STRUCTURE FLAW AND SHADOWOLOGY: ROOT CAUSE OF FINANCIAL CRISES

HWA DONG LIANG

DOCTOR OF BUSINESS ADMINISTRATION
CITY UNIVERSITY OF HONG KONG
AUGUST 2010
CITY UNIVERSITY OF HONG KONG
香港城市大學

Structure Flaw and Shadowology: Root Cause of Financial Crises
結構性缺陷與隱行為——經濟危機的根源

Submitted to
College of Business
商學院
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Business Administration
工商管理學博士學位

by

Hwa Dong Liang
梁華棟

August 2010
二零一零年八月
Abstract

Whenever there was a major financial crisis, regulators and investors always tried to identify and solve the problems. However, such efforts only touched the surface, not the root or the structural issues where problems were created. Therefore, people never learned the lessons or intentionally ignored the truth, then, crises and debacles just repeated again and again. This study tries to discuss this question by perspective of dark side nature of human beings, namely shadowology, which had already investigated in Bible. Several cases of financial bubbles are studied and analyzed for exploring structure flaws and framework of shadowology. Existing researches on shadow system behind the bubble is summarized to derive the research problem in this study. In the third part, a game theory model is formulated to discuss structure problem that effect equilibrium among four main participants who need to choose between acting sunshine and shadow activities. We observe that when coalition is permitting, collusion and shadow activities are the preferable choices against investors. In the fourth part, a research model is constructed to investigate the impact of shadow activities to the efficiency of financial markets. A survey is conducted and data is collected through questionnaire. Quantitative methods such as descriptive statistics, factor analysis, reliability analysis, validity analysis and structural equation
model analysis are applied to the data. According to the refined research model, most hypotheses are supported and important factors leading to market failure are revealed.

A case study is conducted to verify the active shadow activities revealed in the model.

In the final part of the thesis, several policy recommendations are proposed.
Contents

Chapter 1  Introduction ................................................................................................1
1.1 Background ........................................................................................................1
1.2 Research Problem and Research Issues .........................................................15
1.3 Significance of the Problems .........................................................................18
1.4 Research Purpose and Objectives ..................................................................19
1.5 Outline of the research ...................................................................................22

Chapter 2  Case Study ................................................................................................24
2.1 Subprime Scandal and Financial Tsunami .....................................................24
2.2 Ponzi Scheme and Madoff Incident ...............................................................32
2.3 Taiwan Bond Fund Market and China Money Market Fund .........................35
2.3.1 Taiwan Bond Fund Market .........................................................................35
2.3.2 China Money Market Fund (MMF) ...........................................................37
2.3.3 Comparison between Taiwan Bond Fund and China MMF .......................39

Chapter 3  Literature Review .....................................................................................42
3.1 What is a bubble? ...........................................................................................42
3.2 Shadow behind big bubbles ...........................................................................44
5.2.2 Data collection ............................................................................................ 91

5.3 Data analysis .................................................................................................. 92

5.3.1 Data preprocessing ..................................................................................... 92

5.3.2 Reliability analysis ..................................................................................... 99

5.3.3 Validity analysis ....................................................................................... 104

5.3.4 Model analysis .......................................................................................... 107

5.4 Discussion .................................................................................................... 113

5.5 Future research ............................................................................................. 115

Chapter 6  Structure and agency: flaw in financial market................................. 117

6.1 Endogenous structure flaw in financial market .......................................... 118

6.2 Exogenous structure flaw in financial market ............................................. 145

Chapter 7  Conclusion and further research.......................................................... 158

Bibliography .............................................................................................................. 174

Appendix A ................................................................................................................ 189
List of Tables

Table 5 - 1: Variable definition ................................................................. 90
Table 5 - 2: Analysis result of questionnaire collection ..................... 92
Table 5 - 3: KMO value .................................................................... 94
Table 5 - 4: KMO and Bartlett’s test ..................................................... 94
Table 5 - 5: Result of principal component analysis .......................... 95
Table 5 - 6: Modified result of principal component analysis .......... 96
Table 5 - 7: Descriptive statistics of the sample data ......................... 98
Table 5 - 8: Reference values of reliability ....................................... 100
Table 5 - 9: Reliability analysis of Governance ................................ 101
Table 5 - 10: Reliability analysis of System ...................................... 101
Table 5 - 11: Reliability analysis of Media ....................................... 102
Table 5 - 12: Reliability analysis of Communication ...................... 102
Table 5 - 13: Reliability analysis of Culture ...................................... 102
Table 5 - 14: Reliability analysis of Self-interest ............................... 102
Table 5 - 15: Reliability analysis of internal surveillance insufficiency .. 103
Table 5 - 16: Reliability analysis of External surveillance insufficiency .... 103
Table 5 - 17: Reliability analysis of Erroneous behavior.................................103
Table 5 - 18: Reliability analysis of Market failure .........................................103
Table 5 - 19: Reliability analysis of Financial bubble .....................................104
Table 5 - 20: Item factor loading and t test ......................................................105
Table 5 - 21: Result of hypothesis test .............................................................110
Table 5 - 22: Model fit indices .........................................................................113
Table 6 - 1: U.S. mortgage loan, bond issuance, securitization ratio ...............119
Table 6 - 2: List of U.S government rescue plan ..............................................123
Table 6 - 3: Members of the Board and their duty in the special committee ... 141
List of Figures

Figure 1 - 1 Outline of the research ................................................................. 23
Figure 2 - 1 NAV of thirty bond funds in Taiwan market ......................... 37
Figure 3 - 1 Different estimates of liquidity .................................................. 52
Figure 5 - 1 Research model of the shadow system in financial market .... 90
Figure 5 – 2 Path diagram of the derived research model ....................... 109