

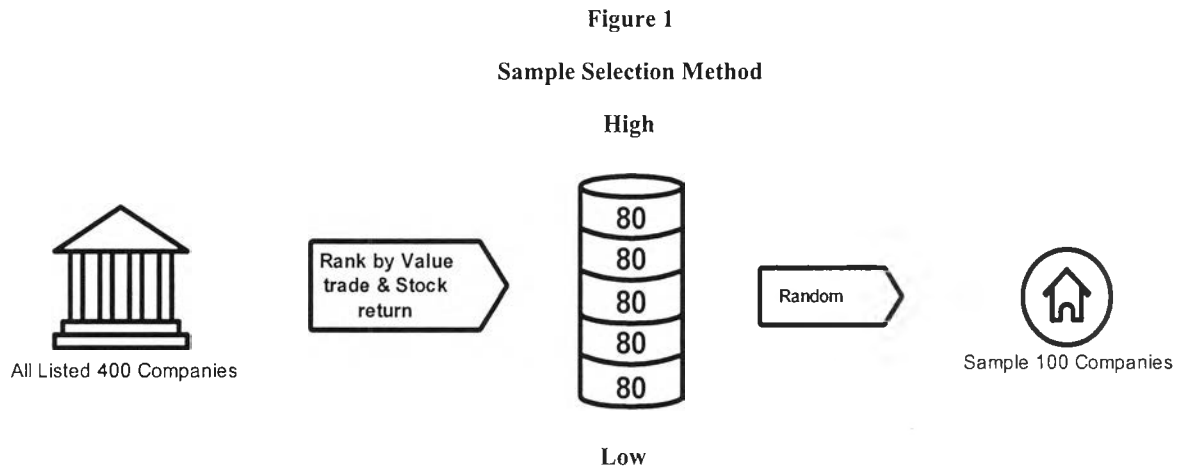
# CHAPTER 3

## METHODOLOGY AND HYPOTHESES

### Sample Selection

The sample consists of listed companies from all sectors, using 2001 as the base year. The sample is divided into two groups of 100 companies: a stock return group and a trading-value group. To obtain the sample, 400 listed companies were ranked: once by stock return and then again by trading value. These two samples were then divided into 5 groups of 80 companies. 20 companies were then randomly selected from the 80 companies in each stratum (see figure 1 below) for a total of 100 companies in each group.

This thesis studies whether corporate governance influences stock-return and firm value. In addition, since high trading-value companies are more closely watched by investors, this thesis tests the effectiveness of a corporate governance index on stock return and firm value in the sample group selected by trading-value.



### Methodology

Methodology is divided into an operational and an empirical study. In the operational study, the corporate governance index of sample firms is ranked using the criteria for best practice in corporate governance of the SET, as shown in Table 1. The questions used to establish these criteria are supported by a survey of fund managers that indicated that the questions covered factors used in investment decision making. The level of good corporate governance is presented in the form of a

governance index with sample companies receiving a score ranging from 0-22 points. In the empirical study, the model of Gomper test is applied to obtain a corporate governance index based on data from financial statements.

### **The operational study**

To begin with, the level of corporate governance was rated for each of the sample companies. The criteria used in this study are taken in part from the published SET guidelines, i.e., the Report on Corporate Governance and the Thai Institute of Directors (Thai IOD). These standards were employed in order to evaluate the corporate governance practice of Thai companies. Table 1 includes only the quantifiable criteria that was selected from the standards and guidelines mentioned above. 22 questions are asked with one point possible per question. The study categorized those questions into the following five groups:

1. The rights of shareholders: Protection of shareholder rights, i.e., voting rights.
2. Equitable treatment of shareholders: Any difference in rights between major and minor shareholders.
3. The role of stakeholders in corporate governance: Action of the company to other stakeholders, i.e., social environmental concerns, employee stock option program for management and employees, etc.
4. Disclosure and Transparency: Disclosure of important company information, both financial and non-financial, and the transparency of shareholder structure.
5. Board Responsibilities: Management's ability to maximize stakeholder value.

Data from 2001-2002 was used for this study. After the financial crisis in 1997, the SET and SEC began promoting good corporate governance practices in listed companies. Investors were interested in corporate governance and realized its importance to the capital market of Thailand. However, the initial practices of listed companies took place when the market was not stable enough to measure any improvement. By 2001, most companies in the market had established foundations of corporate governance within their firms. This study found it suitable to use that year as the beginning period of the study. Moreover, 2001 was proclaimed the Year of Good Corporate Governance by the Thai government. Company information from 2002 was used in this study because that was the year that the SEC started to require listed companies to disclose their corporate governance practices. This thesis also studies the difference in corporate governance practice during both years.

The database of the Stock Exchange of Thailand, such as the Integrated SET Information Management System (I-SIM C.D.), version 2001 (Q1-Q4) and 2002 (Q1-Q4), provides comprehensive information on listed companies. Information includes company profiles, financial statements, auditor reports, company announcements or relevant news, as well as other highlights. The annual reports and 56-1 reports are directly from companies or the SET library. The corporate governance index provides important information about the current practices of corporate governance of Thai companies. The sources of information are presented in Table 2.

The outcome of the survey of fund managers offers interesting insights into the use of corporate governance as a factor in investment decisions. The survey uses the same questions as the study did for sample companies, with some adjustments to make answering easier for fund managers. (See Appendix A for the questionnaire). Fifteen fund managers from Asset Management Company Limited in Thailand were asked to complete the five minute questionnaire. The survey results support the evaluation questions used for corporate governance rating in this paper. It is anticipated that the criteria used in the rating section of this thesis are in line with the opinions of institutional investors relating to investment decisions. The results from this survey will be used to weigh the corporate governance index in the relation analysis section.



**Table 1**  
**Evaluating Questions and Criteria in Governance Rating**

This table presents questions and criteria to evaluate corporate governance. 22 questions are divided into 5 major categories: Rights of Shareholders, Equitable Treatment of Shareholders, Role of Stakeholders in Corporate Governance, Disclosure and Transparency, and Responsibilities of the Board. One point is given for each question that applies to the sample company, Zero (0) points are given when the question does not apply or when there is insufficient information.

Questions	Criteria	
	1 Point	0 Point
<i><b>The Rights of Shareholders</b></i>		
1 Is remuneration of Board members or executives approved by the shareholders annually?	Remuneration is approved by shareholders.	No Information/Remuneration is not approved by shareholders.
<i><b>Equitable Treatment of Shareholders</b></i>		
2 Have there been any cases of insider trading involving company directors and Management in the past two years?	No cases of insider trading by Directors or management.	There have been some cases of insider trading.
3 Does the company provide a rationale for related-party transactions Effecting the corporation?	No related-party transaction observed /or if observed, company provides rationale For related-party transaction.	No rationale provided for any related-party transactions.
4 Have there been any non-compliance cases regarding related-party transactions in the past two years?	No non-compliance cases.	There have been some non-compliance cases. (A case of conflict of interest in related -party transaction).
5 Does the Notice to Shareholders specify the documents required to give proxy?	Company provides sufficient information for shareholders, in order to facilitate the use of proxy.	Company does not provide information for shareholders, in order to facilitate the use of proxy.

Table 1 (continue)

Evaluating Questions and Criteria in Governance Rating

Questions	Criteria		
	1 Point	1 Point	
<i>Equitable Treatment of Shareholders</i>			
6	Is there any requirement for a proxy to be notarized?	There is no requirement that makes it harder for shareholders to vote.	There are some requirements that make it harder for shareholders to vote
<i>The Role of Stakeholders in Corporate Governance</i>			
7	Does the company provide an ESOP (Employee Share Option Program), or any long-term employee option incentive linked to Shareholder value creation to employees or management?	Company provides benefits to align employee and shareholder interests.	Company does not provide any benefit to align employee and shareholder interests.
<i>Disclosure and Transparency</i>			
8	Does the company have a transparent ownership structure?	Company provides information on the breakdown of shareholdings.	No information on ownership structure is available.
9	Does the company have a dispersed ownership structure?	If the largest ten shareholders (Excluding TSD and foreign nominees) hold less than 50% of shares.	If the largest ten shareholders (excluding TSD and foreign nominees) hold more than 50% of share.
10	Does the annual report disclose Financial and Operating performance?	Reports are clear, comprehensive, and informative.	Report covers only audit report, consolidate Account, and financial ratios that reflects firm performance.

**Table 1 (continue)**  
**Evaluating Questions and Criteria in Governance Rating**

Questions	Criteria	
	1 Point	0 Point
<i>Disclosure and Transparency</i>		
11 Does the annual report disclose Business operations and Competitive position?	Report is clear, comprehensive, and Informative.	Report covers only company history , ownership structure of firms' group, sales breakdown ,market and competitive position.
12 Does the annual report disclose Basis of director remuneration?	Report provides disclosure on individual director remuneration.	Report provides disclosure on the aggregate amount of director remuneration.
13 Does the annual report disclose Operating risks?	Report is clear, comprehensive, and informative	Report covers only risks that significantly affect investors but there is no clear information.
14 Are there any accounting qualifications in the audited financial statements apart from the qualification on uncertainty of situation?	Auditor states unqualified.	Auditor states qualified.
15 Does the company offer multiple channels of access to information (i.e. a company website which discloses up-to-date information)	Company has additional channels to printed and online annual report.	Company has only printed and online annual report.
16 Does the SET/SEC have any evidence of company non-compliance with SET/SEC rules and regulations over the last year?(i.e. financial report not disclosed in a timely manner)	No non-compliance case within company.	Company has only one non-compliance case.

**Table 1 (continue)**  
**Evaluating Questions and Criteria in Governance Rating**

Questions	Criteria	
	1 Point	0 Point
<b><i>Responsibilities of the Board</i></b>		
17 Is the Chairman an independent director?	“Independent” as defined by SET’s regulations.	Violate any of the definitions of “Independent” stated in SET regulations.
18 Does the company have an audit committee comprised of independent members?	Company has an Audit Committee consisting of at least 3 independent directors.	Company does not have an Audit Committee or have less than 3 independent directors.
19 Does the company have a Compensation Committee comprised of independent members?	Company has a Compensation Committee.	Company does not have a Compensation Committee.
20 Does the company have a Nomination Committee comprised of independent members?	Company has a Nomination Committee.	Company does not have a Nomination Committee.
21 Among the Board of Directors, how many directors are non-executive?	Non-executive directors comprise over 50% of Board members.	Non-executive directors comprise less than 50% of Board members.
22 How many board members are non-executive and independent directors?	Non-executive and independent directors comprise over 50% of Board members.	Non-executive and independent directors comprise less than 50% of Board members.
<b><i>Total 22 Questions</i></b>		

**Table 2**  
**Sources of Information in Rating**

This table presents the sources of information used to rate corporate governance in this study.

Questions	Sources
<i>The Rights of Shareholders</i>	
1 Is remuneration of board members or executive approved by the shareholders annually?	ISIM: Resolution on annual ordinary shareholder's meeting
<i>Equitable Treatment of Shareholders</i>	
2 Have there been any cases of insider trading involving company directors and management in the past two years?	SEC: Summary of criminal sanctions
3 Does the company provide a rationale for related-party transactions affecting the corporation?	Annual Report/ 56-1 Report
4 Have there been any non-compliance cases regarding related-party transactions in the past two years?	Annual Report/ 56-1 Report
5 Does the notice to shareholders specify the documents required to give proxy?	ISIM: Resolution of the board of directors
6 Is there any requirement for a proxy to be notarized?	ISIM: Resolution of the board of directors
<i>The Role of Stakeholders in Corporate Governance</i>	
7 Does the company provide an ESOP (Employee Share Option Program), or any long-term employee or option incentive linked to shareholder value creation to employees or management?	SEC: Statistics of public offering
<i>Disclosure and Transparency</i>	
8 Does the company have a transparent ownership structure?	Annual Report/ 56-1 Report
9 Does the company have a dispersed ownership structure?	Annual Report/ 56-1 Report
10 Does the annual report disclose Financial and Operating performance?	Annual Report
11 Does the annual report disclose Business operations and Competitive	Annual Report
12 Does the annual report disclose the basis of director remuneration?	Annual Report
13 Does the annual report disclose Operating risks?	Annual Report
14 Are there any accounting qualifications in the audited financial statements apart from the qualification on uncertainty of situation?	Annual Report/Audit Report
15 Does the company offer multiple channels of access to information (i.e. a company website which discloses up-to-date information)	Company's Website



**Table 2 (continue)**  
**Sources of Information in Rating**

Questions	Sources
<i>Responsibilities of the Board</i>	
16 Does SET/SEC have any evidence of non-compliance with the SET/SEC rules and regulations over the last year? (i.e. financial report not disclosed in a timely manner)	SEC: Summary of criminal sanctions
17 Is the Chairman an independent director?	Annual Report/ 56-1 Report
18 Does the company have an audit committee comprised of independent members?	Annual Report/ 56-1 Report
19 Does the company have a Compensation Committee comprised of independent members?	Annual Report/ 56-1 Report
20 Does the company have a Nomination Committee comprised of independent members?	Annual Report/ 56-1 Report
21 Among the Board of Directors, how many directors are non-executive directors?	Annual Report/ 56-1 Report
22 How many board members are non-executive and independent directors?	Annual Report/ 56-1 Report
<b>Total 22 Questions</b>	

### **The empirical study**

After creating a corporate governance index, this study tests the correlation between corporate governance index and stock return. The hypothesis is that *if good governance provides a benefit to firms, stock price should rise and there will be a positive relation between the level of corporate governance and return from company share price*. This assumption is derived from three main points of corporate governance. Firstly, the agency cost of a firm can be reduced by governance mechanisms that result in better performance and higher share price. Secondly, the changes in practice to build good corporate governance should affect stock price immediately. Finally, if investors know that a company has good corporate governance, they will be willing to invest in such a company, which in turn will lead to higher stock prices.

The operational study matched two major variables, governance index and company stock return, and includes other variables that influence stock return. Fama and French (1992a) studied and insisted that book to market ratio and size effect stock return. This statement is supported by Brennan, Chordia and Subrahmanyam (1998). Such findings indicate a negative effect of size on stock return, because of its ability in making profit. Trading-volume is also included as a variable in this analysis to control for any effect on stock-return. Brennan and Subrahmanyam (1995) indicate that trading volume has a negative effect on stock return. In the case of low trading-volume or less liquid stock, investors need to sell at a lower price in order to meet low demand, yielding a lower return. This is called liquidity effect. This study includes these variables in the analysis to control for any effect on stock return, so that the return can be more accurately measured.

There are three steps in analyzing the correlation between governance index and stock return. Based on the assumption that good governance should have an immediate effect on stock return, the first step is to investigate the effect of the firm's corporate governance in 2001. Secondly, the study examines how investors reflect governance index to stock return. One assumption is that investors have asymmetric information regarding the level of corporate governance of a company due to a delay of information, such as annual reports which are publicly available around mid-year. Hence, this study investigates the relation between the corporate governance index in 2001 and the stock return of 2002, by using the same model as the first step but replacing 2001 stock returns with 2002 figures as the dependent variable. To make the results more accurate and reliable, the last step investigates how changes in a firms' corporate governance affects stock return. The study uses the same model as the other steps but replaces the absolute value for the test year with the changing value from 2001-2002. In this step, important evidence that can explain investor behavior will be found. The expected

outcome of this examination is a positive coefficient on changes in governance index, implying that a company with a high positive change in their corporate governance index should also have a high stock return. The following section provides some explanations of controlled variables in each model.

$$r_t = \beta_0 + \beta_1 * GOV_t + \beta_2 * BM_t + \beta_3 * SIZE_t + \beta_4 * BTHVAL_t + \varepsilon_t \quad (1)$$

Definitions of variables used to measure the relation between return from share price and corporate governance of the company are as follows:

-Stock return ( $r_t$ ) is the return from share price during 2000-2001 after dividend adjustment.

-Governance index ( $GOV_t$ ) is the company's corporate governance scores measured by the criteria described in Table 1.

-Book to market ratio ( $BM_t$ ) is measured by book value of equity/market value of Equity

-Firm size ( $SIZE_t$ ) is calculated by closing price \* number of authorized capital

-Trading value of the company ( $BTHVAL_t$ ) as of the year ending 2001 measured by firm's value traded on the main board calculated by average closing price of each stock multiplied by average outstanding shares on main board.

Moreover, the test uses another lagged model of return in testing the change in variables, especially governance index, influence to return of companies.

$$\Delta r_t = \beta_0 + \beta_1 * \Delta GOV_t + \beta_2 * \Delta BM_t + \beta_3 * \Delta SIZE_t + \beta_4 * \Delta BTHVAL_t + \varepsilon_t \quad (2)$$

Definition of variables in measuring the relation between changes in governance index and return and changes in other variables are the following.

-Change in stock return ( $\Delta r_t$ ) measured by changes in stock return during 2000-2002 after being adjusted by dividend.

-Change in corporate governance index ( $\Delta GOV_t$ ) is the change in company's governance index between 2001 and 2002.

-Change in book to market ratio ( $\Delta BM_t$ ) is measured by changes in book value of equity/market value of equity during 2001-2002.

-Change in firm size ( $\Delta SIZE_t$ ) is calculated by the changing of market capitalize of 2001 and 2002

-Change in trading value of the company ( $\Delta BTHVAL_i$ ) is measured by company trading value as of the year ending 2001 and 2002 calculated by average closing price of each stock multiplied by average outstanding shares on the main board.