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# Abstract

The introduction of the Template

This dissertation template is organized as follows:

- Only *main.tex* is outside any files.
- Document *auxiliary* includes parts not directly correlated with the body of the paper, like cover, acknowledgements, **preamble**, etc.
- Document *figure* contains figures.
- Document *sections* contains the body of the thesis, which includes but not are limited to abstract, introduction, method, conclusion and so on.
- Document *notes* is for taking notes. Normally two files will be included:  
(a) *terminology sheet.xlsx* concludes the terminologies writers should keep consistency during the writing. (2) *table.xlsx* stores the tables which will be export to the L<sup>A</sup>T<sub>E</sub>X. You can modify them and replace the code any time.

T.B.C.

Charley HUANG

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# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Research background and literature review . . . . .	1
1.2	Research objective and framework . . . . .	1
<b>2</b>	<b>Prerequisite knowledge</b>	<b>2</b>
2.1	Mathematical formulars . . . . .	2
2.1.1	数学字符 . . . . .	2
2.1.2	数学公式 . . . . .	2
2.2	Itemize . . . . .	3
2.3	Graphs . . . . .	3
<b>3</b>	<b>Empirical study</b>	<b>5</b>
3.1	Data acquisition and processing . . . . .	5
3.2	Basic statistics and tests . . . . .	5
3.2.1	Summary of datasets . . . . .	5
3.2.2	Test of normality . . . . .	5
3.2.3	Test of unit root . . . . .	5
3.3	Residuals analysis . . . . .	5
3.4	Prediction . . . . .	5
<b>4</b>	<b>Discussion and conclusion</b>	<b>6</b>

<b>References</b>	<b>7</b>
<b>Appendices</b>	<b>8</b>

## List of Figures

1	Nanami	4
---	--------	---

## List of Tables

1	Title of the table . . . . .	9
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# **1 Introduction**

## **1.1 Research background and literature review**

Fama (1965)<sup>[1]</sup>

## **1.2 Research objective and framework**



## 2 Prerequisite knowledge

### 2.1 Mathematical formulars

#### 2.1.1 数学字符

1. 行内公式用  $\{a_t\}$ 。
2. 单行公式用

$$a_t = \sigma_{t|t-1} \varepsilon_t$$

#### 2.1.2 数学公式

1. 数学公式
2. 行内公式用  $\{y_t\}$ 。
3. 单行公式用

$$f(z) = \frac{\kappa e^{-0.5|z|^\kappa}}{2^{1+\kappa^{-1}} \beta \Gamma(\kappa^{-1})}$$

\* 表示不标号

equation 环境的好处是上下伸缩性更好。

4. 多行公式用

按等号对齐

$$P_t = 2 - 1$$

$$= 1$$

各行居中

$$a_t = \sigma_{t|t-1} \varepsilon_t,$$

$$\sigma_{t|t-1}^2 = \omega + \alpha_1 a_{t-1}^2 + \cdots + \alpha_q a_{t-q}^2,$$

分段函数

$$a_t = \sigma_{t|t-1} \varepsilon_t,$$

$$\sigma_{t|t-1}^2 = \alpha_0 + \sum_{i=1}^q (\alpha_i + \gamma_i I_{t-i}) a_{t-i}^2 + \sum_{j=1}^p \beta_j \sigma_{t-j|t-j-1}^2,$$

$$I_{t-i} = \begin{cases} 1 & \text{if } a_{t-i} < 0 \\ 0 & \text{if } a_{t-i} \geq 0 \end{cases}$$

## 2.2 Itemize

1. ...

## 2.3 Graphs

Figure 1: Nanami



## **3 Empirical study**

行内注释的方法:

### **3.1 Data acquisition and processing**

### **3.2 Basic statistics and tests**

#### **3.2.1 Summary of datasets**

#### **3.2.2 Test of normality**

#### **3.2.3 Test of unit root**

### **3.3 Residuals analysis**

### **3.4 Prediction**

## **4 Discussion and conclusion**

## References

- [1] Eugene F. Fama. The behavior of stock-market prices. *The Journal of Business*, 38(1):34–105, 1965.

## **Appendices**

Table 1: Title of the table

1	2	3
1	2	3
1	2	3
1	2	3
a	b	c

<sup>a</sup> note