# Study on Statistical Arbitrage in Futures Market

Midterm Presentation

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### Introduction

- 1. Terminology
- 2. Background Information

**Principles** 

**Tools** 

Arguments from Scale

**Graphical Methods** 

Basic Optimization

### 1. Terminology

#### **Arbitrage**

The possibility of a risk-free profit at zero cost.

#### Statistical Arbitrage

- 1. An investment process based on mathematical models
- 2. Aiming at making profits
- 3. Building up long and short positions for assets
- 4. Taking advantage of asset prices' deviation from theoretical values

### 2. Background Information

#### Prerequisite:

The securities market in which short selling exists.

#### Financial Market in China:

- 1. Before:
  - 1.1 Absent of short selling mechanism
  - 1.2 Absent of stock index futures
- 2. Now:
  - 2.1 Launched stock index futures on April 16 2010
  - 2.2 Inprovement in startup of securities margin trading

### **Seven Basic Principles**

- 1. Set the context
- 2. Choose effective examples and analogies
- 3. Choose vocabulary to suit your readers
- 4. Decide whether to present #s in text, tables, or figures
- 5. Report and interpret #s in the text
- 6. Specify the direction and size of an association between variables
- 7. For many #s, summarize overall pattern

## **Creating Effective Tables**

## **Example: Cost of Packaging**

### **Example: The Nuclear Mission Arms Race**

## **Example: Maintaining Inventory**