## **Table of Contents**

Table of Contents	
	Page
Acknowledgement	iii
Thai Abstract	iv
English Abstract	vi
List of Tables	xi
List of Figures	xiii
Chapter 1 Introduction	
1.1 Background and Significant of the Study	1
1.2 Purposes of the Study	10
1.3 Organization of the Study	10
Chapter 2 Related Theories and Literature Reviews	
2.1 The Theoretical model theories	-11
	11

2.2 The Econometric model Theories

2.2.1 CLS (Conditional Least Squares) method

17

	2.2.2	Nonlinear method models	17
	2.2.3	Copulas	21
2.3	Literat	ure Reviews	30
Chapter 3 Med	thodol	ogy	
3.1	Econor	metric model	46
	3.1.1	Data processing and testing	47
502	3.1.2	Linear and Nonlinear modeling and selection	51
	3.1.3	Copulas Theory and modeling	55
		3.1.3.1 Rank Correlation	56
		3.1.3.2 The dependence of upper tail and lower tail	57
		3.1.3.3 Maximum likelihood estimation method	58
		3.1.3.4 Generalized Pareto Distribution (GPD) models	59
		3.1.3.5 Copula modeling	59
Chapter 4 Em	pirical	Results	
4.1	Data		65
ลิขสิทริม	4.1.1	Unit root test results	73
C:	4.1.2	Two-Sample Kolmogorov-Smirnov test	74
Copyright 4.2	The ap	propriate forecasting models selection of People's Republic	
All ri	of Chin	a's exchange return in percentage and that of Thailand	76

4.2.1 The appropriate forecasting model of People's Republic of

	China's exchange return in percentage	76
	The appropriate forecasting model of Thailand's exchange return in percentage	79
4.3 Copula	a modeling	85
4.3.1	The dependence measures of People's Republic of China's exchange return and Thailand's exchange	
	return based on Empirical copulas approach	90
4.3.2	The dependence measure of People's Republic of	
	China's exchange return and Thailand's exchange	
	return based on Student's t copula approach	91
Chapter 5 Conclusion	1	
5.1 Conclu	sions	93
5.2 Recomm	mendation	95
5.2.1	Policy suggestions	95
5.2.2	Discussions	98
5.2.3	Future Researches	102
References		103
Appendices		107
Appendix A The app	ropriate forecasting models	108
Appendix B Depende	nce measures	113
Curriculum vitae		117

	List of Tables	
Tal	ble	Page
1.1	China's exchange rate policies history	7
2.1	Summary of literature reviews for Non-linear models	42
2.2	Summary of some of the literature reviews for Copulas	45
4.1	The descriptive statistics of People's Republic of China's exchange rates	
	return in percentage and that of Thailand from 2006 to 2012	67
4.2	Results of People's Republic of China's exchange return in percentage	
	Unit Root test	73
4.3	Results of Thailand's exchange return in percentage Unit Root test	74
4.4	Two sample Kolmogorov-Smirnov test for People's Republic of China's	
	exchange return in percentage	75
4.5	Two sample Kolmogorov-Smirnov test for Thailand's exchange return	
	in percentage	75
4.6	The model selection of People's Republic of China's exchange	
	return in percentage based on AIC, BIC and MAPE (%)	77
Copyrig 4.7	Appropriate forecasting model summary for People's Republic of China	versity

4.8	The model selection of Thailand's exchange return in percentage based on A	IC,
	BIC and MAPE (%)	79
4.9	Appropriate forecasting model summary for Thailand	80
4.10	Copula selection based on AIC and BIC	87
4.11	The dependence measure of People's Republic of China's exchange return	
	and Thailand's exchange return based on Empirical Copula, 2006-2012	90
4.12	The dependence measure of People's Republic of China's exchange return	
	and Thailand's exchange return based on Student's t Copula, 2006-2012	91
5.1	Time-varying copulas selection based on AIC and BIC	99

## ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่ Copyright<sup>©</sup> by Chiang Mai University All rights reserved

## **List of Figures**

List of Figures	
Figure	Page
1.1 China's economic growth rates, 1998-2011	2
1.2 Average exchange rates of USD/CNY, 1998-2011	3
1.3 China's exchange growth rates, 1998-2011	3
1.4 Combination figure, 1998-2011	4
1.5 Average exchange rates of USD/THB, 1998-2011	5
1.6 Thailand's exchange growth rates, 1998-2011	5
4.1 The historical daily data of People's Republic of China's exchange	
return in percentage during the periods of 2006 to 2012	69
4.2 The historical daily data of Thailand's exchange return in percentage	
During the periods of 2006 to 2012	70
4.3 People's Republic of China's nominal exchange rates from 2006 to 2012	71
4.4 Thailand's nominal exchange rates from 2006 to 2012	72
4.5 Exchange policy review of People's Republic of China, 2006-2012	83
4.6 Exchange policy review of Thailand, 2006-2012	\\\ 84_\rsin\\
5.1 Dependence measures based on Time-varying SJC Copula	101