

**RISK MANAGEMENT IN PRECIOUS METALS  
PORTFOLIO USING GARCH MODEL,  
EXTREME VALUE THEORY  
AND COPULA MODEL**



**KRITSANA KHEMAWANIT**

**MASTER OF ECONOMICS**

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**GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY  
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**KRITSANA KHEMAWANIT**

**A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ECONOMICS**

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THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ECONOMICS

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