....	14
3.3 UNIT ROOT TEST:	15
3.4 CO-INTEGRATION TEST:.....	15
3.5 CAUSALITY TEST:.....	16
3.6 VALIDITY OF BETA:	16
3.7 CUMULATIVE RISK MEASUREMENT:.....	16
CHAPTER 4.....	17
DATA ANALYSIS	17
4.1. CRITERIA AND RATIONALE FOR SELECTING THE COMPANIES:	17
4.2. COMPANIES AND THE NATURE OF RISK:.....	19
4.3 UNIT ROOT TEST:	20

4.3.1 UNIT ROOT TEST OF SHARE PRICES:	20
4.3.2 UNIT ROOT TEST ON FIRST DIFFERENCE OF SHARE PRICES:	20
4.4. JOHANSAN CO-INTEGRATION TEST:	21
4.5. GRANGER CAUSALITY TEST:	22
4.6. VALIDITY OF BETA:	24
4.7. CUMULATIVE RISK MEASUREMENT:	25
CHAPTER 5	28
FINDINGS AND CONCLUSION	28
5.1 FINDINGS:	28
5.2. CONCLUSION:	29
5.3 RECOMMENDATIONS	30
REFERENCES	31
APPENDIX A	35

LIST OF TABLES

Table 1	13
Table 2	17
Table 3	18
Table 4	19
Table 5	20
Table 6	21
Table 7	22
Table 8	23
Table 9	24
Table 10	26