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# PERFORMANCE OF GROUP-AFFILIATED FIRMS: A STUDY OF POLITICALLY-AFFILIATED BUSINESS GROUP IN MALAYSIA

BY

M.FAZILAH BINTI ABDUL SAMAD

# A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN

**BUSINESS ADMINISTRATION** 

UNIVERSITY OF RHODE ISLAND

# DOCTOR OF PHILOSOPHY DISSERTATION OF M.FAZILAH BINTI ABDUL SAMAD

APPROVED:

Dissertation Committee Major Professor \_\_\_

DEAN OF THE GRADUATE SCHOOL

UNIVERSITY OF RHODE ISLAND
1996

#### ABSTRACT

Apart from the fact there is continuous support and nurturing of Bumiputera entrepreneurship by the Malaysian government, very little is known about the politically-affiliated business group in Malaysia. This 100 percent Bumiputera group of companies emerged as a result of the New Economic Policy. It started as a group of ailing businesses in the early 1980s, but with strong support from the government and ingenious Bumiputera leadership, it became one of the biggest, if not the biggest, conglomerates in the country. This dissertation examines the profitability performance, investment and financing decisions of the politically-affiliated business group, and compares it to that of independent group. Since studies on corporate grouping are mostly concentrated in the "bank oriented" system of the Japanese keiretsu [Nakatani (1984); Kester (1991, 1992); Kaplan (1992); Hoshi, Kashyap and Sharfstein (1990, 1991); Prowse (1990, 1992)], the existence of the results from research on the Japanese system allows us to provide an explanation of the behavior of the corporate grouping in Malaysia, within the context of the politically-affiliated business group.

#### **ACKNOWLEDGMENTS**

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# TABLE OF CONTENTS

|   | PAGE |
|---|------|
| ABSTRACT  | ii   |
| ACKNOWLEDGMENTS.  | iii  |
| TABLE OF CONTENTS.  | iv   |
| LIST OF TABLES.   | vii  |
|   |      |
| CHAPTER I: INTRODUCTION                                     |      |
| Purpose of the Study  | 2    |
| Importance of the Study                                     | 3    |
| Dissertation outline.                                       | 4    |
| CHAPTER II: LITERATURE REVIEW                               |      |
|   |      |
| Introduction  | 7    |
| The New Economic Policy and Political Involvement           |      |
| in business in Malaysia                                     | 9    |
| Theoretical and Empirical Development on Corporate Grouping |      |
| in Japan  | 14   |
| Profitability Performance                                   | 19   |
| Investment and Financing Decisions                          |      |
| Summary   | 24   |
|   |      |
| CHAPTER III: THE HYPOTHESES                                 |      |
| Introduction  | 28   |
| Profitability Performance, Investment Decisions             |      |
| and Financing Decisions.                                    | 29   |
| Hypothesis  | 31   |
| The Explanatory Variables                                   | 33   |
| Liquidity Measure   | 33   |
| Risk Measures   |      |
| Size Measure  | 36   |
| Growth Measures   | 37   |
| Industry Classification                                     | 39   |
| Summary   | 40   |

# CHAPTER IV: DATA AND RESEARCH METHODOLOGY

| The Data    |  |    |
|-------------|--|----|
| Selection   | of Firms in Politically-affiliated Group | 42 |
| Selection   | of Firms in Independent Group            | 43 |
|             | of Industrial Grouping                   |    |
| Period of   | f Study                                  | 46 |
| Data Sou    | irce                                     | 47 |
| Depende     | nt Variables                             | 47 |
|             | Profitability Measures                   | 47 |
|             | Investment Decision Measures             | 48 |
|             | Financing Decision Measures              | 49 |
| Explanat    | ory Variables                            | 50 |
|             | Liquidity Measure                        |    |
|             | Risk Measures                            |    |
|             | Size Measure                             | 51 |
|             | Growth Measures                          | 51 |
|             | Industry Classification                  | 51 |
|             | Group Dummy                              | 51 |
| Research    | Methodology                              |    |
|             | nary Least Squares Models                |    |
|             | Profitability Performance Model          |    |
|             | Financing Behavior Model                 | 54 |
|             | Investment Behavior Model                |    |
| Summary     | 7  | 55 |
| •           |  |    |
|             |  |    |
| CHAPTER V:  | RESULTS                                  |    |
|             |  |    |
| Sample I    | Description                              | 56 |
|             | ctional Regression Analyses              |    |
|             | Profitability Performance Measures       |    |
|             | Financing Behavior Measures              | 73 |
|             | Investment Behavior Measures             | 79 |
| All Samp    | oles Cross-Sectional Regression Analysis | 84 |
|             | les Pooled Regression Analysis.          |    |
| Summary     | 7  | 98 |
| •           |  |    |
|             |  |    |
|             |  |    |
| CHAPTER VI: | CONCLUSIONS AND LIMITATIONS              | 99 |
| Conclusio   | ons                                      | 99 |
|             | ns                                       |    |
|             |  |    |

| APPENDICES                           | 104 |
|--------------------------------------|-----|
| Definition of Variables              | 105 |
| Samples of Privatization Projects    | 107 |
| List of Politically-affiliated firms | 108 |
| List of Matching Independent firms   | 109 |
| List of Fully Independent firms      | 110 |
|                                      |     |
| BIBLIOGRAPHY                         | 111 |

# LIST OF TABLES

| Table 1  | Summary Statistics of Market Capitalization            | Page 57 |
|----------|--|---------|
| Table 2A | Summary Statistics                                     | Page 59 |
| Table 2B | Summary Statistics for Politically-affiliated Group in | Page 63 |
|          | two sub-periods  |         |
| Table 2C | Summary Statistics for Independent Variables           | Page 64 |
| Table 3  | Profitability Performance Regression Results           | Page 70 |
| Table 4  | Financing Behavior Regression Results                  | Page 76 |
| Table 5  | Investment Behavior Regression Results                 | Page 81 |
| Table 6  | Profitability Performance Whole Sample Regression      | Page 86 |
|          | Results  |         |
| Table 7  | Investment Behavior Whole Sample Regression            | Page 90 |
|          | Results  |         |
| Table 8  | Financing Behavior Whole Sample Regression Results     | Page 93 |
| Table 9  | Profitability Performance Pooled Regression Results    | Page 95 |
| Table 10 | Financing Behavior Pooled Regression Results           | Page 96 |
| Table 11 | Investment Behavior Pooled Regression Results          | Page 97 |
|          |  |         |

#### CHAPTER I

#### INTRODUCTION

The theory of corporate grouping mainly revolves around the corporate grouping in Japan and in the United States. Some of the earliest literature on corporate grouping was by Berle and Means¹ (1932). Ever since researchers and academics developed an interest in the Japanese keiretsu, the theory of corporate grouping developed in the days of Berle and Means has become synonymous with the theory of Japanese corporate grouping. Japanese keiretsu firms have received considerable attention since the emergence of Japan as an economic super power of the world.

The keiretsu emerged as a result of government's intervention in the Japanese economic systems. The accelerated growth of Japanese economy has been attached to the formation of the Japanese keiretsu system. Yet the keiretsu system is not without flaws. While some researchers have proposed that a system modeling the Japanese keiretsu system be adopted to reform the economies of eastern Europe, others have suggested against it. Weinstein and Yafeh (1995) claimed that keiretsu firms have lower

<sup>&</sup>lt;sup>1</sup> In 1932, Adolf Berle and Gardiner Means examined the separation of ownership and control in American industry. *The Modern Corporation and Private Property*, a book that for some sixty years has defined the intellectual mission of American corporate governance, reported that owners and major corporations had become atomistic shareholders lacking the ability, skill, information, and often the incentives to monitor the performance of specialized managers.

profitability and growth rates than non keiretsu firms, and a system modeled after the Japanese keiretsu would further aggravate the reforming economies.

This study examines another alternative to the corporate grouping. The politically-affiliated business group in Malaysia is in many ways similar to the Japanese keiretsu. Based on previous study on the Japanese keiretsu, it is possible to draw direct comparisons and contrasts to the politically-affiliated firms of Malaysia. There are both similarities and differences between the Japan keiretsu and the politically-affiliated business group in Malaysia which illustrate why the Malaysian case is worth studying. First, like the Japanese keiretsu, there exist similar horizontal and vertical relationships within the politically-affiliated business group. However, while these relationships center around a financial core in the Japanese keiretsu, the relationship for the politicallyaffiliated business group center around the ruling political party<sup>2</sup>, that is, the United Malays National Organization, better known as UMNO (pronounced as am-no). Second, even though the role of private bank is insignificant in the politically-affiliated business group, Yoshihara (1988) claimed that liquidity is not a constraint since firms in the politically-affiliated group get easy access to soft-loans provided by government-owned banks. Previous studies on the Japanese keiretsu have found that due to close main bank relationships, liquidity is less of a constraint for this group than for independent firms (Hoshi, Kashyap and Scharfstein, 1991). Third, firms within the politically-affiliated business group also bail out one another in times of financial distress, which is similar to

<sup>&</sup>lt;sup>2</sup> The ruling political party is the Barisan Nasional, or the National Front, and is represented by the three main races in Malaysia. United Malays National Organization, or UMNO represents the Malays and Bumiputera; the Malaysian Chinese Association, or MCA, represents the ethnic Chinese, and the Malaysian Indian Congress, or MIC, represents the ethnic Indians.

the practice within the Japanese keiretsu. Hoshi et. al. provided evidence which suggests that group firms in Japan invested more than independent firms in the period following the onset of financial difficulty and subsequently enjoyed stronger future sales growth. Thus a group affiliation enhances the performance of Japanese companies with a recent history of financial trouble. Fourth, unlike the keiretsu group, the politically-affiliated business group has superior growth opportunities since it is 100 percent bumiputera<sup>3</sup>-controlled thus it is well-positioned to take advantage of government's privatization schemes. On the other hand, Nakatani (1984) observed that in Japan, the keiretsu group on average has significantly lower profit and growth rates than the independent firms, but the variability of both growth and profit rates of the group affiliated firms is much smaller than that of independent firms.

### Purpose of the Study

The purpose of this dissertation is to analyze whether the theory of capital structure behavior of corporate grouping developed thus far for the Japanese keiretsu groups can be applied to describe the profitability performance, investment behavior and capital structure of the politically-affiliated firms in Malaysia. As a comparison, I analyze and examine the determinants of these issues for independent firms in Malaysia.

This study attempts to analyze three issues in the context of the politicallyaffiliated business group in Malaysia. They are as follows:

<sup>&</sup>lt;sup>3</sup> literally, son of the earth, which represents the indigenous race, and is often used interchangeably with Malays.

- (1) The profitability performance;
- (2) The investment decision; and
- (3) The financing decision.

### Importance of the Study

The keiretsu affiliation in Japan has been under scrutiny of researchers from all over the world. Despite the attention given to the keiretsu system, there remain conflicting views regarding the main bank system. Some researchers have proposed that a system modeling the Japanese keiretsu be adopted by the reforming economies in eastern Europe. Others have suggested against it, mainly because keiretsu firms have lower profitability and growth rate compared to non keiretsu firms.

The nature of the politically-affiliated business group in Malaysia is similar to the Japanese keiretsu. While the Japanese keiretsu may be unique, a similar study on another form of corporate groupings may allow us to determine whether similar characteristics exists among business groupings in the region.

Unfortunately, while the keiretsu groups have received both positive and negative reactions from researchers and academics world-wide, the political-affiliated business group in Malaysia has somehow failed to receive any "unbiased" analysis. The New Economics Policy has been attacked as being biased towards businessmen with close links to United Malays National Organization. Critics alleged that wealth and opportunity seem to be concentrated in the hands of a few politically connected people.

However, many probably have not realized that over the years, this group has managed to create world class bumiputera companies. Even though the approach taken by this group does not translate into a broad redistribution of wealth to bumiputera, it means steering state assets to qualified bumiputera who are capable of turning them into profits. In return, this group of companies provides job opportunities for the bumiputera and attracts the best professionals, both bumiputera and non-bumiputera. The emphasis on quality over quantity4 for the sake of economic growth fits with Prime Minister Datuk Seri Dr. Mahathir's National Development Program, which succeeded the NEP in 1991. Thus, the main purpose of this study is to provide an unbiased analysis of the performance of the politically-affiliated firms. If the results of this study indicate that the politically-affiliated business group firms have superior performance compared to independent firms, then there are reasons to believe that the Malaysian government has been successful in achieving economic parity for the Malays, who, just two decades ago, were the least successful racial group in terms of entrepreneurship in Malaysia. This study may also allow us to determine whether government intervention in the distribution of wealth is effective in creating superior economic performance for business entities. Additionally, it may determine whether politically-affiliated firms should be encouraged as the model system in other developing and reforming economies.

<sup>&</sup>lt;sup>4</sup> The earlier part of the NEP stressed on quantity, i.e. extending business opportunities to any bumiputera as long as he or she showed some interests in starting a business. This has resulted in bumiputeras owning 100% of continually losing companies. Thus the government viewed that it is much better to allocate business opportunities to bumiputera that can provide good results, which means selecting only the quality bumiputera to lead profitable companies. (Far Eastern Economic Review, 12/21/95, p.30)

#### Dissertation Outline

Chapter two reviews the literature on political involvement in business in Malaysia, theories and empirical works on corporate grouping developed for the Japanese keiretsu and similarities and differences between the Japanese keiretsu and Malaysian politically-affiliated business group.

Chapter three discusses the model and hypotheses. First, it develops the models of profitability performance, financing behavior and investment behavior, Second, it discusses the major determinants of three models; Finally, it reviews the basic hypotheses of this study.

Chapter four develops the research methodology. The chapter discusses the politically-affiliated group and independent group samples, the rational of the sample period of the study, the data sources, definition of variables, measurement of the variables and statistical models.

Chapter five presents the data analyses and empirical results. First it discusses the summary statistics and conducts group comparison, next it discusses the regression results for the politically-affiliated group and also for the two independent groups, and finally it discusses the regression results for the entire sample.

Chapter six presents the summary and conclusions of the dissertation.

#### CHAPTER II

#### LITERATURE REVIEW

#### Introduction

The theory of corporate grouping mainly revolves around corporate grouping in both Japan and the United States. Some of the earliest literature on corporate grouping was by Berle and Means (1932). Adolf Berle and Gardiner Means published "The Modern Corporation and Private Property 5", a book that for some sixty years has defined the intellectual mission of American corporate governance. It reported that owners and major corporations had become atomistic shareholders lacking the ability, skill, information, and often the incentives to monitor the performance of specialized managers.

<sup>&</sup>lt;sup>5</sup> In 1932, Adolf Berle and Gardiner means published a classical work on the economic power of big business. By examining the largest 200 nonfinancial American corporations, ranked by value of assets (total assets less depreciation reserves) at the close of the "Roaring Twenties" (as of January 1, 1930), the authors confirmed that the top 200 big corporations, while only 0.07% of the total number of businesses, controlled about half of total corporate assets. They speculated that the management unit expands in scale as the corporate system is being adopted, thereby inevitably spreading share ownership. The dispersion of share ownership would make it possible to acquire the control of productive assets by holding a minimum of share ownership and eventually to establish "managerial control" with no influential share ownership at all. Accordingly, "ownership of wealth without appreciable control and control of wealth without appreciable ownership appear to be the logical outcome of corporate development".

Ever since researchers and academics developed an interest in the Japanese keiretsu, theory of corporate grouping developed in the days of Berle and Means has become synonymous with the theory of the Japanese corporate grouping. Interest in the Japanese keiretsu was generated by Japan's impressive economic growth in the 1960s and 1970s. Recovering from the war-ravaged economy of the late 1940s, Japan became second in industrial exports to West Germany in 1978, surpassing the United States for the first time in history (Sato, 1980). The dynamic force behind this tremendous economic growth over more than three decades was Japan's modern industry run by large Japanese businesses which were and continue to be supported by the government. These groups of large enterprises, or known as the keiretsu, emerged as the result of government intervention in the Japanese economic system. However, while the corporate group in Japan is an indirect consequences of government's intervention into the economy, the corporate grouping in Malaysia can be considered as a direct consequence of politics intervention into business. The corporate grouping in Malaysia can be likened to the corporate grouping in Japan in several ways. However, unlike in Japan where the nexus of the corporate grouping centers on a main bank, the corporate grouping in Malaysia revolves around the ruling political party. Even though a bank and a political party are two distinct entities with very different functions and responsibilities, if the political party is involved in business, then under this scenario, the objective of the political party will be similar to the objective of a bank, that is to create wealth for the owners and shareholders.

The first section of this chapter describes the history behind the politicallyaffiliated business group. It discusses the preferential treatment issue, the development of
the New Economic Policy, and subsequently the political involvement in business in
Malaysia. The second section reviews the literature on the corporate grouping in Japan
and discusses the similarities and differences in the corporate structures of Japanese
keiretsu firms and Malaysian politically-affiliated business group. The third and fourth
sections review the literature on profitability performance, investment decisions and
financing behavior. The last section summarizes the chapter.

The purpose of this dissertation is to examine whether the politically-affiliated business group in Malaysia exhibits any behavior consistent with the behavior of corporate grouping. The three behavioral issues to be examined are profitability performance, investment decisions, and financing behavior. Additionally, this study will also compare the politically-affiliated business group with the independent group, with respect to the three issues. Thus the objective of this chapter is to discuss the development of the theory of corporate grouping developed for the Japanese keiretsu and relate this to the politically affiliated corporate grouping in Malaysia.

The New Economic Policy (NEP) and political involvement in business in Malaysia

Malaysia's population of 20 million<sup>6</sup> people is made up of three main racial

groups of Malays or bumiputera<sup>7</sup>, Chinese, and Indians. She gained her Independence on

<sup>6</sup> 1996 figure. Source: Malaysia Economic Reports.

literally, son of the earth. It also represents the diverse indigenous people of Sabah and Sarawak, but more commonly refers to the Malays.

August 31, 1957, from the British and formal political authority was handed to the Alliance Party. The Alliance, consisting of the United Malays National Organization (UMNO), the Malayan Chinese Association (MCA) and the Malayan Indian Congress (MIC), represented the politically dominant Malay elements, Chinese business interests and the Indian middle class respectively. As part of the political compromise underlying the Alliance, the UMNO-led government was expected to continue to encourage the development of the Malay business community. According to Stenson (1980), the political compromise reached was meant to "guarantee Malay political and administrative dominance, with special assistance to promote Malay education and economic uplift, while guaranteeing citizenship rights and freedom from interference for non-Malay commerce, culture and individuals<sup>78</sup>.

This, in effect, was to protect the Malay community by providing it special rights, for its development. Thus, the Malays were granted special privileges in public services, land reservation, and in the award of scholarships, educational grants, licenses, and permits<sup>9</sup>. At first, efforts by government departments and other agencies to assist the Malays were concentrated on opening up estate settlements and constructing roads, school, and other community facilities. The government used three main strategies in its attempt to develop a Malay industrial capitalist class (Jomo, 1988, p248):-

a) Protection: Malay quotas were imposed on the award of business licenses, and in the area of government employment, and education.

<sup>8</sup> Stenson, 1980, p47.

- b) Assistance: Facilities were provided in the form of credit, training, and business premises.
- c) Acquisition: Malay ownership of the corporate economy was to be expanded.

Jomo (1990) also described the special rights provided to the Malay community as the government's "preferential treatment" to the Malays. He wrote that "in the first decade or so after Independence, the expansion of the Malay middle class mainly involved enhanced educational opportunities, recruitment quotas into the state machinery, and other types of 'preferential treatment'. But as the Malay middle class grew, it began to demand even more support for further expansion, especially into the 'commanding heights' of big business' (Jomo, 1990, p143). Pressure from this group led the government to set up a trust agency, Mailis Amanah Rakvat (MARA) and establish a Malay bank, Bank Bumiputera in the 1960s. MARA was responsible for setting up small business projects in trade, industry and transportation. The hope was to encourage greater Malay participation in these fields by selling these companies to the Malays when these companies became viable. Bank Bumiputera, meanwhile, was established to provide the financial thrust, assisting the Malays through easier access to credit facilities and bank loans (Gomez, 1990).

The Malaysian economic development of the 1960s had not only maintained, but probably increased income inequality, including the income gaps between the major ethnic groups in Malaysia<sup>10</sup>. When the Alliance lost ground to the opposition parties in

<sup>&</sup>lt;sup>10</sup> Jomo (1990) stated that the income distribution in Malaysia worsened between 1957 and 1970, with the rich become richer and the poor becoming poorer in all ethnic groups. The deteriorating socioeconomic and political situation of the 1960s came to be interpreted and seen primarily in ethnic terms.

the General Election in 1969, the opposition parties stirred anti-Malay riots which erupted into two days of bloody violence, known as the May 13 riots. This incident resulted in a major revision of government ideology, and the implementation of the New Economic Policy (NEP), with two main objectives of fighting poverty and granting the Malays a more equitable share of economic benefits. The NEP restructured the Malaysian economy and eliminated the identification of race with economic activity. It encouraged the urbanization of Malays and increased their participation in industry and commerce. Within the context of continued open capitalist development, the restructuring efforts are largely aimed at increasing the share of bumiputera capital, as well as the number of bumiputera businessmen and professionals (Jomo, 1990).

The decade following the inception of the NEP marked a new era of political involvement in business. Many bumiputera trust agencies<sup>11</sup> were established to acquire corporate assets on behalf of the companies. The state's increasing incorporation of public enterprises was aimed at elevating the economic status of the bumiputera. However, the upsurge in political business became significant only in the 1980's. When Datuk Seri Dr. Mahathir Mohamad assumed office as Malaysia's 4th Prime Minister in July of 1981, the phenomenon of "politics in business" entered a more active phase. While he was firmly committed to the ideals of the NEP, specifically of its use of public enterprises and trust agencies to acquire assets on behalf of the bumiputera, he also believed that this alone was not enough. His rationale was that the creation of a Malay entrepreneurial community is vital to ensure that when assets acquired by the state are

such as Perbadanan Nasional Berhad, or National Corporation Limited (Pernas), and Permodalan Nasional Berhad, or National Investment Limited (PNB).

eventually handed over to bumiputera, they would possess the skills to maintain and develop their hold on these assets.

The 1980's corporate aggression of UMNO's investment arm, Fleet Holdings, exemplified Mahathir's vision of how Bumiputera could actively participate in business. After being put through a complicated series of share-swaps, takeovers, and mergers, but not before coming dangerously close to bankruptcy during the mid-1980s recession, Fleet Holdings became the holding company of one of Malaysia's largest conglomerates<sup>12</sup> in 1991, public-listed Renong Bhd. Through an intriguing network of cross-holdings that involved a number of private and public-listed companies, the onceailing Renong, led by a group of young, educated, and qualified Bumiputera executives, had obtained effective control over the media, construction, and financial sectors by mid-1991 (Gomez, 1991a).

Political party involvement in business is not unique to this part of the world. In Indonesia, three political parties<sup>13</sup> had established business enterprises in the 1950's. However, the rise of military rule and the subsequent suppression of these parties led to the cessation of their involvement in business (Robison, 1986). Political involvement in business in South Korea is less direct. A corporate group in South Korea known as chaebol<sup>14</sup> is also nurtured and guided by the government, and receives government

<sup>&</sup>lt;sup>12</sup> Other major conglomerates controlled by Bumiputera with close ties to the ruling elite have also grown rapidly. These conglomerates developed by Bumiputera businessmen were seldom initiated or expanded through active involvement in manufacturing production, but rather by consolidation through publicly listed vehicles.

<sup>,</sup> i.e. Partai Nasionalis Indonesia (PNI), Partai Sosialis Indonesia (PSI) and Majlis Syuro Muslimin

<sup>(</sup>Masyumi).

14 Appelbaum and Henderson (1992) described the chaebol arrangement as "a narrow development alliance between the military regime and select large merchant capitalists that eventually shaped the capital accumulation process during the period of export-oriented industrialization" (Appelbaum and Henderson, 1992, p125).

privileges. Nonetheless, it cannot be considered as a politically-affiliated business group since it consists of independent manufacturing firms merged into a large conglomerate.

Yoshihara (1988) claimed that the politically-affiliated business group in Malaysia often managed to get easy access to bank loans provided by government-controlled banks and access to bank loans through their political influence. He further added that those with strong government connections often manage to obtain big loans for government projects. In truth, most of the projects undertaken by the political group are government privatization projects and of national importance, such as the construction of the North-South Highway, which allows a smooth flow of commerce and transportation between the northern tip to the southern tip of Malaysia, and allows new satellite towns to form along the highway. The projects are in line with the government New Economic Policy plan, which has the primary aim of lifting the bumiputera out of poverty and into parity with the country's other races, and has the secondary aim of achieving an industrialized nation status by year 2020. Ho (1993) pointed out that since government projects have to be given national importance, the central bank waived single borrower lending limits to ensure that government projects would not be dependent on either foreign partners or foreign funds. Thus in order to avoid relying on foreign funds and eventually creating a negative impact on the balance-of-payment, bank loans from government owned bank and other commercial banks have been made easily available to the politically-affiliated business group.

Theoretical and Empirical Review on the Corporate Grouping in Japan

In Japan the concentration of economic power has led to the existence of influential groups of enterprises. The most well-known of these groups in the pre-1940 era were the *zaibatsu*. The *zaibatsu*, literally financial cliques, evolved into instruments of excessive power that played a part in driving Japan into the Second World War. They were the forerunners of today's industrial groupings in Japan<sup>15</sup>.

By the early 1960s, many of the companies previously associated with each of the four major ex-zaibatsu had reestablished shareholding ties with one another, and reintegrated as enterprise groups known by the name of "keiretsu<sup>16</sup>". The development from zaibatsu to keiretsu highlights two points. First, in the pre-war zaibatsu the links in the enterprise groups were centered on the commercial sector of their businesses.

Second, the pre-war zaibatsu took the form of "family konzerns" linked vertically and topped by a holding company for the whole group. On the other hand, the post-war keiretsu are centered around financial institutions, and take the form of konzerns in which the enterprises are linked horizontally<sup>17</sup>. Banks were and still are the major nexus of interlocking shareholding in these "financial keiretsu." Besides the progeny of the big four, i.e., Mitsui, Mitsubishi, Sumitomo, and Fuyo (formerly Yasuda), the six major keiretsu include the Dai-Ichi Kangyo group consisting mainly of former members of the

<sup>17</sup> see Miyashita et.al, (1994) p55.

In 1948, the U.S. Occupation authorities dissolved the zaibatsu shareholding interlocks. Its main purpose was to assure that a former enemy would never again become a threat to world peace, and it achieved this purpose by disbanding the military and eliminating the industrial forces that had supported it, i.e. the zaibatsu. At about the same time, the Japanese legislature passed the Supreme Commander for Allied Powers (SCAP)-devised Antimonopoly Law (AML) which made holding companies illegal (Miyashita and Russell, 1994).

keiretsu means "a closely tied complex of industrial and financial corporations".

smaller Kawasaki and Furukawa zaibatsu, and the Sanwa group which has no prewar antecedent. Each of the six groups is respectively linked together through interlocking shareholdings and through ties of trade and credit, and the largest members of each are represented in the six respective monthly "presidents' council" meetings<sup>18</sup>.

The two major classifications<sup>19</sup> of keiretsu are the horizontal keiretsu and the vertical keiretsu. The horizontal keiretsu revolves around a financial core, which always includes a major bank. There are six largest city banks (i.e., Dai-Ichi Kangyo, Sakura, Sumitomo, Fuji, Sanwa, and Mitsubishi) and a leading long-term credit bank, the Industrial Bank of Japan, which are commonly referred to as the center of their own industrial group. In Japan, the keiretsu led by these six city banks have a special name, the *roku dai kigyo shudan*, or Six Big Industrial Groups. In English, they are simply the Big Six. At the center of a horizontal keiretsu there is always a nominal "flagship", which is the city bank. However, there is often another behemoth - a trading company (shosha) - which is roughly equivalent to the bank in influence, sailing right beside it. There may even be a third firm, a giant manufacturer, also in this nucleus of the convoy. Around these two or three giants circle the core members, usually three financial firms, and one

Today's industrial groupings have long since surpassed the pre-war zaibatsu in economic importance. Their political influence is strong, though not comparable to that of pre-war zaibatsu families. About 1,000 of the most successful Japanese companies are members of the 17 largest industrial groups. In 1985, these 17 groups accounted for 27 percent of the aggregate paid-up capital, 25 percent of the annual turnover and 9 percent (2.9 million) of the employees of all Japanese companies (Eli, 1991).

<sup>&</sup>lt;sup>19</sup> There are various ways to classify a keiretsu, but the two most common classifications are the *yoko* (or horizontal), and the *tate* (or the vertical). A horizontal keiretsu refers to a group of very large companies with common ties to a powerful bank, united by shareholdings, trading relations, and so on. A vertical or pyramid keiretsu is made up of one very large company and hundreds or thousands of small companies subservient to it.

or two very large manufacturers. Together the financial firms, the trading company, and the group's key manufacturers give the keiretsu its identity.

In Malaysia, a similar kind of horizontal relationship exists within the political group. However, unlike in Japan where the relationship revolves around a financial core, the horizontal relationship in the politically-affiliated business group revolves around a few holding companies<sup>20</sup> which are directly owned by the United Malays National Organization (UMNO), Malaysia's dominant political party headed by Datuk Seri Dr. Mahathir Mohamad, the prime minister. The politically-affiliated business group is 100 percent bumiputera-controlled thus it is well-placed to take advantage of government's privatization schemes. They have stakes in several large companies with synergistic potential, such as stakes in large construction firms, materials manufacturing firms, cement manufacturers and several commercial banks. These large companies, together make up the horizontal relationship which is similar to that of the horizontal keiretsu in Japan.

To a large extent, the vertical relationship in keiretsu overlaps the horizontal relationship. That is, many of the biggest vertical keiretsu lie inside the borders of the Big Six. Almost all the Big Six companies are also the heads of their own vertical companies. There is also a similar vertical relationship that exists within the politically-affiliated business group in Malaysia. Each of the large key manufacturers and subsidiaries of the holding companies are also heads of their own vertical companies. For example, beneath United Engineers Malaysia (UEM), which is a large public-listed construction firm

One of the holding companies, Renong, is now controlled by investors closely allied to UMNO leaders.

owned by Renong, are other listed and non-listed firms. Four of the subsidiaries are listed on the Main Board of the KLSE. In the case of a construction company such as UEM, most of the subsidiaries are firms manufacturing products for the parent company. All of these companies produce some part or subassembly which ultimately works its way up the pipeline to benefit the company at the top of the pyramid. This relationship is similar to the vertical relationship in the keiretsu<sup>21</sup>.

Thus, the political group in Malaysia has horizontal and vertical relationships similar in spirit to those of the Japanese keiretsu. The relationship revolves around a holding company. It has government-owned banks that provide financing, and large key manufacturers that complete the nucleus of the group. However, while the main bank provides the main lending to the keiretsu firms, in the politically-affiliated group, government-owned banks and commercial banks are the main lenders.

The Japanese keiretsu also has the distinct characteristic of firms bailing out other firms in period of financial distress. Hoshi, Kashyap and Scharfstein (1990) found that group firms are helped in times of financial distress, not because it is efficient to help them out, but simply because the group is unwilling to let one of its members fail<sup>22</sup>.

There is a similar case of firms bailing out other firms in period of financial distress within the political group in Malaysia. One of the companies in the group, Faber, was saddled with accumulated debt in early 1990 but was bailed out by another company

(See Chart 1 for an example of horizontal and vertical relationships within the political business group).

Hoshi et al., suggested several reasons for this. Firstly, bankruptcy reflects badly on other group firms; secondly, the managers of other group firms feel a personal loyalty to the managers of the troubled company; thirdly, the bank executives are reluctant to admit that they made a mistake in extending credit.

in the group, Fleet Holdings23. Firms in the group are known to help out other firms in periods of financial distress. Even during a period of recession in the mid-1980's, these firms managed to sustain the financial turbulence unlike the independent firms.

#### **Profitability Performance**

In neoclassical economic theory, the objective of the firm is to maximize profits or market value. Under this framework, the objective of corporate groupings must be to maximize profits or market value of the member firms collectively. However, econometric analyses of financial performance data on large Japanese manufacturing firms have consistently reported negative effects related to group affiliation, and the hypothesis of joint profit maximization cannot be applied to corporate groupings (Nakatani, 1984). Nakatani<sup>24</sup> stressed that keiretsu groups in Japan has historically been under little pressure to maximize profit<sup>25</sup>. Their shares are largely held by one another, and the group banks supplying the bulk of their financing have long-term growth. Nakatani believes such strategies are driven by the Japanese firm's long-term employment obligations to its workforce. He also found group firms exhibiting greater profit stability and paying higher wages than independent firms. Nakatani found profit rate for group affiliated firms, on average, is significantly lower than that of independent

<sup>23</sup> see Gomez (1990), from page 83 to page 85.

Nakatani (1984) classified a manufacturing firm as affiliated with a keiretsu if, for three consecutive years, more than 40 percent of the firm's total debt was borrowed from financial institutions of the keiretsu and 20 percent of the firm's stock was held within the keiretsu, or if historically, it was associated with the keiretsu as, for instance, by long membership in the keiretsu presidents' council.

He conjectured that the formation of keiretsu group increased the monopoly power of respective members, but the monopoly power was utilized in the pursuit of a desired mode of distribution of output, as well as in stabilization of corporate performance over time.

firms and they have lower growth rates, but the variability of both the growth rate and profit rate of the group affiliated firms is much smaller than that of the independent firms<sup>26</sup>.

Weinstein and Yafeh<sup>27</sup> (1994) showed that corporate groups in Japan do not earn higher profitability and growth, but the close bank-firm ties increase the availability of capital when access to bond and equity markets is limited. They presented two main reasons for the failure of corporate groups to perform better than other firms. First, banks, as major debt-holders, are likely to be more risk averse than other equity holders. Second, in return for the provision of capital and other services, banks are able to extract rents from their client firms so as to offset any gains they may have over other firms. Banks enjoy more market power when firms do not have easy access to other sources of finance, and therefore can charge higher interest rates in exchange for liquidity services and influence firms to avoid risky but profitable projects. They further demonstrated that the liberalization of financial markets is important in reducing the market power of banks by enhancing the contestability of financial markets.

One of the major purposes of setting up the politically-affiliated business group in Malaysia is to create more bumiputera entrepreneurs. Initially, government corporations were formed<sup>28</sup> to provide loans and business opportunities to bumiputera small businesses. However, according to Jomo (1993),

Nakatani claimed that this is consistent with the hypothesis that the keiretsu member firms are not profit maximizers, and is also consistent with the stability of performance hypothesis which indicates a risk-averse concept.

David E. Weinstein and Yishay Yafeh (1995) examined the effects of a bank centered financial system on firm performance in Japan.

such as Rural Industrial Development Authority (RIDA) which was formed in the early 1960s, and Federal Industrial Development Authority (FIDA) which was formed in 1965.

"These 'infant' industries were not being forced or induced to grow up. There was little pressure to transfer technology or skills. There was admittedly some growth...
but it was small."29

However, the introduction of the NEP in the 1970 and subsequently, the switch from infant industries to export-oriented industries<sup>30</sup> gave a new impetus for industrial growth. Under the leadership of the Prime Minister, the government adopted the 'Look East Policy<sup>31</sup>' which emphasized heavy industrialization. The politically-affiliated business group was set up to take advantage of the government industrialization program and to encourage more bumiputera participation in business. Nevertheless, the World economic crisis in the middle of the 1980s had a major impact on the Malaysian economy<sup>32</sup>, and particularly on the politically-affiliated business group. This was because the politically-affiliated business group was involved in large investments with large capital outlays, and due to the economic recession, affected the profitability performance

<sup>&</sup>lt;sup>29</sup> Jomo (1993, p24)

<sup>&</sup>lt;sup>30</sup> According to Jomo (1993), "the new emphasis on export-oriented industries was supported by the NEP's commitment to modernizing Malaysia's open capitalist economy. Increasing local (including state) ownership of productive assets, especially in primary production, and even reduced foreign ownership of productive assets, especially in primary production, and even reduced foreign ownership of industry were no longer considered incompatible with further integration and profitable participation in the world economy... Various new measures - notably the establishment of Free Trade Zones from the early 1970s - were introduced to facilitate and encourage Malaysian manufacturing production for export.." (Jomo, 1993, p25)

<sup>&</sup>lt;sup>31</sup> The 'Look-East' policy was established in the mid-1980s as a campaign to boost productivity, by inducing hard work and promoting more effective models of labor discipline associated with the Japanese. It was also seen as a fairly wide-ranging series of initiatives to become a 'newly industrializing country' (NIC) by emulating the Japanese and South Korean 'economic miracles' The real thrust of the campaign was the promotion of labor discipline through organizing industrial relations to promote company loyalty (e.g. in-house unions), increase productivity (e.g. through better work ethics), and reduce losses (e.g. quality control circles, 'zero defect' groups). Perhaps the similarities between the Japanese keiretsu and the political business group are not by chance, but rather by design. It could be that the political business group was established with the 'Look-East' policy as the guideline, that is, to form a business group that resembles the Japanese keiretsu group.

To examine the Malaysian economic impact on the political business group, the period of study of this dissertation is divided into two periods. The first period is from 1985 to 1989, which is also the post recession period, and the second period is from 1990 to 1994, which is the post NEP period.

of the group. The first period of my study, that is from 1985 to 1989, is the post recession period. It is also a period of 'turning around' for most businesses, since "by the end of the 1980s, the industrial sector in Malaysia was once again expanding at a rapid rate<sup>33</sup>."

Statistics on the corporate groups in Japan show a lower profitability and growth rate compared to independent firms (Nakatani, 1984; Weinstein and Yafeh, 1995). However, due to the recession in the middle 1980s, the profitability performance of the politically-affiliated business group may not be any different than that of the independent group during the first five-year study period, that is from 1985 to 1989, since most businesses were only starting to pick up the pieces left from the recession period. Nonetheless, the second five-year period of the study may witness some differences in profitability performance, since most of government privatization<sup>34</sup> projects took place during this period (See Appendix 2 for a summary of privatization projects and forms of privatization).

4.4

<sup>3</sup> see Jomo (1993, p 34).

<sup>&</sup>lt;sup>34</sup> Privatization in Malaysia officially began in 1983, well after Mahathir had taken over as Prime Minister in 1981. Unlike the 'Look East' policy and the 'Malaysia Incorporated' concept -also associated with Mahathir's administration -which appear to have faded in significance by the mid-1980s, privatization has achieved a new vigor, especially with support, encouragement and advice from powerful international agencies, and the economic downturn of 1985-86 (Jomo, 1990, p212).

### Investment Decisions and Financing Behavior35

Meyer and Kuh (1957) provided three theories of investment, i.e. the marginal theories, the acceleration principle, and the institutional-empirical approaches<sup>36</sup>. Their empirical results suggest the importance of internal liquidity in making investment decisions. During 1928 and 1949 when economic conditions in the United States stabilized or declined in several lines activity, the two liquidity measures, i.e. profits and depreciation expense, provided the best explanation of investment future outlay. High liquidity signals that the firm has done well and is likely to continue doing well. Thus, more liquid firms have better investment opportunities, and they tend to invest more.

In a spirit similar to Meyer and Kuh, Hoshi, Kashyap and Scharfstein (1990), focused on liquidity to predict the investment behavior of the corporate group and independent group in Japan. They adopted Nakatani's (1984) criterion for identifying keiretsu members and nonmembers and for exploring differences in the investment behavior between the two classes. They argued that keiretsu banks have strong incentives to become informed about their firms and their investment opportunities, and that they use the information to ensure that efficient choices are made. The reason is that the banks, besides being lenders to the firms, are also important stockholders with representation on the board of directors. They presented evidence consistent with the

There are three methods of financing an investment project. A firm can either raise funds by, i) issuing debentures or shares, which is the direct financing method since it obtains funds directly from the public; or ii) obtaining loans from some financial institutions, which is the indirect financing method, since the financial institutions stand between the public, the providers of the funds, and the firm, the source of demand for funds; or iii) obtaining fund internally, that is, out of depreciation funds and retained profits.

<sup>&</sup>lt;sup>36</sup> see Meyer and Kuh (1957), chapter II for a complete discussion of the three modern theories of investments

view that information and incentive problems<sup>37</sup> in the capital market have important effects on corporate investment. Their evidence came from the fact that investment by firms, with a close relationship to a bank is much less sensitive to their liquidity than firms raising their capital through more arms-length transactions.

Hoshi et al., interpreted their findings as evidence that group financing arrangements relax liquidity constraints on group-affiliated firms. Yoshihara (1988) also provided a similar interpretation for the politically-affiliated business group in Malaysia. Firms in the politically-affiliated business group are less liquidity constrained than independent firms because financing is provided by government-owned banks.

Furthermore, commercial banks are also under political pressure to provide loans to firms in the politically-affiliated business group, while the central bank was reported to have waived single borrower lending limits<sup>38</sup>. This sort of financing arrangement not only removes the dependency on either foreign funds or foreign partners, it also offers firms in the politically-affiliated business group an important competitive advantage.

<sup>&</sup>lt;sup>37</sup>The capital market models suggest that due to information problems in the market, more liquid firms should invest more. Jensen and Meckling (1976) argued that incentive problems raise the cost of external finance. Outside financing dilutes management's ownership stake, thereby inducing incentive problems since managers control the firm but do not own it. Myers and Majluf (1984) stressed that information problems, rather than incentive problems, that will raise the cost of external finance. Both reached a similar conclusion that since it is more attractive for firms to finance investment with internal funds, for firms facing incentive and information problems, liquidity will be an important determinant of investment.

<sup>38</sup> see Jacqueline Ho, Malaysian Business, October 1, 1993, p14.

#### Summary

The purpose of this dissertation is to examine the issues of profitability performance, investment and capital structure behavior of the firms in the politically-affiliated business group in Malaysia, and to compare their performance with that of firms in the independent group. Thus the objective of this chapter is to discuss the development of theory of corporate grouping developed for the Japanese keiretsu and relate this to the politically affiliated corporate grouping in Malaysia.

This chapter discusses the Malaysian political involvement in business, and adopts the theory that relates it to the Japanese corporate grouping to explain the behavior of politically-affiliated business group in Malaysia. The first section discusses the New Economic Policy and political involvement in business in Malaysia. The second section reviews the literature on the corporate grouping in Japan. The third section discusses similarities and differences in corporate structure between the Japanese keiretsu and the Malaysian politically-affiliated business group.

There are several similar characteristics possessed by the Japanese keiretsu and the Malaysian political group. First, like the two relationship classifications of the Japanese keiretsu, the relationships within the political group in Malaysia can also be classified into horizontal and vertical relationships. The horizontal relationship revolves around a holding company, it has government-owned banks that provide the financing, and large key manufacturers that complete the nucleus of the group. However, while the main bank provides the main lending to the keiretsu firms in Japan, the government-

owned banks and other commercial banks in the politically-affiliated business group in Malaysia are the main lenders. The vertical relationship in the politically-affiliated business group exists in the form of large key manufacturers and other subsidiaries of the holding companies owning firms that manufacture products for the parent company. All of these companies produce some part or subassembly which ultimately works its way up the pipeline to benefit the company at the top of the pyramid.

Perhaps the similarity should not surprise anyone if he or she understood the prime minister's "Look-East" policy in the early 1980's (see footnote 34). The "Look East" policy of the prime minister was aimed towards industrializing the country following the "Japanese way of doing business". A host of Dr. Mahathir "looking East" policy initiatives include heavy industrialization, the preference for 'turn-key project' arrangement, and the Malaysian car project. He further emphasized that the main thrust in "looking East" involved the inculcation of Japanese-style work ethics, mainly referring to efforts to increase productivity through harder work and greater loyalty to the company. Thus "sogo-shosha" was the main theme for this group during the past decade.

The second similarity lies with the fact that both the keiretsu group and the politically-affiliated business group are not liquidity constrained. Hoshi, Kashyap and Scharsftein (1990) found that group financing arrangements in Japan relax liquidity constraints for the group-affiliated firms. Yoshihara (1988) also provided similar interpretation for the politically-affiliated business group in Malaysia. Firms in the politically-affiliated business group are less liquidity constrained than independent firms because financing is provided by government-owned banks.

The third similarity is that, like their Japanese counterpart, firms in the Malaysian politically-affiliated business group also bail out one another in periods of financial distress.

Nevertheless, there are several issues which may differentiate the characteristics of the Japanese keiretsu and the politically-affiliated business group. If the nucleus of the group in the Japanese counterpart centers around a main bank, the nucleus of the politically-affiliated business group centers around a holding company with very close to the United Malays National Organization, UMNO, a ruling political party. Furthermore, Nakatani (1984) found significantly lower profit and growth rates for group affiliated firms, but on average, the variability of profit and growth rates are also much smaller, Weinstein and Yafeh (1994) showed that the corporate groups in Japan do not earn higher profitability or generate greater growth. These are some of the underlying issues that this study hopes to examine for the politically-affiliated business group and to compare with the independent group in Malaysia. In other words, like the Japanese corporate group, does the politically-affiliated business group earn lower profits and achieve lower growth rates than the independent group in Malaysia? Would its investment decisions and financing behavior be different than that of the independent group? The next chapter will discuss the hypotheses developed for this study.

#### CHAPTER III

#### THE HYPOTHESES

#### Introduction

The review of previous studies demonstrates that there are several evidence on the behavior of corporate groupings. For instance, while group affiliation is negatively related to profits, the variability of profits is also much lower in group affiliated firms than independent firms [Nakatani (1984), Demsetz and Lehn (1985)]. On the issue of investment and financing decisions, Hoshi, Kashyap and Scharfstein (1991) argued that liquidity is less constrained in group-affiliated firms compared to independent firms, based on Meyer and Kuh's (1957) contention that liquidity is an important determinant of investment

The objective of this study is to test the preferential treatment hypothesis based on the theory of corporate grouping. There are three issues to be examined here, i.e., the profitability performance, the investment decision, and the financing behavior. These three issues will be examined to compare the difference between politically-affiliated business group and independent group. The first section of this chapter will formulate the three main hypotheses for the study. The second section will discuss the dependent and independent variables. The last section summarizes the chapter.

Profitability Performance, Investment Decision and Financing Decision

Over the past several years, Malaysia' economy has grown at an annual rate exceeding eight percent. Behind the strong performance of private industry is increased government spending. According to the Economic Report of 1994/1995 issued by the Ministry of Finance, public investment in 1994 increased by 29 percent from RM21,426 million in 1993 to RM27,635 million with the implementation of Sixth Malaysia Plan (6MP) projects which gathers momentum towards the end of its plan period (Economic Report, 1995). The bulk of the government mega projects are most often be awarded to the politically-affiliated business group firms, since this group not only is 100% bumiputera-controlled, it is also closely affiliated with the ruling party. Thus this group often gets preferential treatment whenever it comes to government-awarded contracts<sup>39</sup>.

The literature review reports inconclusive results on the relation between profitability performance and corporate groupings. Nakatani (1984) reported that profit rate is lower for affiliated firms than independent firms and he found support in Weinstein and Yafeh (1995) and Prowse (1990). Nakatani (1984) found that not only are profit and growth rates lower for group affiliated firms in Japan, but their variability in profit and growth rates are also much lower. Thus he concluded that affiliated firms seek to stabilize profits and growth over time. This is consistent with Weinstein and Yafeh (1995) who suggested that the reason the profit rate is lower for the affiliated firms is because banks, as the major lender, are risk averse, thus banks prefer less risky projects with lower returns than risky projects with higher returns. However, even though

<sup>&</sup>lt;sup>39</sup> see Yoshihara (1988), page 125.

Prowse (1992) found a lower profit rate for group-affiliated firms compared to independent firms in Japan, he found no difference in the volatility of asset returns between these two groups.

On the contrary, the Malaysian politically-affiliated business group may not have lower profit and growth rates than independent group. Since 1970, the government has pursued a policy aimed at stimulating economic growth in order to lift the Malays out of poverty and into parity with the country's other races. Thus, the preferential treatment given by the government may stimulate growth and develop Bumiputera entrepreneurship. Consequently, the assertion is that profit and growth rates for the politically-affiliated group will be higher than independent group.

Kester (1986) suggested that information effects favor relatively higher leverage in Japan. His argument is based on a previous finding by Myer and Majluf (1984). Myer and Majluf showed that if there is an asymmetry of information, then companies with favorable prospects tend to have higher leverage ratios. These companies rely more on internal financing and the issuance of safe securities to avoid the underpricing of an otherwise valuable project. Alternatively, Hoshi, Kashyap and Scharfstein (1991) showed that liquidity, i.e., the availability of internal funds, should be an important determinant of investment when there are information problems in the capital market. They found that firms with close ties to a Japanese main bank (i.e., a bank that serves as their primary source of external financing and thus is likely to be well informed about the firm), are less liquidity constrained than firms with weaker links to a main bank.

The politically-affiliated business group is often involved in projects of national importance and they tend to get easy access to bank loans from commercial banks and government-owned banks, since, according to Yoshihara (1988), banks in Malaysia are under heavy political pressure to extend loans to the political group.

Yoshihara (1988) claimed that the politically-affiliated business group in Malaysia managed to get easy access to loans provided by government-controlled banks and private loans through their political influence. Therefore, intuitively, firms in the politically-affiliated business group in Malaysia are less liquidity constrained than independent firms. Based on Yoshihara's assertion, it is my conjecture that the politically-affiliated business group is less liquidity constrained simply because of political patronage or preferential treatment rather than of information asymmetry. Additionally, through political influence, the politically-affiliated business group not only manages to get easy access to loans provided by government-controlled banks (i.e., which may determine its financing decision), it is often the largest beneficiary of government projects (i.e., which may subsequently determine its investment decision).

# Hypothesis

The hypotheses of this study are as follows:

HYPOTHESIS I: Given that the firms in the politically-affiliated business group in

Malaysia obtain preferential treatment from the government, they are more likely to

venture into profitable projects, thus this study may observe higher profitability

performance for the politically-affiliated group. On the other hand, these projects are also

of national importance and meant for public consumption, thus, return from government projects may be small but stable. The preferential treatment hypothesis predicts that the politically-affiliated business group in Malaysia not only has superior profitability performance measures compared to independent group, it also predicts that the determinants of profitability performance for the group are different than independent group.

HYPOTHESIS II: Given that the country is gearing itself towards achieving a developed country status, government spending is increasing at a rapid rate. Thus, the preferential treatment hypothesis predicts that the politically-affiliated business group in Malaysia has higher investment measure compared to that of the independent group. Consistently, since the politically-affiliated business group is often involved in government privatization plans and the building of the infrastructure for the nation, its investment decisions are basically being determined by politicians. Thus the preferential treatment hypothesis predicts that the politically-affiliated business group in Malaysia exhibits different investment behavior pattern compared to independent group. HYPOTHESIS III: Given that firms in the politically-affiliated business group are closely affiliated to the ruling party, they get easy access to bank loans and loans from government owned banks. In order to avoid reliance on foreign funds, commercial banks in Malaysia are under political pressure to extend loans to firms in the politicallyaffiliated business group. The preferential treatment hypothesis predicts that firms in the politically-affiliated business group in Malaysia are less liquidity constrained, and since

they prefer to raise loans to finance their investments, have a different financing behavior pattern than firms in the independent group.

## The Explanatory Variables

## Liquidity (LIQ)

Previous study found group-affiliated firms in Japan to be less liquidity constrained than independent firms [Hoshi, Kashyap and Scharfstein (1991)]. Hoshi, et al., provided some evidence which suggests that liquidity is an important determinant of investment, and more so for independent firms than for group-affiliated firms. Thus, when liquidity is high, a firm will utilize internal funds to invest in profitable projects rather than raising capital through loans. Additionally, there will be lesser need for outside financing. This indicates a negative relation between liquidity and financing.

Meyer and Kuh (1957), who pioneered the study of liquidity effects on investment, used the stock of net quick liquidity, i.e., current assets less inventory and current liabilities, as a liquidity measure. They found that liquidity is an important determinant for investment. Hoshi, Kashyap and Scharfstein (1990) used two measures of liquidity. The first was a cash flow measure, which is income after tax plus (accounting) depreciation less dividend payments. The second was the stock of liquid assets measure, which is the level of short-term securities at the beginning of the period.

Since firms in the politically-affiliated business group are often involved in projects of national importance, they get preferential treatment in obtaining bank loans

from government-controlled banks and commercial banks. Thus I expect firms in the politically-affiliated business group to be less liquidity constrained than independent firms.

On the issue of the relationship between liquidity and investment decisions, I expect liquidity to be positively related to investment decisions for independent firms but not for firms in politically-affiliated business group, since independent firms will have to rely more on the availability of liquidity in order to make future investment plans, while firms in the politically-affiliated business group do not.

Liquidity should also be negatively related to financing since based on pecking order theory, firms with high liquidity will tend to choose internal funds for investment purposes, rather than raising outside financing. Additionally, based on the same theory, I expect a positive relation between liquidity measures and profitability measures.

#### Risk measures

I use three measurements of risk. Two measures to proxy for operating risk, and one to proxy for the systematic risk of an investment. The traditional theory of relating risk and rate of return assumes that most stockholders are risk averters, and therefore require a higher return, i.e., risk premium, for taking on more risk. Under this "risk premium hypothesis", earning volatility should be positively related to return.

Earnings volatility is expected to be negatively related to leverage ratio since high-earnings volatility implies a higher probability of financial distress occurring.

However, previous studies found a positive relation between leverage and operating risk

[Myers (1977); Kim and Sorensen (1986); and Chang and Rhee (1990)], while Bradley, Jarrell and Kim (1984) and Jensen, Solberg and Zorn (1992) found a negative relation between risk and leverage.

On the issue of whether the politically-affiliated business group has higher risk measures compared to independent firms, prior discussion leads me to believe that firms in the political group are seldom involved in high risk projects. Thus, it is uncommon to find firms in the politically-affiliated business group who suffer from liquidation problems. However, due to the close group affiliation, even if the probability of bankruptcy exists among these firms, other firms will step in to bail out firms in financial distress.

According to Nakatani (1984), firms in the keiretsu group have lower profits and growth compared to the independent group, but their variability of profits and growth are much lower. This is due to fact that keiretsu firms moved towards achieving long-term stability. We can observe a similar scenario in Malaysia, whereby the horizontal and vertical relations that exist between firms in the political group should ensure long-term business stability. Nevertheless, I believe not only does political patronage ensure the long term financial stability of this group, but also that the corporate expertise of these group firms has lead to the rise in business fortunes for this politically-affiliated business group. Thus I expect operating risk to be lower for politically-affiliated group than for independent group.

The expected return on a risky asset should be dependent only on that asset's systematic risk. Since beta indicates how the individual stock return moves with the

market, if beta is less than 1, then it will indicate that the stock is generally less risky than the market and if it is more than 1, then this will indicate that the stock is generally riskier than other stocks in the market. The price of a stock reflects an investor's overall expectation of the value of the stock. In other words, the risk measurement indicates how investors view the stock return performance of a firm. Do investors regard the politically-affiliated business group as a riskier investment than the market?

Under the "risk premium hypothesis", this study expects the risk measures to be positively related to return. Based on previous assertion that high operating risk firms tend to use higher debt, this study expects a positive relation between risk and leverage.

#### Firm Size

In economics literature, market-structure factors play an important role in determining firm's profits. As suggested by Bain (1956), firm size can be regarded as a sort of "capital requirement" barrier of entry. Additionally, Baumol (1959) argued that large firms have greater access to capital and have higher profits. As the capital-cost aspects of an entry barrier, firm size is expected to be positively related to profitability. On the other hand, size and profitability may be negatively related owing to x-efficiency or diseconomies of scale. X-efficiencies is referred to as the inefficiency caused by poor management with internal slack or waste. This argument is equivalent to Jensen and Meckling's (1976) agency-cost argument. According to Jensen and Meckling, the larger the firm size, the higher the agency cost, thus, low profitability is expected. Therefore the

net impact of firm size on profitability depends on the trade-off between the positive effect of an entry barrier and the negative effect caused by agency problems.

The firm size effect has received wide attention in both the popular and academic financial literature. Reinganum (1981) and Banz (1981) found that small firms, on average, yield higher returns compared to large firms. Using time-series data, Fama and French (1992b) found firm size to have strong explanatory power of average cross-sectional stock returns. Consistently, Fazilah (1996) also observed a small firm size effect in Malaysia. She found that small firms on average obtain higher risk-adjusted rates of return than large firms. Market-adjusted returns are also used as an alternative measure of performance.

Additionally, Chang and Rhee (1990) found that large, well-established firms have easy access to the capital markets, while small, new firms do not. Titman and Wessels (1988) provided another explanation for the firm size effect. According to them, small firms may be more leveraged than large firms since it is more expensive for small firms to issue new equity. Thus, small firms may prefer to obtain short term loans rather than issue long term debt because of lower fixed costs associated with this alternative. Their results showed that there is a positive relationship between size and debt-to-book value of equity. They used the natural logarithm of sales as an indicator of size.

Based on previous studies, I expect a positive relation between financing measure and firm size, and a negative relation between firm size and profitability performance.

#### Growth

Finance and economic researchers have historically agreed that there is a positive relationship between firm growth and debt, ceteris paribus. Hurdle (1974) contends that if growth is expected to be temporary, stockholders might wish to finance through debt to avoid dilution of their control. This argument is consistent with the pecking order theory. Rapid growth may imply higher debt capacity and on ability to pay interests; lenders may charge a lower cost to the firm with sound future prospects.

However, from the agency theory framework, Titman and Wessels (1988) argued that firms in growing industries suffer higher agency cost of debt due to higher opportunities of asset substitution. In addition, growth opportunities are valuable assets but they cannot be collateralized, thus Titman and Wessels, consistent with Jensen and Meckling (1976), Myer (1977) and Stulz (1990), suggested a negative relation between debt and growth. Consistently, Lang, Ofek and Stulz (1995) also found a strong negative relation between leverage and growth. They argued that firms with greater leverage than the industry median grow at a rate less than the industry median.

Additionally, Tobin and Brainard (1977) employed a valuation equation which relates the current market value (which reflects the expected future cash inflows discounted at the appropriate discount rate) to the replacement costs of assets as a yardstick against which the market value of firms may be analyzed. By expressing the total market value of the firm in relation to the replacement value of the underlying assets, called the Tobin's q ratio, the excess market value of the firm is measured.

Tobin's intent was to examine the causal relationship between growth and investment.

He argued that if, at the margin, q exceeds unity, firms would have an incentive to invest, since the value of their new capital investment would exceed it's cost. Thus there should be a positive relation between growth and investments.

I would expect politically-affiliated firms to have higher growth measures than independent firms since they have easier access to government-awarded projects, and since more growth opportunities are made available to them. On the issue of the relation between growth measure and the endogenous variables, based on previous literature, I expect a positive relation between the growth measures and investment decisions, and between growth measure and financing decisions.

# Industry classification (IC)

Titman (1984) showed that firms that make products requiring the availability of specialized servicing and spare parts will find liquidation especially costly. This indicates that firms that manufacture machines and equipment should be financed with less debt. Previous researchers have found industry classifications a significant predictor of financial structure. This implies that the optimal capital structure may vary by industry structure. Industry classification can be used as a proxy for business risk. However, industry classifications may also act as proxy for other factors affecting capital structure. Marsh's (1982) results indicated that industry classifications are correlated to asset composition, risks, growth and profits. This study classifies firms into three industry

classifications, based on the sector groupings from the New Straits Times and KLSE Industrial groupings.

## Summary

The objective of this study is to test the preferential treatment hypothesis. The three major measures to be examined are the profitability performance measures, the financing measures and the investment measures. This study presents three hypotheses which relate to the preferential treatment hypothesis. The first hypothesis is that the politically-affiliated business group in Malaysia has better profitability performance measure being in an affiliated group rather than not. The second hypothesis is that the politically-affiliated business group exhibits different investment behavior pattern compared to independent group. The third hypothesis is that firms in the politically-affiliated business group have a different financing behavior pattern than firms in the independent group.

The dependent measures in this study are the profitability performance measures, the financing decision measures and the investment decision measures, while the independent measures are represented by liquidity, risk, size and growth measures. The discussion on the dependent and independent variables lead us to several hypotheses. Based on previous studies, this study hypothesizes a positive relationship between liquidity measure and the three dependent measures; a positive relationship

between risk measures and profitability performance measures, and negative relationship between risk and leverage measure; a positive relationship between size and financing measure, and a negative relationship between size and profitability measure; and finally, a negative relationship between growth and investment and also financing decisions.

#### **CHAPTER VI**

#### DATA AND RESEARCH METHODOLOGY

#### The Data

The sample consists of firms classified as either politically-affiliated or independent. Politically-affiliated firms are defined as firms with close affiliation with the ruling political party, i.e., the United Malays National Organization (UMNO).

Independent firms are defined as firms which are not affiliated with the ruling party.

# Selection of Politically-Affiliated Business Group

Firms in the politically-affiliated business group are identified from the Kuala Lumpur Stock Exchange Handbooks, holding company annual report<sup>40</sup>, news articles in The New Straits Times, The Star Newspapers, The Far Eastern Economics Review, The Wall Street Journal, Gomez (1995) and Cheong (1996). From these sources, I managed to trace six holding companies which are closely affiliated to the ruling party.

Next, from company annual reports and from the Kuala Lumpur Stock

Exchange handbooks from 1988 to 1995, I identified forty one subsidiary companies of

42

<sup>40</sup> Renong Annual Report, 1995.

these six holding companies. This gave me a total of forty seven public-listed companies, five in the financial industries and forty two in the non-financial industries. However, since I only selected non-financial firms with complete data from January 1985 to

December 1994, the final sample of politically affiliated firms was 35. Firms are divided into three industrial groups. These industrial groups are based on the sector groupings of the New Straits Times and the Kuala Lumpur Stock Exchange Industrial grouping. The first group contains firms from the consumer products, trading services and hotels sectors. The second group contains firms from the industrial products, construction and properties sectors, while the third group contains firms from the plantation and mining sectors. The final sample of 35 firms consists of 23 firms in the first group, 5 firms in the second group and 7 firms in the third group.

# Selection of Independent Firms

The independent firms are selected from the Kuala Lumpur Stock Exchange

Handbooks. I traced the ten largest shareholders of the companies, and confirmed that

none of the independent firms are affiliated to the ruling party nor to the firms in the

politically-affiliated business group in the form of ownership.

I included two types of independent firms selections. The first selection contains a matching set of independent firms. These firms are matched with firms in the politically-affiliated group according to industrial grouping and size. Since the politically-affiliated group contains 23 firms in the first industrial group, 5 firms in the second

industrial group, and 7 firms in the third industrial group, the matching independent group also contains equal number of firms in each industrial group, all of equal or almost equal size to the politically-affiliated firms in the same industrial groupings.

The second selection of independent firms contain a set of fully independent firms also coming from the same industrial grouping. Since the politically-affiliated business group is more concentrated in terms of ownership structure, the second selection is based on 35 firms from the same industrial group with more diluted ownership. The selection of 35 independent firms with diluted ownership is determined from the ten largest shareholders from the last three editions of the KLSE handbook, i.e., 1992, 1993 and 1994. This analysis may provide some contrasting evidence with respect to the effect of concentrated ownership on profitability performance, financing decisions and investment measures. By selecting fully independent firms, we may be able to disentangle the effect of ownership concentration on the three issues under study.

Berle and Means<sup>41</sup> (1932) defined control as the power to select the board of directors. They measured ownership as 20 percent or more of voting stocks owned by an individual or a group of stockholders. Herman (1982) suggested ownership of 5 percent of a firm's common stocks as a benchmark, beyond which ownership is no longer negligible. Morck, Shleifer and Vishny (1988) also found 'conditions necessary for

<sup>&</sup>lt;sup>41</sup> The basic argument of Berle and Means is that the modern day corporation have grown so large that a few of these control a major proportion of the financial assets of the corporate economy. This increase in size has led to a dispersion of share ownership. This phenomenon has resulted in a situation in which the 'owner of industrial wealth is left a mere symbol of ownership, while the power, the responsibility and the substance which have been an integral part of ownership in the past are being transferred to a separate group in whose hands lies control' (1932:68). They measured ownership control by the ownership of at least 20 percent voting stocks by an individual or a group of stockholders. Control is measured simply by the percentage of stocks owned by an individual or group of stockholders.

entrenchment .. not much different for firms with greater than 25 percent board ownership' (p. 295). Among the 100 largest corporations in the Kuala Lumpur Stock Exchange, Lim (1981) found that stock ownership is 'highly concentrated in the hands of a few institutions and ultimately, a few wealthy families' (p. 114). Based on Berle and Means definition of ownership control, the second selection of independent firms contains firms with less than 20 percent of voting stocks held by an individual or a group of stockholders.

The rational of employing the two independent firm selections is to provide a broader analysis of the study. In other words, I may be able to compare the politically-affiliated business group with not only independent firms of the same sizes and industry groupings, but also with independent firms of more diluted ownership.

# Selection of Industrial Grouping

The selection of industrial grouping is based on the sector groupings from the New Straits Times and KLSE Industrial groupings. The business section of the New Straits Times classified firms into 11 industries<sup>42</sup>. Since the politically-affiliated firms can only be found in eight of these eleven industries, this study divides these eight industries into three industrial groups. Group 1 consists of three industries, i.e., consumer products, trading services and hotels; Group 2 consists of three industries, i.e., industrial

<sup>&</sup>lt;sup>42</sup> i.e., consumer products, industrial products, construction, trading services, infrastructure, finance, hotels, properties, plantation, mining and trust (The New Straits Times, October 9, 1996, p31).

products, construction and properties; Group 3 consists of two industries, i.e., plantation and mining.

## Period of Study

For the study, the data was separated into two five-year sub-periods. The first sub-period is from 1985 to 1989. The second sub-period is from 1990 to 1994. This separation was chosen because the New Economic Policy (NEP) ten-year plan ended in 1990 and the post-NEP era, when government ruling on Bumiputera equity ownership was no longer strictly emphasized, began in 1990.

Additionally, 1990 marks the beginning of the period of government privatization plans, thus the two five-year periods before and after post-NEP will provide a comparative analysis of the performance of the politically-affiliated business group. It may offer some insights into whether the government privatization plans had any positive impact on the performance of the politically-affiliated business group. Finally, the first sub-period from 1985 to 1989 marked the start of the recession and recovery period<sup>43</sup> in Malaysia. This may offer some insights into whether the politically-affiliated business group had similar financial crises like firms of the independent group. The choice of 1994 as the end of the second sub-period is due to data limitations.

The recession period was from 1984 to 1986, and the period of recovery was from 1987 to 1988.

#### Data Source

The following files are retrieved from the PACAP Databases-Malaysia compiled by the Sandra-Ann Morsilli Pacific-Basin Capital Markets Research Center (PACAP) at the University of Rhode Island:

- 1) Financial Statements file for Industrial Companies to get annual accounting data.
- 2) Monthly Stock Price and Returns file to get monthly stock return data.
- 3) Monthly Market Index file to get monthly market return data.
- 4) Key Economic Statistics file to get the 12-month Treasury Bill rates.

Data are also checked against the Kuala Lumpur Stock Exchange Annual Handbook and the annual reports of various companies.

# Dependent Variables

# **Profitability Measures**

I use three alternative measures of profitability performance: return on equity (ROE), return on assets (ROA), and market-adjusted returns. The first two measures, ROE and ROA are a replication of the measurement used in Nakatani (1984), while the market-adjusted return measure is consistent with Kang's and Shivdasani's (1995)

measure of performance. ROA and ROE are two measures of accounting profit while market-adjusted return is a measure of economic profit. The main difference between the accounting profit and economic profit is that the former does not focus on cash flows when they occur, whereas the latter does. The economic definition of profit correctly deducts the entire expenditure for investment in plant and equipment at the time the cash outflow occurs.

The profitability measures are as follows:

- 1) Return on assets = net income after taxes/ total assets
- 2) Return on equity = net income after taxes/ shareholder's equity
- 3) Market adjusted returns  $(R^*_j) = R_j R_m$  where,

R\*<sub>j</sub> = market-adjusted annual return for stock j;

 $R_i$  = annual stock return for stock j;

 $R_m = market return.$ 

# **Investment Decision Measures**

The first investment decision measure is a replication of Hoshi, Kashyap and Scharfstein (1991). It is given by:

INV1 = I/K

where I = changes in net fixed assets between period t and period t-1

K = total fixed assets in period t-1

Since the objective of this study is to examine the investment decisions of the political firms, that is, how these firms decide on what future investments they should undertake, the above ratio will indicate that the higher the ratio, the higher be the level of investment by the firm. However, this reasoning may not be applicable to the political firms, since most of their future investment projects will be directly or indirectly related to government expenditure plan.

The second investment measure is given by:

INV2 = net fixed asset / book value of total asset

It measures the capital intensity of the firm. The higher the ratio, the higher will be the use of capital.

The difference between the two measures is that the first is a flow measure and the second is a stock measure.

# Financing Decision Measure

The financing decision measures are given as follows:

FIN1 = (total liabilities - current liabilities)/ (total liabilities - current liabilities + book value of equity)

FIN2 = interest-bearing loans / (interest-bearing loans + market value of equity)

The first measure examines the effect of long term liabilities and book value of equity on the financing decision, while the second measure examines the debt to equity ratio as the financing decision.

## **Explanatory Variables**

# Liquidity (LIQ)

Following Hoshi, Kashyap and Scharfstein (1988), this study uses income after tax plus (accounting) depreciation less dividend payments as a liquidity measure.

## Risk Measures

This study examines two types of risk, the operating risk and the systematic risk. The operating risk has two measures, one is the coefficient of variation of annual percentage change in net operating income, an indicator of earning variability (CV1), and the other is coefficient of variation of annual percentage change in sales, an indicator of sales variability (CV2). Coefficient of variation is standard deviation of mean divided by mean. It measures the percentage of standard deviation relative to the mean annual changes. This is an alternative indicator for volatility. The two measures, CV1 and CV2 represent the operating risk of the firm, which is also known as unsystematic risk.

The third measure of risk is beta which represents the systematic risk. The formula for beta is given by the covariance between returns on a the risky asset and market portfolio, divided by the variance of the market portfolio. It is a comprehensive

<sup>&</sup>lt;sup>44</sup> This is consistent with Titman and Wessels (1988).

measure which captures the systematic risk of the firm's common stock relative to the market portfolio. It consists of business, operating and financial risk of the firms.

### Firm Size

The natural logarithm of market equity is the indicator of size.

## Growth

There are two growth indicators, the annualized compound growth rate in total assets, which is consistent with Titman and Wessels (1988), and Chang and Rhee (1990), and Tobin's q. This study uses proxy for q following Kang and Stulz (1995) which is defined as the ratio of total liabilities plus market value of equity to total liabilities plus book value of equity.

## **Industry Classification (IC)**

This study classifies firms into three industry classifications, based on the sector groupings from the New Straits Times and KLSE Industrial groupings. Group 1 consists of three industries, i.e., consumer products, trading services and hotels; Group 2 consists of three industries, i.e., industrial products, construction and properties; Group 3 consists of two industries, i.e., plantation and mining. D1 is equal to 1 if group equals to 1; and zero otherwise. D2 is equal to 1 if group equals to 3 and zero otherwise. The control variable is group 2.

# **Group Dummy**

G is equal to 1 for politically-affiliated group and zero otherwise.

## Research Methodology

To test the preferential treatment hypothesis, I use cross-sectional ordinary least squares regression approach and regress the profitability performance measures, the investment decisions measures and financing behavior measures against five explanatory variables, i.e., liquidity, risk, size, growth and industry dummy.

The whole period regression analyses use ten-year average of data of each firm. The sub-period regression analyses use five-year average of data of each firm. The regression analyses are first conducted for the whole period and the two sub-periods for the politically-affiliated business group and the two selections of independent group.

Only dummy variables for industry classifications will be included. D1 represents industrial group 1, while D2 represents industrial group 3.

Next, the regression analyses will be conducted for the whole period and for the two sub-periods for the entire samples. A dummy variable, G, will be included where G is equal to 1 to represent the politically-affiliated business group and 0 otherwise.

Non-parametric analyses are conducted to compare the average of ten-year statistics and five-year statistics (for two sub-periods) between politically-affiliated group and the two independent groups. Additionally, the average of five-year average statistics for the politically-affiliated business groups are compared between the two sub-periods.

## The Models

## The Endogenous Variables

- i) Profitability Measures: ROA, ROE, R\*<sub>j</sub>
- ii) Investment Decision Measures: INV1, INV2

where

INV1 = changes in net fixed investments / total fixed investments

INV2 = net fixed asset / book value of total asset;

iii) Financing Decision Measures: FIN1 and FIN2

FIN1 = (total liabilities - current liabilities) / (total liabilities - current liabilities

+ book value of equity)

FIN2 = (interest-bearing loans) / (interest-bearing loans + market value of

equity)

# The Exogenous Variables

The exogenous or independent variables are LIQ, CV1, CV2,  $\beta$ , SIZE,

GRW, Q, IC, G

where LIQ = income after tax plus accounting depreciation less

dividend payments;

CV1 = The coefficient of variation of annual changes in net operating income;

CV2 = The coefficient of variation of annual changes in net sales;

 $\beta$  = beta;

SIZE = log (market equity);

GRW = annual compound growth rate in total assets;

Q = (total liabilities + market value of equity )/( total

liabilities + book value of equity);

IC = D1 = 1 if industry is 1; and zero otherwise;

D2 = 1 if industry is 3; and zero otherwise.

DUMMY G = 1 for politically-affiliated business group and 0 otherwise.

# The Ordinary Least-Squares Models

The ordinary least-squares and the expected signs of coefficients of the models which include all independent variables are as follows:

i) ROA, ROE, 
$$R^*_i = \alpha_0 + \alpha_1 LIQ + \alpha_2 RISK - \alpha_3 SIZE \pm \alpha_4 D1 \pm \alpha_5 D2 \pm \alpha_6 G$$

ii) INV1, INV2 = 
$$\gamma_0 + \gamma_1 \text{LIQ} - \gamma_2 \text{GRW} \pm \gamma_3 \text{RISK} \pm \gamma_4 \text{D1} \pm \gamma_5 \text{D2} \pm \gamma_6 \text{G}$$

iii) FIN1, FIN2 
$$= \lambda_0 + \lambda_1 \text{LIQ} - \lambda_2 \text{RISK} + \lambda_3 \text{SIZE} - \lambda_4 \text{GRW} \pm \lambda_5 \text{ D1} \pm \lambda_6 \text{ D2} \pm \lambda_7 \text{G}$$

### Summary

This chapter developed the research and methodology used in this study. It discussed the source and composition of data. It explained the selection of politically-affiliated business group, the independent group matched according to industrial grouping and size, and the independent group with less than 20 percent of voting stocks owned by an individual or group of stockholders. It also explained the selection of industrial grouping and the period of study. Additionally, this chapter defined and explained the variable measurements, and presented the regression models used in the study.

#### **CHAPTER V**

#### RESULTS

## Sample Description

Table 1 presents the summary statistics on market capitalization from 1985 through 1994 inclusive. Market capitalization is given by the year-end price multiplied by the number of shares, and it is in billions of Malaysian ringgit.

The percentage of market capitalization to total capitalization for the politicallyaffiliated group increased from 6 percent in 1985 (RM. 3.5 billion) to 21 percent in 1994
(RM. 103.53 billion). The percentage for the independent group was 5.38 percent in
1985 (RM. 3.37 billion) and it dropped to its lowest point of 4.52 percent in 1989, but
then increased to 6.10 percent in 1994 (RM. 30.07 billion). The market capitalization
for politically-affiliated firms not only increased over the ten-year period but the
percentage to total market reached double digits from 1990 onwards.

Table 1
Summary Statistics of Market Capitalization
(in RM. billion)

| ear  | Total<br>Market | Politically-<br>affiliated | Percentage<br>to total<br>market | Ind. group | Percentage<br>to total<br>market |
|------|-----------------|----------------------------|----------------------------------|------------|----------------------------------|
| 1985 | 58.3            | 3.50                       | 6.00                             | 3.37       | 5.78                             |
| 1986 | 64.5            | 3.15                       | 4.88                             | 3.42       | 5.30                             |
| 1987 | 73.9            | 3.55                       | 4.80                             | 4.04       | 5.47                             |
| 1988 | 98.7            | 5.33                       | 5.40                             | 7.09       | 7.18                             |
| 1989 | 156.1           | 10.48                      | 6.71                             | 7.06       | 4.52                             |
| 1990 | 131.7           | 13.55                      | 10.29                            | 6.87       | 5.22                             |
| 1991 | 161.3           | 25.60                      | 15.87                            | 7.99       | 4.95                             |
| 1992 | 245.8           | 38.20                      | 15.54                            | 12.12      | 4.93                             |
| 1993 | 328.5           | 59.23                      | 18.55                            | 20.70      | 6.30                             |
| 1994 | 493.0           | 101.31                     | 20.55                            | 30.07      | 6.10                             |

Source: Kuala Lumpur Stock Exchange Annual Companies Handbook

Table 2A presents the summary statistics of profitability performance measures for firms in the politically-affiliated group, matching independent group, and fully independent group during the whole sample period, and also during the two separate sub-periods. There is little difference in the mean and median values of return on asset (ROA) between the politically-affiliated business group and the two independent groups. In contrast, the return on equity (ROE) is significantly higher for the fully independent group as compared to the politically-affiliated business group during the whole sample period. The summary statistic for the whole period suggests that even though the accounting definition of profit is much higher for the fully independent group than the politically-affiliated group, there is no significant difference in the economic definition of profit between the two groups. Thus, it could mean that the investors are indifferent with respect to their economic expectations of the two groups.

The first investment measure I calculated for the entire sample period and the two sub-periods suggests that there is no significant difference between the politically-affiliated business group and the two independent groups. Additionally, the results for the first financing decisions measured for the whole sample period, the first sub-period and the second sub-period suggest that the politically-affiliated business group has a significantly higher first financing measure than do the independent groups in the sample, at 1 percent significance level, but the second financing measure shows little or no significant difference between the three groups in the sample.

# Table 2A Summary Statistics

The first line reports the mean values while the second line reports the median values. Standard deviation of mean is reported in parentheses. The differences in mean is tested using Wilcoxon 2-sample Test. The t-statistic t<sub>a</sub> statistics refers to mean differences between politically-affiliated group and matching independent group. The t-statistic t<sub>b</sub> refers to mean differences between politically-affiliated firms and fully independent group. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| /ar.ª | Polaffiliated | Matching Ind.     | t <sub>a</sub> | Fully Ind.   | t <sub>b</sub> |
|-------|---------------|-------------------|----------------|--------------|----------------|
|       |               | PROFITABILITY PR  | ERFORMAN       | <u>CE</u>    |                |
|       |               | Whole Period: 1   | 985-1994       |              |                |
| ROA   | 0.022(0.051)  | 0.009(0.291)      |                | 0.026(0.162) |                |
|       | 0.034         | 0.046             | 1.526          | 0.032        | 1.675          |
| ROE   | 0.021(0.108)  | -0.117(1.814)     |                | 0.044(0.202) |                |
|       | 0.023         | 0.071             | 1.397          | 0.053        | 6.185**        |
| R*    | 0.058(0.069)  | 0.057(0.559)      |                | 0.062(0.594) |                |
|       | 0.043         | -0.121            | 1.354          | 0.047        | 0.177          |
|       |               | First Sub-period: | 1985-1989      |              |                |
| ROA   | 0.045(0.123)  | 0.054(0.079)      | 2700 1702      | 0.033(0.239) |                |
|       | 0.045         | 0.054             | 1.002          | 0.047        | 0.072          |
| ROE   | 0.054(0.236)  | 0.071(0.356)      |                | 0.069(0.112) |                |
|       | 0.125         | 0.082             | 0.601          | 0.071        | 5.046*         |
| R*    | -0.042(0.395) | -0.095(0.534)     |                | 0.155(0.068) |                |
|       | -0.069        | -0.113            | 3.475*         |              | 4.056*         |
|       |               | Second Sub-perior | d: 1990-1994   |              |                |
| ROA   | 0.045(0.123)  | 0.054(0.079)      |                | 0.033(0.239) | •              |
|       | 0.045         | 0.054             | 1.002          | 0.047        | 0.072          |
| ROE   | 0.054(0.236)  | 0.071(0.356)      |                | 0.069(0.112) |                |
|       | 0.125         | 0.082             | 0.601          | 0.071        | 5.046*         |
| R*    | -0.042(0.395) | -0.095(0.534)     |                | 0.155(0.068) |                |
|       | -0.069        | -0.113            | 3.475*         | 0.121        | 4.056*         |

### FINANCING MEASURES

Whole Period: 1985-1994

| FIN1 | 0.478(0.186) | 0.404(0.173) |         | 0.396(0.176) |         |
|------|--------------|--------------|---------|--------------|---------|
|      | 0.473        | 0.403        | 5.195** | 0.302        | 6.341** |
| FIN2 | 0.833(0.362) | 0.859(0.344) |         | 0.852(0.346) |         |
|      | 0.995        | 0.994        | 0.152   | 0.999        | 1.459   |

First Sub-Period: 1985-1989

| FIN1 | 0.474(0.167) | 0.088(0.003) |          | 0.069(0.007) |          |
|------|--------------|--------------|----------|--------------|----------|
|      | 0.449        | 0.082        | 17.593** | 0.065        | 15.903** |
| FIN2 | 0.778(0.407) | 0.868(0.334) |          | 0.823(0.372) |          |
|      | 0.998        | 0.999        | 1.420    | 0.998        | 0.086    |

Second Sub-Period: 1990-1994

| FIN1 | 0.479(0.198) | 0.414(0.162) |         | 0.411(0.178) |         |
|------|--------------|--------------|---------|--------------|---------|
|      | 0.482        | 0.411        | 5.963** | 0.409        | 4.503** |
| FIN2 | 0.866(0.328) | 0.854(0.351) |         | 0.869(0.329) |         |
|      | 0.999        | 0.999        | 0.812   | 0.999        | 1.097   |

### **INVESTMENT MEASURES**

Whole Period: 1985-1994

| INV1 | 2.135(3.931) | 2.105(2.145) |         | 2.159(3.783) |         |
|------|--------------|--------------|---------|--------------|---------|
|      | 0.021        | 0.031        | 0.936   | 0.017        | 0.902   |
| INV2 | 0.392(0.225) | 0.096(0.231) |         | 0.299(0.234) |         |
|      | 0.363        | 0.042        | 7.386** | 0.258        | 5.827** |

First Sub-Period: 1985-1989

| INV1 | 2.896(1.408) | 3.184(2.103) |       | 3.369(2.050) |       |
|------|--------------|--------------|-------|--------------|-------|
|      | 0.023        | 0.078        | 1.192 | 0.023        | 0.273 |
| INV2 | 0.356(0.264) | 0.389(0.220) |       | 0.412(0.229) |       |
|      | 0.361        | 0.389        | 1.859 | 0.390        | 1.84  |

Second Sub-Period: 1990-1994

| INV1 | 1.788(5.633)  | 1.674(2.945) |        | 1.159(1.528) |         |
|------|---------------|--------------|--------|--------------|---------|
|      | 0.019         | 0.023        | 0.113  | 0.001        | 0.096   |
| INV2 | 0.412 (0.229) | 0.265(0.207) |        | 0.381(0.222) |         |
|      | 0.390         | 0.233        | 8.262× | 0.347        | 5.717** |

Table 2B presents the summary statistics of profitability performance, financing measures and investment measures for the politically-affiliated group in the two subperiods. The result shows that even though ROA and ROE are lower in the second subperiod compared to the first sub-period for the politically-affiliated group, the market-adjusted return, the financing measure and the investment measure are significantly higher during the second sub-period.

Table 2C provides the summary statistics of the independent variables for the whole sample period and the two sub-periods. The liquidity results show that the politically-affiliated group generally has lower liquidity compared to the independent groups. In contrast, Hoshi, Kashyap and Scharfstein (1991) found that keiretsu firms are more liquid than independent firms. Yoshihara's (1988) claim that the politically-affiliated business group has easy access to bank loans cannot be empirically supported in this study. Thus, it appears from the table that firms in the politically-affiliated business group not only did not enjoy higher liquidity than other independent groups in the sample, but they are also more liquidity constrained than fully independent group. From the financing decision measure results, it may be hypothesized that the politically-affiliated business group prefers to have long term obligations rather than short term loans, which, in a way, may mitigate the agency costs of free cash flow<sup>45</sup>.

<sup>&</sup>lt;sup>45</sup>Jensen's (1986) agency cost of free cash flow assumed that managers act in their own interest to the detriment of shareholders' interests. He defined free cash flow as "cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital." Thus debt obligations may mitigate the agency cost of free cash flow since debt obligations forced managers to put aside cash and not waste it on other inefficiencies.

However, comparative analysis of the two sub-periods for the politically-affiliated business group suggests that the group enjoyed significantly higher liquidity during the second sub-period than the first sub-period. Since the profitability performance measure indicates that the politically-affiliated group obtained higher profits in the second sub-period, based on pecking order theory, the liquidity should also be higher in the second sub-period for the politically-affiliated group.

Nevertheless, a comparative analysis of the summary statistics between the politically-affiliated group and independent groups may not provide any concrete results, since we must take into consideration the effect of other independent variables on a firm's profitability performance, investment decisions and financing decisions. Thus, in order to examine these three issues, we must control for each of the independent variables. The following regression analyses will examine the differences in profitability performance, financing behavior and investment decision between the politically-affiliated group and the two independent groups. Additionally, a dummy variable used to represent the politically-affiliated group in a full sample regression analysis. The analysis will be conducted to examine the effect of political-affiliation on profitability performance, financing and investment decisions.

# Table 2B Summary Statistics for Politically-Affiliated Group in Two Sub Periods

This table presents mean and median values used in this study. The sample consists of 350 firm-year observations each for politically-affiliated business group in two sub periods, 1985-89 and 1990-1994. The first line reports the mean values while the second line reports the median values. Standard deviation of mean is reported in parentheses. The differences in mean is tested using Wilcoxon 2-sample Test. The t-statistics tests the mean differences between the two sub-periods. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Var. | First sub-period (1985-1989) |              | Second sub-period (1990-1994) |        |         |
|------|------------------------------|--------------|-------------------------------|--------|---------|
|      | mean                         | median       | mean                          | median | t-test  |
|      | PI                           | ROFITABILITY | PERFORMANCE                   |        |         |
| ROA  | 0.045(0.123)                 | 0.045        | 0.008(0.165)                  | 0.025  | 6.691** |
| ROE  | 0.054(0.236)                 | 0.125        | 0.029(0.008)                  | 0.052  | 5.278*  |
| R*   | -0.042(0.395)                | -0.069       | 0.345(0.056)                  | 0.199  | 14.123* |
|      |                              | FINANCING    | MEASURES                      |        |         |
| FIN1 | 0.474(0.167)                 | 0.449        | 0.479(0.198)                  | 0.482  | 0.351   |
| FIN2 | 0.778(0.407)                 | 0.998        | 0.866(0.328)                  | 0.999  | 2.454** |
|      |                              | INVESTMEN    | T MEASURES                    |        |         |
| INV1 | 2.896(1.408)                 | 0.023        | 1.788(5.633)                  | 0.019  | 1.914   |
| INV2 | 0.356(0.264)                 | 0.361        | 0.412 (0.229)                 | 0.390  | 3.080** |

Table 2C
Summary Statistics for Independent Variables

The first line reports the mean values while the second line reports the median values. Standard deviation of mean is reported in parentheses. The differences in mean is tested using Wilcoxon 2-sample Test. The t-statistic  $t_a$  statistics refers to mean differences between politically-affiliated group and matching independent group. The t-statistic  $t_b$  refers to mean differences between politically-affiliated firms and fully independent group. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

Fully Ind.

t<sub>h</sub>

Matching Ind.

Var.a

Pol.-affiliated

| var. | Poiamiliated  | Matching ind.                | t <sub>a</sub> | runy ma.              | ц        |
|------|---------------|------------------------------|----------------|-----------------------|----------|
|      |               | Whole Period                 | 1: 1985-1994   |                       |          |
| LIQ  | 9.259(1.622)  | 9.263(1.610)                 |                | 11.33(1.122)          |          |
|      | 9.667         | 9.417                        | 0.544          | 11.376                | 7.810**  |
|      |               |                              |                |                       |          |
| Size | 11.68(1.342)  | 11.57(1.272)                 |                | 8.547(1.2)            |          |
|      | 11.602        | 11.634                       | 0.969          | 8.722                 | 8.719**  |
| CDW  | 0.071(0.041)  | 0.000(0.050)                 |                | 0.010(0.930)          |          |
| GRW  | 0.071(0.841)  | 0.009(0.959)                 | 0.104          | -0.010(0.829)         | 0.146    |
|      | 0.058         | 0.063                        | 0.194          | 0.052                 | 0.146    |
| Q    | 0.645(0.186)  | 0.519(0.186)                 |                | 0.469(0.201)          |          |
| -    | 0.654         | 0.535                        | 2.046*         | 0.472                 | 3.124**  |
|      | 0.054         | 0.555                        | 2.040          | 0.172                 | 3.121    |
| CVI  | 0.781(0.328)  | 1.002(0.414)                 |                | 0.816 (0.462)         |          |
|      | 0.613         | 0.988                        | 4.545**        | 0.698                 | 7.315**  |
| OV.  | 0.220/0.416   | 0.445(0.400)                 |                | 0.200/0.227           |          |
| CV2  | 0.339(0.416)  | 0.447(0.482)                 |                | 0.288(0.327)          | 0.5844   |
|      | 0.376         | 0.416                        | 5.461**        | 0.204                 | 9.57**   |
| Beta | 0.986(0.451)  | 1.068(0.354)                 |                | 1.057(0.344)          |          |
|      | 1.009         | 1.062                        | 0.361          | 1.068                 | 0.470    |
| LIQ  | 8.541(1.254)  | First Sub-perio 8.794(1.452) | d: 1985-1989   | 10.92(1.144)          |          |
| LIQ  | 8.449         | 8.860                        | 1.784          | 10.857                | 3.093**  |
|      | 0.447         | 8.600                        | 1.704          | 10.037                | 3.073    |
| Size | 10.979(1.157) | 10.41(1.175)                 |                | 10.221(1.149)         |          |
|      | 10.942        | 10.33                        | 0.603          | 10.432                | 1.704    |
|      |               |                              |                |                       |          |
| GRW  | -0.007(0.891) | 0.038(1.019)                 |                | -0.111(0.954)         |          |
|      | 0.045         | 0.089                        | 3.987*         | 0.063                 | 0.035    |
| Q    | 0.556(0.151)  | 0.547(0.305)                 |                | 0.449(0.192)          |          |
| ~    | 0.536(0.131)  | 0.489                        | 0.669          | 0.431                 | 23.646** |
|      | 0.374         | U.407                        | 0.009          | 0.431                 | 23.040   |
| CV1  | 0.547(0.304)  | 0.636(0.351)                 |                | 0.673(0.305)          |          |
|      | 0.489         | 0.594                        | 4.482*         | 0.588                 | 3.569    |
|      |               |                              |                |                       |          |
| CV2  | 0.347(0.456)  | 0.413(0.331)                 |                | 0.311(0.232)          |          |
|      | 0.311         | 0.299                        | 2.163          | 0.235                 | 4.108**  |
|      | 0.511         |                              |                |                       |          |
| Rete |               | 1.017 (0.354)                |                | 1.065(0.242)          |          |
| Beta | 1.009 (0.438) | 1.017 (0.354)<br>1.057       | 0.014          | 1.065(0.342)<br>1.009 | 0.922    |

Second Sub-period: 1990-1994

| LIQ  | 9.701(1.667) | 9.576(1.621) |         | 11.57(1.039)  |         |
|------|--------------|--------------|---------|---------------|---------|
| DiQ  | 9.855        | 9.864        | 0.367   | 11.62         | 5.669** |
| Size | 12.11(1.267) | 12.18(1.244) |         | 8.763(1.187)  |         |
|      | 12.03        | 12.07        | 0.461   | 8.901         | 5.867** |
| GRW  | 0.094(0.924) | 0.015(0.044) |         | -0.071(0.822) |         |
|      | 0.065        | 0.871        | 0.677   | 0.026         | 1.443   |
| Q    | 0.539(0.204) | 0.513(0.181) |         | 0.481(0.206)  |         |
|      | 0.561        | 0.532        | 1.823   | 0.491         | 3.633** |
| CV1  | 0.542(0.403) | 0.81(0.375)  |         | 0.642(0.437)  |         |
|      | 0.346        | 0.693        | 7.913** | 0.585         | 8.619** |
| CV2  | 0.331(0.468) | 0.391(0.305) |         | 0.299(0.261)  |         |
|      | 0.376        | 0.299        | 2.280*  | 0.232         | 5.92**  |
| Beta | 0.972(0.459) | 1.014(0.354) |         | 1.052(0.346)  |         |
|      | 0.928        | 1.062        | 0.699   | 1.009         | 1.374   |

## Cross-Sectional Regression Analysis

## **Profitability Performance Measures**

Table 3 presents the cross-sectional regression analysis results on the profitability performance measure for the politically-affiliated business group, matching independent group, and fully independent group for the whole sample period from 1985 to 1994, and also for the two sub-periods. In particular, this study is interested in the differences in the determinants of profitability performance, investment behavior and financing behavior between the politically-affiliated group and the two independent groups in the sample.

The three profitability performance models produce different results. For the politically-affiliated group, only the explanatory variables for the market-adjusted return model have the expected signs. The coefficient of the size variable is negative and significant; the coefficient for the risk measure is positive and significant; and the coefficient for the liquidity variable is positive and significant. This is consistent with previous studies. Jensen and Meckling (1976) presented their argument that size should be negatively related to profitability, since the larger the firm size, the higher the agency cost, thus the lower the profitability expected. While both the risk-premium hypothesis and the pecking order theory suggest a positive relation between risk and profitability.

Ironically, when ROA is used as the dependent variable, all the explanatory appear with signs opposite of what would be expected and are significant. For the ROE model, only the liquidity variable appears with the correct positive sign and is significant. Thus, even though the three measures are indicators of profitability performance, there could be different interpretations of determinants of accounting profit and economic

profit. The results for the ROA model are that the coefficient for size is positive and significant, while the coefficients for risk and liquidity are negative and significant. The inference is that asset-utilization is more efficient by the larger firms than the smaller firms, since the larger the firm, the higher the return generated from asset. The results further suggest that firms with risky operations tend to have a smaller return on assets. The negative relation between liquidity and ROA may indicate the presence of the agency cost of free cash flow within the politically-affiliated group. According to Jensen's (1986) agency cost of free cash flow theory, managers act in their own interest to the detriment of shareholders' interests. They would utilize the free cash flow, defined as "cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital", to indulge in wasteful activities, such as taking on projects with negative net present value, with the sole purpose of increasing their pecuniary benefits. Nevertheless, since the purpose of this study is not to test the agency cost of free cash flow, the discussion on the agency cost of free cash flow will be limited to the negative relation between liquidity and return on asset.

Results for the fully independent group show that only the market-adjusted return model provides a similar result as the politically-affiliated group; the explanatory variables appear with the expected signs and they are all significant. While only two explanatory variables (i.e., size and risk) in the market-adjusted return model for the matching independent group appear with the correct signs (i.e., negative and positive respectively) and are significant.

The whole sample period analysis indicates that after controlling for growth, size, risk and liquidity, the industry dummy D1 for all three groups in the sample has a negative and significant coefficient when ROA is used as a profitability performance measure, thus indicating a significantly lower performance when firms are in the industrial grouping <sup>46</sup> 1. However, for firms in industrial grouping 3, the coefficient is negative and significant only for the matching and fully independent groups, while the coefficient for the politically-affiliated group is also negative but insignificant.

When ROE is used as the profitability performance measure, the coefficient for the dummy D2 is negative and significant for the fully independent group but positive and significant for the politically-affiliated group, indicating firms in the politically-affiliated group in the plantation and mining sectors are able to earn significantly higher returns on their equity, i.e., about 7 percent more, than other sectors in the same group. While in the fully independent group, firms in the same sector groupings obtained 13.5 percent less returns on their equity than firms in other sectors in the fully independent group.

When market-adjusted return is used as the profitability performance measure, the coefficients of the two dummy variables become negative and significant for the politically-affiliated business but not for the other independent groups. For the politically-affiliated group, firms in the industrial products, construction and properties sectors (i.e., Group 2) earn significantly higher returns than firms in the other sectors.

<sup>&</sup>lt;sup>46</sup> Group 1 consists of three industries, i.e., consumer products, trading services and hotels; Group 2 consists of three industries, i.e., industrial products, construction and properties; Group 3 consists of two industries, i.e., plantation and mining. The dummy variables are represented by D1 and D2, where D1 is 1 if group is equal to 1 and zero otherwise; and D2 is 1 if group is equal to 3 and zero otherwise.

This result can be expected since the two largest firms in the sample, i.e., Renong and United Engineers, are in the construction sectors. These firms are able to earn higher market-adjusted returns because they are on the frontier of most government privatization projects. The sub-period analyses also provide similar results. However, the result for the independent groups shows just the opposite. Independent firms in the two independent groups earn significantly higher returns only if they are in the consumer products, trading services, hotels, plantation and mining sectors.

The results on the profitability performance provide similar evidence. First, there seems to be no difference in behavior between politically-affiliated group and fully independent group under the market-adjusted return model. The hypothesis that the politically-affiliated group exhibits different profitability performance cannot be supported. The signs of the determinants of the model are as expected and they are all significant.

However, under the market-adjusted return model, the matching independent group does not seem to exhibit similar behavior to the politically-affiliated group.

Growth affects profitability in a positive and significant way, while liquidity affects profitability in a negative and significant way. Thus, the economic assertion is that, when a firm has growth prospects, the stock market reacts positively, but the higher liquidity position of a firm implies a lower market-adjusted return. Unlike the politically-affiliated group, evidence of agency cost of free cash flow in the matching independent group is reflected in the economic definition of profit rather than in the accounting definition of profit.

Table 3
Profitability Performance Regression Results for the Whole Sample Period 1985-1994

This table presents cross-sectional regression results for profitability performance measure for the period 1985-1994 based on five-year average of ROA, ROE and R\*. The regression model is defined by the three performance measures used. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. var                           | ]          | Politically-affiliated |            |            | Matching Independ | lent.      | Fu          | lly Independent |            |
|------------------------------------|------------|------------------------|------------|------------|-------------------|------------|-------------|-----------------|------------|
|                                    | ROA        | ROE                    | R**        | ROA        | ROE               | R*ª        | ROA         | ROE             | R*a        |
| ntercept                           | -0.139     | -0.427                 | -1.243     | 0.040      | -0.991            | 0.910      | -0.096      | -0.288          | 1.079      |
|                                    | (-3.254)** | (6.062)**              | (-5.531)** | (0.975)    | (-4.484)**        | (4.64)**   | (-4.996)**  | (-3.816)**      | (4.88)**   |
| SIZE                               | 0.032      | 0.013                  | -0.082     | -0.009     | 0.012             | -0.068     | -0.002      | 0.036           | -0.198     |
|                                    | (5.332)**  | (1.230)                | (-4.577)** | (-1.063)   | (0.326)           | (-2.343)*  | (-0.572)    | (1.985)*        | (-5.965)** |
| RISK                               | -0.062     | -0.070                 | 0.185      | -0.211     | -0.082            | 0.192      | -0.137      | -0.135          | 0.151      |
|                                    | (-8.503)** | (-5.799)**             | (5.495)**  | (-7.595)** | (-2.37)*          | (7.979)**  | (-16.951)** | (-2.802)**      | (4.272)**  |
| JQ                                 | -0.015     | 0.035                  | 0.009      | 0.031      | 0.106             | -0.186     | 0.0416      | 0.038           | 0.118      |
|                                    | (-2.636)** | (3.664)**              | (0.704)    | (3.765)**  | (3.343)**         | (-7.234)** | (9.829)**   | (2.230)*        | (3.989)**  |
| 01                                 | -0.029     | 0.011                  | -0.062     | -0.063     | 0.115             | 0.128      | -0.023      | -0.090          | 0.066      |
|                                    | (-4.045)** | (0.936)                | (-2.336)*  | (-4.576)** | (2.304)*          | (4.885)**  | (-6.773)**  | (-6.140)**      | (2.64)**   |
| 02                                 | -0.013     | 0.0740                 | -0.058     | -0.079     | 0.079             | 0.286      | -0.071      | -0.135          | 0.264      |
|                                    | (-1.532)   | (5.154)**              | (-1.622)   | (-4.038)** | (1.460)           | (5.75)**   | (-14.216)** | (-5.948)**      | (6.53)**   |
| Adjusted R F-statistic Sample size | 0.50       | 0.58                   | 0.48       | 0.49       | 0.46              | 0.42       | 0.61        | 0.63            | 0.69       |
|                                    | 54.97**    | 58.01**                | 55.47**    | 61.49**    | 66.08**           | 44.58**    | 73.88**     | 77.32**         | 87.79**    |
|                                    | 35         | 35                     | 35         | 35         | 35                | 35         | 35          | 35              | 35         |

see Appendix I for definition of variables

## Table 3 (continue) Profitability Performance Regression Results for the First Sub Period 1985 -1989

This table presents cross-sectional regression results for profitability performance measure for the period 1985-1989 based on five-year average of ROA, ROE and R\*. The regression model is defined by the three performance measures used. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. var                 | Politically-affiliated |            |            | M          | Matching Independent |            |            | Fully Independent |            |  |
|--------------------------|------------------------|------------|------------|------------|----------------------|------------|------------|-------------------|------------|--|
|                          | ROA                    | ROE        | R*         | ROA        | ROE                  | R*         | ROA        | ROE               | R*         |  |
| Intercept                | -0.357                 | -0.780     | -0.097     | -0.002     | -0.389               | -0.289     | -0.121     | -0.869            | -0.728     |  |
|                          | (-8.416)**             | (-7.559)** | (-0.608)   | (-0.057)   | (-4.337)**           | (-3.479)** | (-2.85)**  | (-6.352)**        | (-7.089)** |  |
| SIZE                     | 0.024                  | 0.061      | -0.104     | -0.042     | -0.110               | -0.024     | -0.009     | 0.032             | 0.0438     |  |
|                          | (3.465)**              | (3.051)**  | (-4.803)** | (-7.22)**  | (-4.717)**           | (-2.465)*  | (-1.713)   | (2.389)*          | (3.822)**  |  |
| RISK                     | 0.048                  | 0.139      | 0.100      | 0.031      | 0.078                | 0.047      | 0.008      | 0.108             | 0.068      |  |
|                          | (6.786)**              | (6.18)**   | (4.019)**  | (5.35)**   | (3.519)**            | (3.819)**  | (12.52)**  | (5.900)**         | (2.603)**  |  |
| LIQ                      | 0.005                  | -0.001     | -0.060     | 0.064      | 0.187                | -0.007     | 0.061      | 0.103             | -0.029     |  |
|                          | (1.031)                | (-0.046)   | (-3.105)** | (12.053)** | (6.29)**             | (-0.714)   | (8.058)**  | (3.951)**         | (-2.719)** |  |
| D1                       | 0.016                  | 0.154      | -0.098     | 0.003      | 0.013                | -0.041     | -0.042     | -0.162            | -0.006     |  |
|                          | (2.105)*               | (4.888)**  | (-4.056)** | (0.598)    | (0.647)              | (-1.65)    | (-4.645)** | (-7.036)**        | (-0.496)   |  |
| D2                       | 0.062                  | 0.221      | -0.063     | 0.062      | 0.197                | -0.162     | -0.047     | -0.142            | 0.039      |  |
|                          | (10.923)**             | (5.473)**  | (-2.269)*  | (8.009)**  | (6.06)**             | (-6.426)** | (-6.616)** | (-5.447)**        | (2.64)**   |  |
| Adjusted R <sup>**</sup> | 0.45                   | 0.43       | 0.38       | 0.54       | 0.56                 | 0.62       | 0.58       | 0.60              | 0.66       |  |
| F-statistic              | 41.69**                | 48.99**    | 27.77**    | 86.02**    | 94.41**              | 98.11**    | 83.45**    | 95.94**           | 118.68**   |  |
| Sample size              | 35                     | 35         | 35         | 35         | 35                   | 35         | 35         | 35                | <b>3</b> 5 |  |

## Table 3 (continue) Profitability Performance Regression Results for the Second Sub Period 1990 - 1994

This table presents cross-sectional regression results for profitability performance measure for the period 1990-1994 based on five-year average of ROA, ROE and R\*. The regression model is defined by the three performance measures used. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var                | P                 | olitically-affiliated |           | Mat        | ching Independent |            | Fully Independent |                  |            |
|-------------------------|-------------------|-----------------------|-----------|------------|-------------------|------------|-------------------|------------------|------------|
|                         | ROA               | ROE                   | R*        | ROA        | ROE               | R*         | ROA               | ROE              | R*         |
| Intercept               | -0.044            | -1.002                | -0.844    | -0.002     | -0.389            | -0.289     | -0.142            | -1.221           | 2.533      |
|                         | (-0.848)          | (-9.93)**             | (-1.616)  | (-0.057)   | (-4.337)**        | (-3.479)** | (-4.327)**        | (-3.928)**       | (7.989)**  |
| SIZE                    | -0.003            | 0.073                 | -0.091    | -0.042     | -0.11             | 0.024      | 0.015             | 0.203            | -0.105     |
|                         | (-0.40 <b>2</b> ) | (7.488)**             | (-2.121)* | (-7.229)** | (-4.717)**        | (2.465)*   | (3.317)**         | (4.632)**        | (-2.523)** |
| RISK                    | 0.0608            | 0.115                 | 0.269     | 0.031      | 0.078             | 0.047      | 0.036             | 0.014            | 0.204      |
|                         | (8.387)**         | (8.364)**             | (5.259)** | (5.349)**  | (3.519)**         | (3.819)**  | (9.056)**         | (0.71 <b>2</b> ) | (3.446)**  |
| LIQ                     | 0.004             | 0.012                 | 0.018     | 0.064      | 0.180             | -0.007     | 0.017             | -0.083           | -0.115     |
|                         | (0.775)           | (1.266)               | (0.450)   | (12.053)** | (6.29)**          | (-0.714)   | (5.984)**         | (-3.915)**       | (-1.795)   |
| D1                      | -0.042            | -0.021                | -0.010    | 0.003      | 0.014             | -0.041     | -0.004            | -0.029           | -0.01      |
|                         | (-5.164)**        | (-2.148)*             | (-0.130)  | (0.599)    | (0.647)           | (-1.651)   | (-1.218)          | (-1.952)*        | (-0.285)   |
| D2                      | -0.011            | 0.055                 | -0.188    | 0.062      | 0.197             | -0.162     | -0.038            | -0.128           | 0.495      |
|                         | (-1.068)          | (2.819)**             | (-1.666)  | (8.009)**  | (6.063)**         | (-6.426)** | (-8.661)**        | (-5.646)**       | (9.251)**  |
| Adjusted R <sup>*</sup> | 0.47              | 0.48                  | 0.43      | 0.53       | 0.50              | 0.52       | 0,52              | 0.59             | 0.49       |
| F-statistic             | 54.24**           | 54.33**               | 34.02**   | 86.02**    | 69.61**           | 76.12**    | 68.38**           | 76.96**          | 60.36**    |
| Sample size             | 35                | 35                    | 35        | 35         | 35                | 35         | 35                | 35               | 35         |

## Financing Behavior Measures

Table 4 presents the regression results for the financing behavior models for the whole sample period, the first sub-period and the second sub-period. Results for the whole sample period indicated that the politically-affiliated group exhibits different financing behavior than do the two independent groups.

When the first financing decision measure is used (i.e., FIN1), the size coefficient has the expected sign (positive) and it is significant for all groups in the sample.

This is consistent with the study done by Chang and Rhee (1990) that well-established firms have easy access to the capital markets compared to smaller and less-established firms. When the second decision measure is used, the size coefficient is again positive and significant for the two independent groups but not for the politically-affiliated group. The politically-affiliated group has a negative and significant coefficient for the size variable, which lends support to the previous study by Titman and Wessels (1988) that small firms are more leveraged and prefer to use short term loans rather than issueing long term debt.

The coefficient for growth variable is positive and significant for the politicallyaffiliated group but negative and significant for the fully independent group. The result
for the politically-affiliated group is consistent with the pecking order theory that rapid
growth implies a higher debt capacity and an ability to pay interests, and lenders may
charge a lower cost to the firm with sound future prospects. In contrast, results for
independent groups are consistent with the hypothesis of the study which is based on the

theory of agency cost presented in previous studies [Titman and Wessels (1988); Jensen and Meckling (1976); Myer (1977); and Stulz (1990)].

Result for the risk measure shows a positive and significant relation between risk and financing for the politically-affiliated group but not for the independent group. Thus the hypothesis that high operating risk firms prefers to use more leverage can only be supported for the politically-affiliated group. The inference is that, banks may be reluctant to extend loans to firms in the independent groups with high operating risk. However, the same inference may not hold true for the politically-affiliated group, since firms in that group are known to help out one another in times of financial distress or impending financial distress. The positive relation between risk and financing may suggest that the assistance could be in the form of increased financing.

The results for the liquidity measure are mixed. When the first financing measure is used, the results support the hypothesis of a negative relation between liquidity and financing for the politically-affiliated and matching independent group. However, the liquidity measure coefficient is positive and significant for politically-affiliated group and fully independent group when percentage of interest-bearing loans is used as an alternative financing measure. The inference is that when liquidity is high, interest-bearing loans, including short term loans, are more preferred than long-term loans to finance investments. This may be because short term obligations can easily be met with internal fund.

When the second financing measure is used (i.e., FIN2), the dummy variable for industrial group 3 for the whole sample period is similar for all three groups in the

sample; the coefficient for dummy variable D2 is negative and significant which indicates that firms in the plantation and mining sectors use significantly less interest-bearing loans than firms in other sectors. The results are consistent throughout the two sub periods, but not statistically significant for the politically-affiliated group in the first sub period and not statistically significant for the fully independent group in the second sub period. In contrast, when the first financing measure is used, the coefficient for D2 is positive for all three groups in the sample, but not statistically significant for the matching independent group. The inference is that firms in the plantation and mining sector prefer to use long-term debt rather than short-term loan.

Results for the whole sample period show that the dummy variable coefficients (D1) are not significant. But results for the matching independent group in the first subperiod for the first and second financing measures, are negative and significant, and positive and significant, respectively, indicating firms in the D1 industrial grouping prefer to use more interest-bearing loans but less long term liabilities than firms in other sectors. This indicates that during the first sub period, only firms in the different industrial groupings in the matching independent group has significantly different financing behavior. While the politically-affiliated group shows no significant differences in financing behavior between the industrial groups. Generally, the results for financing decisions measure support the hypothesis that the politically-affiliated group exhibits different financing behavior than the independent group.

Table 4
Financing Behavior Regression Results for the Whole Sample Period (1985 - 1994)

This table presents cross-sectional regression results for financing behavior measure for firms in the politically-affiliated business, matched independent group, and fully independent group, for the period 1985-1994 based on ten-year average of FIN1, and FIN2. The regression model is defined by the two financing behavior measures used. GRW is defined by annual compound growth rate in total assets. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var  | Politically-a         | ffiliated             | Matching Inc          | dependent             | Fully Independent     |                       |  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
|   | FIN1                  | FIN2                  | FIN1                  | FIN2                  | FIN1                  | FIN2                  |  |
| Intercept                                       | -0.136 (-3.935)**     | 1.063 (8.279)**       | 0.095 (1.565)         | -0.197 (-1.262)       | 0.037 (1.004)         | -0.648 (-3.925)**     |  |
| GRW   | 0.092 (7.759)**       | 0.044 (0.892)         | -0.086 (-3.285)**     | -0.244 (-3.757)**     | 0.007 (0.369)         | -0.329 (-4.351)**     |  |
| SIZE  | 0.030 (5.404)**       | -0.118 (-10.808)**    | 0.019 (2.504)*        | 0.11 (4.957)**        | 0.002 (0.279)         | 0.048 (2.269)*        |  |
| RISK  | 0.006 (0.877)         | 0.046 (2.878)**       | -0.026 (-3.511)**     | -0.112 (-2.547)**     | -0.041 (-8.831)**     | -0.089 (-3.715)**     |  |
| LIQ   | -0.165 (-3.518)**     | 0.131 (9.794)**       | -0.029 (-5.181)**     | -0.022 (-0.927)       | 0.001 (0.176)         | 0.063 (3.281)**       |  |
| D1  | 0.005 (1.003)         | 0.012 (0.679)         | -0.002 (-0.183)       | 0.031 (1.308)         | -0.007 (-1.363)       | 0.039 (1.776)         |  |
| D2  | 0.025 (3.465)**       | -0.168 (-5.669)**     | 0.023 (1.811)         | -0.316 (-5.544)**     | 0.026 (4.055)**       | -0.144 (-4.132)**     |  |
| Adjusted R <sup>2</sup> F-Statistic Sample size | 0.87<br>382.7**<br>35 | 0.58<br>83.23**<br>35 | 0.72<br>97.32**<br>35 | 0.55<br>47.11**<br>35 | 0.71<br>93.41**<br>35 | 0.53<br>43.02**<br>35 |  |

# Table 4 (continue) Financing Behavior Regression Results for the First Sub-Period (1985 - 1989)

This table presents cross-sectional regression results for financing behavior measure for firms in the politically-affiliated business, matched independent group, and fully independent group, for the period 1985-1989 based on five-year average of FIN1, and FIN2. The regression model is defined by the two financing behavior measures used. GRW is defined by annual compound growth rate in total assets. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var  | Politically-a         | ffiliated             | Matching Inc          | dependent             | Fully Independent      |                       |  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|--|
|   | FIN1                  | FIN2                  | FIN1                  | FIN2                  | FIN1                   | FIN2                  |  |
| Intercept   | -0.001 (-0.008)       | -0.509 (-1.204)       | 1.020 (7.740)**       | 0.214 (0.630)         | 0.039 (0.490)          | -1.077 (-4.703)**     |  |
| GRW   | 0.048 (4.437)**       | -0.221 (-3.413)**     | 0.170 (6.080)**       | 0.025 (0.475)         | 0.029 (2.476)*         | -0.236 (-4.509)**     |  |
| SIZE  | -0.041 (-3.783)**     | -0.289 (-4.205)**     | -0.071 (-4.841)**     | 0.079 (1.513)         | 0.008 (0.740)          | 0.064 (3.033)**       |  |
| RISK  | 0.033 (2.624)**       | 0.544 (6.361)**       | 0.067 (2.054)*        | -0.425 (-4.620)**     | -0.067 (-3.279)**      | 0.004 (0.079)         |  |
| LIQ   | 0.055 (5.457)**       | 0.441 (5.989)**       | -0.001 (-0.080)       | -0.022 (-0.468)       | -0.009 (-1.008)        | 0.094 (4.313)**       |  |
| D1  | -0.013 (-1.444)       | -0.053 (-1.406)       | -0.141 (-4.321)**     | 0.129 (3.264)**       | -0.048 (-4.604)**      | 0.042 (1.169)         |  |
| 1)2   | 0.014 (1.414)         | -0.033 (-1.406)       | -0.082 (-2.401)*      | -0.287 (-3.621)**     | -0.006 (-0.497)        | -0.267 (-4.068)**     |  |
| Adjusted R <sup>2</sup><br>F-Statistic<br>Sample size | 0.95<br>236.2**<br>35 | 0.61<br>18.91**<br>35 | 0.71<br>39.92**<br>35 | 0.52<br>18.07**<br>35 | 0.86<br>102.23**<br>35 | 0.76<br>54.40**<br>35 |  |

# Table 4 (continue) Financing Behavior Regression Results for the Second Sub-Period (1990 - 1994)

This table presents cross-sectional regression results for financing behavior measure for firms in the politically-affiliated business, matched independent group, and fully independent group, for the period 1990-1994 based on five-year average of FIN1, and FIN2. The regression model is defined by the two financing behavior measures used. GRW is defined by annual compound growth rate in total assets. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var  | Politically-           | affiliated            | Matching Inc          | dependent             | Fully Independent     |                       |  |
|---|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
|   | FIN1                   | FIN2                  | FIN1                  | FIN2                  | FIN1                  | FIN2                  |  |
| ntercept  | -0.068 (-1.250)        | -0.051 (-0.315)       | -0.160 (-2.006)*      | -0.567 (-1.859)       | 0.069 (1.390)         | -0.890 (-3.291)**     |  |
| GRW   | 0.043 (3.834)**        | 0.006 (0.163)         | -0.119 (-3.673)**     | -0.439 (-5.343)**     | 0.073 (2.470)*        | -0.223 (-1.819)       |  |
| SIZE  | 0.001 (0.157)          | 0.048 (2.852)**       | 0.028 (3.953)**       | 0.095 (3.747)**       | 0.009 (1.404)         | 0.076 (2.415)*        |  |
| RISK  | -0.007 (-0.608)        | 0.021 (0.485)         | -0.046 (-5.364)**     | -0.056 (-1.155)       | -0.053 (-9.708)**     | -0.106 (-2.900)**     |  |
| LIQ   | 0.011 (2.009)*         | 0.011 (0.609)         | -0.018 (-3.548)**     | 0.023 (1.023)         | -0.015 (-2.446)*      | 0.064 (2.382)*        |  |
| D1  | 0.003 (0.402)          | -0.013 (-0.578)       | -0.018 (-0.173)       | -0.048 (-1.285)       | 0.009 (1.015)         | 0.077 (2.773)**       |  |
| )2  | 0.053 (5.664)**        | -0.186 (-3.512)**     | 0.049 (2.716)**       | -0.212 (-2.368)*      | 0.031 (2.570)**       | -0.085 (-1.487)       |  |
| Adjusted R <sup>2</sup> F-Statistic Sample size | 0.93<br>247.84**<br>35 | 0.46<br>16.62**<br>35 | 0.79<br>69.58**<br>35 | 0.42<br>14.08**<br>35 | 0.90<br>151.5**<br>35 | 0.69<br>39.68**<br>35 |  |

#### **Investment Decisions Behavior**

The results in Table 5 provides one interesting result. In the whole sample regression results, the coefficient for liquidity measure is positive and significant for both investment measures for the politically-affiliated business and matching independent group, and positive and significant for fully independent group for th second investment measure. This result is consistent with Meyer and Kuh's (1957) findings that liquidity is a powerful determinant of investment. Thus, the hypothesis of this study that liquidity is not an important determinant for investment for the politically-affiliated group is not supported, since the coefficient of the liquidity variable for all three groups in the sample enters is positive and significant, for the whole sample period and, also, for most<sup>47</sup> of the first and second sub-periods. The inference is that liquidity is still a very important determinant of investment for all groups in the sample regardless of their group-affiliation.

The results of the growth measure regression are generally negative and significant for all groups in the sample for the whole sample period and the first subperiod. This again does not support the hypothesis that the politically-affiliated group has different investment behavior than the independent groups. Additionally, this result is also inconsistent with previous findings of a positive relation between growth and investment [Hoshi, Kashyap and Scharfstein, (1991)]. The coefficient for growth

<sup>&</sup>lt;sup>47</sup>When the first investment measure is used, the coefficient for liquidity is negative and significant for the politically-affiliated group in the first sub-period; and negative and significant for the politically-affiliated group and fully independent group for the second sub-period.

measure is negative and significant for both investment measures for the politicallyaffiliated group but not for the independent groups.

Table 5
Investment Behavior Regression Results for the Whole Sample Period (1985 - 1994)

This table presents cross-sectional regression results for investment behavior measure for firms in the politically-affiliated business, matched independent group, and fully independent group, for the period 1985-1994 based on ten-year average of INV1, and INV2. The regression model is defined by the two investment behavior measures used. Risk is defined by coefficient of variation of annual percentage change in net operating income. GRW is defined by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var  | Politically-aff        | iliated               | Matching Inde         | pendent               | Fully Independent     |                       |  |
|---|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
|   | INVI                   | INV2                  | INV1                  | INV2                  | INV1                  | INV2                  |  |
| Intercept   | -0.467 (-1.549)        | -0.396 (-6.218)**     | 0.388 (1.129)         | -0.303 (-2.924)**     | 0.318 (2.551)**       | -0.372 (-4.734)**     |  |
| GRW   | -0.886 (-3.912)**      | -0.797 (-7.673)**     | -0.352 (-1.500)       | -0.545 (-9.179)**     | -0.456 (-2.571)**     | -0.021 (-0.420)       |  |
| RISK  | -0.898 (-4.182)**      | 0.030 (1.803)         | -0.293 (-2.097)*      | -0.039 (-2.077)*      | 0.326 (5.705)**       | -0.178 (-7.122)**     |  |
| LIQ   | 0.225 (3.526)**        | 0.114 (10.859)**      | 0.151 (3.427)**       | 0.098 (11.241)**      | -0.496 (-2.632)**     | 0.107 (11.557)**      |  |
| D1  | 0.764 (3.902)**        | 0.063 (2.879)**       | -0.989 (-3.544)**     | 0.143 (4.512)**       | 0.155 (5.327)**       | 0.011 (0.487)         |  |
| D2  | 0.056 (0.842)          | 0.179 (5.358)*        | -0.939 (-3.662)**     | 0.245 (6.174)**       | 0.134 (0.279)         | 0.223 (8.257)**       |  |
| Adjusted R <sup>2</sup><br>F-Statistic<br>Sample size | 0.39<br>38.84 **<br>35 | 0.25<br>30.25**<br>35 | 0.28<br>27.55**<br>35 | 0.45<br>45.52**<br>35 | 0.27<br>26.33**<br>35 | 0.52<br>60.31**<br>35 |  |

# Table 5 (continue) Investment Behavior Regression Results for the First Sub Period (1985 - 1989)

This table presents cross-sectional regression results for investment behavior measure for firms in the politically-affiliated business, matched independent group, and fully independent group, for the period 1985-1989 based on five-year average of INV1, and INV2. The regression model is defined by the two investment behavior measures used. Risk is defined by coefficient of variation of annual percentage change in net operating income. GRW is defined by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var  | Politically-affi     | iliated              | Matching Inde        | ependent              | Fully Independent    |                       |  |
|---|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|--|
|   | INVI                 | INV2                 | INVI                 | INV2                  | INV1                 | INV2                  |  |
| Intercept   | 0.217 (3.900)**      | 0.369 (2.588)**      | 0.148 (0.132)        | 0.125 (0.838)         | 0.698 (1.802)        | -0.297 (-2.287)*      |  |
| GRW   | -0.535 (-2.009)*     | -0.391 (-2.278)*     | -2.031 (-1.857)      | -0.292 (-2.839)**     | 0.136 (0.407)        | -0.144 (-1.590)       |  |
| RISK  | 0.386 (3.517)**      | -0.068 (-1.475)      | -0.392 (-1.164)      | -0.066 (-1.762)       | 0.855 (3.517)**      | -0.144 (-3.069)**     |  |
| LIQ   | -0.225 (-3.651)**    | 0.025 (1.598)        | 0.359 (2.870)**      | 0.040 (2.623)**       | -0.024 (-3.827)**    | 0.099 (7.209)**       |  |
| DI  | -0.273 (-2.475)*     | 0.069 (-1.475)       | -1.185 (-1.912)      | 0.154 (3.447)**       | 0.404 (3.717)**      | 0.082 (2.676)**       |  |
| D2  | -0.192 (-1.934)      | 0.079 (1.072)        | -1.236 (-1.915)      | 0.232 (4.007)**       | 0.350 (2.802)**      | 0.251 (6.117)**       |  |
| Adjusted R <sup>2</sup><br>F-Statistic<br>Sample size | 0.26<br>8.61**<br>35 | 0.24<br>8.19**<br>35 | 0.26<br>9.32**<br>35 | 0.28<br>10.67**<br>35 | 0.17<br>5.78**<br>35 | 0.35<br>14.54**<br>35 |  |

# Table 5 (continue) Investment Behavior Regression Results for the Second Sub Period (1990 - 1994)

This table presents cross-sectional regression results for investment behavior measure for firms in the politically-affiliated business, matched independent group, and fully independent group, for the period 1990-1994 based on five-year average of INV1, and INV2. The regression model is defined by the two investment behavior measures used. Risk is defined by coefficient of variation of annual percentage change in net operating income. GRW is defined by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var  | Politically-affiliated |                       | Matching Ind         | ependent              | Fully Independent    |                       |  |
|---|------------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|--|
|   | INV1                   | INV2                  | INV1                 | INV2                  | INV1                 | INV2                  |  |
| Intercept   | -1.244 (-0.655)        | -0.244 (-1.763)       | -2.745 (-1.161)      | -0.312 (-2.023)*      | -3.993(-1.305)       | -0.194 (-1.678)       |  |
| GRW   | -1.421 (-3.303)**      | -0.429 (-2.775)**     | -0.661 (-0.720)      | -0.493 (-6.513)**     | -1.219 (-0.794)      | -0.105 (-1.107)       |  |
| RISK  | -0.251 (-3.146)**      | -0.046 (-1.795)       | -0.829 (-2.396)*     | -0.118 (-5.218)**     | -1.245 (-1.562)      | -0.186 (-4.357)**     |  |
| LIQ   | -0.103 (2.640)**       | 0.083 (4.351)**       | 1.011 (2.766) **     | 0.102 (8.688)**       | 0.724 (2.258)*       | 0.091 (7.172)**       |  |
| D1  | 0.229 (2.866)**        | -0.007 (-0.213)       | -1.392 (2.658)*      | 0.112 (2.664)**       | -0.119 (-0.153)      | -0.004 (-0.111)       |  |
| D2  | 0.155 (1.860)          | 0.089 (1.213)         | -0.285 (-2.128)*     | 0.271 (4.594)**       | 3.204 (1.613)        | 0.194 (4.318)**       |  |
| Adjusted R <sup>2</sup><br>F-Statistic<br>Sample size | 0.39<br>18.01**<br>35  | 0.27<br>10.49**<br>35 | 0.23<br>8.26**<br>35 | 0.49<br>26.61**<br>35 | 0.21<br>8.48**<br>35 | 0.36<br>16.96**<br>35 |  |

### All Samples Cross-Sectional Regression Analyses

Table 6 presents the results of the cross-sectional regression analysis for the entire sample 48 for the whole sample period and the two sub-periods. The models include a new dummy variable G, where G is equal to 1 for politically-affiliated group and 0 otherwise.

The profitability performance models indicate that only some of the explanatory variables for the market-adjusted return model appear with the expected signs and they are all significant. The coefficient for the size variable is negative and significant for the whole period and second sub-period; the coefficient for the risk variable is negative and significant for the entire sample periods, while the coefficient for the liquidity variable is positive and significant for the whole period and second sub-period. The dummy variable for industrial classification does not provide any meaningful results, except for in the second sub-period when the firms in industrial group 1 seem to obtain less market-adjusted returns, (i.e., about 12 percent less) than the firms in other industrial groups.

After controlling for the independent variables including the effect of industry classification, the coefficient for the dummy variable G indicates that during the whole sample period, firms in the politically-affiliated group managed to obtain significantly higher market-adjusted returns (about 2 percent higher) than firms in the independent group. This result is repeated in the second sub-period. Not only did the firms in the

<sup>&</sup>lt;sup>48</sup>The entire sample consists of 35 politically-affiliated firms, 35 matching independent firms and 35 fully independent firms. Since firms in the two independent groups may be overlapped, the entire sample consists of only 70 firms. In this section, the discussion is based on the entire sample which consists of politically-affiliated firms and fully independent firms, even though two sets of results are obtained, where the second sample consists politically-affiliated firms and matching independent firms.

politically-affiliated group obtain significantly higher returns, they obtained about 26 percent higher than firms in the independent group. Thus, this result not only shows that the politically-affiliated group obtained superior profitability performance compared to independent group, it also provides support to the first hypothesis of the study.

Even though the coefficient for the dummy variable G for the ROA and ROE models is not significant for the whole sample period and the two sub-periods, the explanatory variables for the ROA model during the whole period are all significant. The coefficient for the risk and liquidity variables even appear with their expected signs.

However, consistent with the result on Table 3A for the politically-affiliated group, the coefficient for the size variable is again positive throughout the entire sample periods, and also significant for the first sub-period, which provides further support to the inference that asset-utilization is more efficient in larger firms than in smaller firms.

In summary, the first hypothesis of superior profitability performance for the politically-affiliated group can only be supported in the market-adjusted return model but not in the ROA and ROE models. This indicates that there is some significant difference in the economic definition of profit between politically-affiliated group and independent group. Apparently, the investors' expectation of politically-affiliated business group seems to be higher than their expectation of independent group, despite the fact that there is no difference in accounting definition of profits between the two groups.

Table 6
Profitability Performance Whole Sample Regression Results

This table presents cross-sectional regression results for profitability performance measure for the whole sample for the whole sample period, 1985-1994, the first sub-period, 1985-1989, and the second sub-period, 1990-1994, based on average values of ROA, ROE and R\*. The regression model is defined by the three performance measures used. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var            | Whole Period (1985-1994) |             |            | First S    | First Sub-period (1985-1989) |            |            | Second Sub-period (1990-1994) |            |  |
|---------------------|--------------------------|-------------|------------|------------|------------------------------|------------|------------|-------------------------------|------------|--|
|                     | ROA                      | ROE         | R*         | ROA        | ROE                          | R*         | ROA        | ROE                           | R*         |  |
| Intercept           | -0.174                   | -0.311      | 0.503      | -0.222     | -0.363                       | -0.635     | -0.182     | -0.911                        | 2.597      |  |
|                     | (-5.103)**               | (-2.608) ** | (2.661)**  | (-5.196)*  | (-2.355)**                   | (-4.249)** | (-3.23)**  | (-3.807)**                    | (6.047)**  |  |
| SIZE                | 0.010                    | 0.001       | -0.091     | 0.027      | 0.027                        | -0.004     | 0.010      | 0.106                         | -0.173     |  |
|                     | (2.469)**                | (0.002)     | (-3.761)** | (4.493)**  | (1.213)                      | (-0.167)   | (1.583)    | (3.890)**                     | (-3.467)** |  |
| RISK                | 0.045                    | 0.065       | -0.165     | -0.037     | -0.141                       | -0.039     | -0.055     | -0.129                        | -0.623     |  |
|                     | (10.875)**               | (4.419)**   | (-7.050)** | (-4.148)** | (-4.350)**                   | (-4.429)** | (-6.047)** | (-3.429)**                    | (-8.008)** |  |
| LIQ                 | 0.023                    | 0.059       | 0.065      | 0.009      | 0.040                        | 0.032      | 0.013      | -0.018                        | 0.024      |  |
|                     | (5.705)**                | (4.219)**   | (2.921)**  | (1.503)    | (1.702)                      | (1.408)    | (2.300)    | (-0.736)                      | (0.527)*   |  |
| D1                  | -0.026                   | -0.038      | -0.005     | -0.009     | 0.045                        | -0.017     | -0.018     | -0.028                        | -0.121     |  |
|                     | (-5.414)**               | (-2.279)*   | (-0.188)   | (-1.151)   | (1.631)                      | (-0.672)   | (-2.259)*  | (-0.787)                      | (-1.945)*  |  |
| D2                  | -0.017                   | -0.007      | 0.055      | -0.012     | 0.003                        | -0.011     | 0.022      | 0.015                         | -0.116     |  |
|                     | (-2.726)**               | (-0.324)    | (1.522)    | (-1.226)   | (0.761)                      | (-0.312)   | (2.012)*   | (0.303)                       | (-1.290)   |  |
| G                   | 0.002                    | 0.002       | 0.021      | 0.004      | -0.010                       | -0.006     | -0.006     | 0.005                         | 0.265      |  |
|                     | (0.5 <b>87</b> )         | (0.152)     | (2.715)**  | (0.633)    | (-0.449)                     | (-0.295)   | (-0.744)   | (0.157)                       | (4.292)**  |  |
| Adj. R <sup>2</sup> | 0.55                     | 0.41        | 0.34       | 0.47       | 0.44                         | 0.42       | 0.49       | 0.45                          | 0.49       |  |
| F-stat.             | 83.87**                  | 57.76**     | 40.34**    | 22.34**    | 17.69**                      | 15.20**    | 20.14**    | 15.73**                       | 17.743**   |  |
| Sample size         | 70                       | 70          | 70         | 70         | 70                           | 70         | 70         | 70                            | 70         |  |

The financing behavior whole sample regression results in Table 7 indicate that only the growth and size variables appear with their expected positive signs. This result suggests that size is an important determinant of the financing decision. It also supports previous empirical evidence that shows the larger the size of the firm, the easier it is to get access to the capital market. However, while the size coefficient is significant throughout the whole sample period and the two sub-periods for the two financing measure regressions, the growth coefficient is only significant for the second financing measure regression in the whole period and first sub-period, and for the first financing measure regression in the second sub-period. Since the second financing measure also represents the interest-bearing portion of liabilities, it lends support to the pecking order theory that rapid growth implies higher debt capacity and an ability to pay interest. The growth measure is only positive and significant for the first financing regression model in second sub-period. Ironically, this result is not consistent with Table 4 for which a separate regression analysis was conducted for each group in the sample. None of the groups exhibits a similar behavior for the growth measure (i.e., positive and significant) under the second financing decision measure.

The coefficient for the risk variable is negative and significant (except for the first sub-period) throughout the whole sample period and the two sub-periods. Thus the high sales volatility may imply a higher probability of financial distress occurring. This result is consistent with Bradley, Jarrell and Kim (1984) and Jensen, Solberg and Zorn (1992) who found a negative relation between risk and leverage. However, the liquidity variable

coefficient appears positive and significant throughout the entire sample periods, inconsistent with the pecking order theory.

Regression results for the industry dummy group 3 indicate that firms in the plantation and mining industries consistently prefer to use less interest-bearing loans than firms in other industries. Due to the nature of these industries, (i.e., long-term investments in plantation and mining) it is perhaps more likely that firms in these industries prefer to issue long-term debt rather than relying on a more expensive financing method.

Results for the group dummy variable under the financing behavior models provide a more interesting interpretation. The coefficient for the dummy variable G is positive and significant for the first financing measure, i.e., FIN1, for the entire sample periods. The first financing measure represents the percentage of long-term liabilities to the total of long-term liabilities plus market value of equity. This indicates that after controlling for the explanatory variables, the politically-affiliated group has a significantly higher FIN1 measure (about 1 percent higher for the whole sample period) than the independent groups<sup>49</sup>. In contrast, when the second financing measure is used, the coefficient becomes negative and significant throughout the entire sample periods. The second financing measure represents the percentage of interest-bearing loans to the total of interest-bearing loans plus the market value of equity. This result thus suggests that the independent group prefers to use more interest bearing loans than politically-affiliated group.

<sup>&</sup>lt;sup>49</sup> This result is consistent with Kester (1986). Based on a previous finding by Myer and Majluf (1984), he suggested that information effects favor relatively higher financing for the group-affiliated firms in Japan.

Nevertheless, the analysis once again does not provide any empirical support to Yoshihara's (1988) claim that the politically-affiliated group gets easy access to "soft-loans" provide by government-owned banks and commercial banks. What is evident from the analysis is, firms in the politically-affiliated group prefer to use more long-term liabilities than firms in the independent groups. The inference is that the politically-affiliated group is involved in long-term government projects, thus it is only appropriate that long-term projects be financed with long-term liabilities.

To summarize the financing results, the results for the first financing measure model support the hypothesis that the politically-affiliated group has higher financing levels than independent group, while the second financing measure model does not provide support to this hypothesis. It may be true that the politically-affiliated group has higher financing level, but the higher financing level employed by the group is not due to its easy access to loans, as claimed by Yoshihara (1988), but rather because of its involvement in government projects, which generates the need for higher long-term financing.

Table 7
Financing Behavior Whole Sample Regression Results

This table presents cross-sectional regression results for financing behavior measure for the whole sample for the whole sample period, 1985-1994, the first sub-period, 1985-1989, and the second sub-period, 1990-1994, based on average values of FIN1 and FIN2. The regression model is defined by the two financing measures used. Risk is defined by the coefficient of variation of annual changes in net sales. GRW is defined by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var                                      | Whole Period (1985-1994) |                        | First Sub-period (1985-1989) |                       | Second Sub-period (1990-1994) |                       |
|---|--------------------------|------------------------|------------------------------|-----------------------|-------------------------------|-----------------------|
|   | FIN1                     | FIN2                   | FIN1                         | FIN2                  | FIN1                          | FIN2                  |
| Intercept                                     | -0.062 (-2.721)**        | -0.003 (-0.027)        | -0.043 (-0.941)              | -0.441 (-2.126)*      | -0.038 (-1.253)               | -0.345 (-1.960)*      |
| GRW   | 0.019 (1.278)            | 0.202 (3.909)**        | 0.027 (1.671)                | 0.151 (2.484)*        | 0.032 (2.438)*                | 0.040 (0.815)         |
| SIZE  | 0.747 (5.892)**          | 0.431 (7.264)**        | 0.802 (3.089)**              | 0.064 (2.140)*        | 0.811 (4.791)**               | 0.055 (2.716)**       |
| RISK  | -0.013 (-2.880)**        | -0.053 (-3.682)**      | -0.027 (-0.227)              | -0.199 (-4.570)**     | -0.022 (-3.257)**             | -0.069 (-2.776)**     |
| LIQ   | 0.015 (5.818)**          | 0.081(5.833)*          | 0.015 (2.936)**              | 0.171(5.383)**        | 0.008 (2.224)*                | 0.031 (1.698)         |
| D1  | -0.006 (-1.194)          | 0.055 (3.285)**        | -0.031 (-2.993)**            | -0.017 (-0.481)       | 0.004 (0.518)                 | 0.036 (1.369)         |
| D2  | 0.034 (4.884)**          | -0.152 (-6.708)**      | 0.003 (0.206)                | -0.240 (-5.102)**     | 0.039 (4.237)**               | -0.152 (-4.284)**     |
| G   | 0.014 (3.006)**          | -0.048 (-3.221)*       | 0.019 (3.201)**              | -0.098 (-3.126)**     | 0.122 (3.221)**               | -0.085 (-3.323)**     |
| Adj. R <sup>2</sup><br>F-stat.<br>Sample size | 0.86<br>454.61 **<br>70  | 0.63<br>111.86**<br>70 | 0.87<br>184.86**<br>70       | 0.59<br>35.03**<br>70 | 0.90<br>321.61**<br>70        | 0.56<br>40.11**<br>70 |

Table 8 provides the results of the investment behavior whole sample regression for the whole period and two sub-periods. The negative and significant coefficient of the growth measure the first investment model is consistent with the results in Table 5, where growth is consistently negative for each of the groups in the sample. This also indicates that the hypothesis of positive relation between growth and investment cannot be supported. On the contrary, the second investment model supports the positive relationship in previous finding, where growth is positive and significant throughout the entire sample periods.

The liquidity variable coefficient is negative and significant for the first investment model, but positive and significant for the second investment model throughout the entire sample (except in the second sub-period for the first investment model). The second investment model which represents the stock measure of investment is not only consistent with Table 5, but it provides further support to Meyer and Kuh's (1957) finding that liquidity is a powerful determinant of investment. Nevertheless, the negative relationship between liquidity and the first investment measure indicates that the higher the liquidity, the lower the flow measure of investment.

However, the risk variable coefficient is negative and significant for both investment models throughout the entire sample periods. The reason could be that banks may be reluctant to finance investments of firms with higher risk. This is consistent with the result in Table 6. Table 6 shows that the risk variable coefficient has a negative and significant sign for both financing models for the entire sample periods, which indicates that financing is lower when risk is high.

Results for the dummy variable G demonstrate that politically-affiliated group has a significantly higher flow measure of investment during the two sub-periods than does the independent group, but a significantly lower stock measure of investments than independent group throughout the entire sample periods. The investment results partly support the hypothesis that the politically-affiliated group has a higher investment level than the independent group.

Table 8

Investment Behavior Whole Sample Regression Results

This table presents cross-sectional regression results for investment behavior for the whole sample for the whole sample period, 1985-1994, the first sub-period, 1985-1989, and the second sub-period, 1990-1994, based on average values of INV1, INV2. The regression model is defined by the two investment measures used. Risk is defined by the coefficient of variation of annual changes in net operating income. GRW is defined by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind.<br>Var                                   | Whole Period (1985-1994) |                       | First Sub-period (1985-1989) |                       | Second Sub-period (1990-1994) |                       |
|---|--------------------------|-----------------------|------------------------------|-----------------------|-------------------------------|-----------------------|
|   | INV1                     | INV2                  | INV1                         | INV2                  | INV1                          | INV2                  |
| ntercept                                      | 0.071 (1.407)            | -0.337 (-5.401)**     | 0.928 (3.815)**              | 0.109 (0.874)         | 0.431 (3.226)**               | -0.124 (-1.324)       |
| GRW   | -0.187 (-4.979)**        | 0.444 (9.058)**       | -0.159 (-1.026)              | 0.034 (0.709)         | -0.526 (-8.609 )**            | 0.205 (4.803)**       |
| LIQ   | -0.248 (3.451)**         | 0.109 (13.25)**       | -0.124 (-4.492)**            | 0.053 (3.738)**       | -0.469 (-0.298)               | 0.086 (7.872)**       |
| RISK  | -0.414 (-3.03)**         | -0.059 (-3.348)**     | -0.154 (-4.409)**            | -0.089 (-2.681)**     | -0.126 (-3.486)**             | -0.126 (-5.031)**     |
| D1  | 0.266 (2.094)*           | 0.038 (2.279)*        | 0.122 (2.021)*               | 0.074 (2.384)*        | 0.659 (1.874)                 | 0.001 (0.004)         |
| D2  | -0.122 (-0.746)          | 0.157 (7.350)**       | -0.105 (-1.378)              | 0.155 (3.977)**       | -0.682 (-2.338)*              | 0.121(3.751)**        |
| 3   | 0.181 (1.829)            | -0.102 (-7.887)**     | 0.161 (3.445)**              | -0.041 (-2.695)**     | 0.116 (3.377)**               | -0.166 (-8.350)**     |
| Adj. R <sup>2</sup><br>F-Stat.<br>Sample size | 0.37<br>27.28**<br>70    | 0.42<br>45.54**<br>70 | 0.36<br>38.73**<br>70        | 0.38<br>42.72**<br>70 | 0.48<br>39.39**<br>70         | 0.36<br>25.45**<br>70 |

#### All Samples Pooled Cross-Sectional Regression Analysis

Tables 9, 10 and 11 present the pooled cross-sectional regression analysis results for the whole samples. Ironically, unlike earlier findings, results for profitability performance measures in Table 9 show that all the coefficients for the variables appear with the expected signs though few are significant. The coefficient for group dummy variable is positive and significant for all the profitability measures. Thus, it confirms earlier findings that politically-affilated group achieved higher performance compared to independent group. The financing behavior measure pooled regression results are consistent with Table 8. The coefficients for the variables of both financing measures appear with the expected signs but only size coefficient is not significant. The group dummy variable is consistent with results in Table 7, since it is positive for first financing measure and negative for second financing measure. Results for the investment measures provides support to the hypothesis of positive relation between growth and investment, even though previous analysis in the study consistently found a negative relation between the two measures. The coefficient for liquidity measure is consistent with the results in Table 7. The coefficient is negative and significant for the first investment model but positive and significant for the second investment model. Similarly, the coefficient of risk is positive for the first measure but negative for the second measure, even though previous results in the study found risk to be consistently negative for both investment measures. The group dummy variable is also consistent with Table 8, where the coefficient is positive for the first investment measure and negative for the second investment measure.

TABLE 9
Profitability Performance Pooled Regression Results

This table presents cross-sectional pooled regression results for profitability performance measures for the whole sample based on two sub-period averages of ROA, ROE and R\* (i.e., 1984-1989 and 1990-1994). The regression model is defined by the three performance measures used. Risk is defined by the coefficient of variation of annual changes in net sales. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var            | ROA<br>R*          |                  | ROE               |
|---------------------|--------------------|------------------|-------------------|
| Intercept           | -0.175 (-2.145)**  | -0.311 (-2.608)* | 0.503 (2.661)**   |
| SIZE                | -0.037 (-2.469)**  | -0.001 (-0.513)  | -0.091 (-3.761)** |
| RISK                | 0.011 (10.875)**   | 0.415 (0.621)    | 0.165 (7.058)**   |
| LIQ                 | 0.002 (5.705)**    | 0.225 (0.324)    | 0.065 (2.921)**   |
| D1                  | -0.026 (-5.414)**  | 0.005 (0.108)    | -0.014 (-0.108)   |
| D2                  | -0.0178 (-2.726)** | 0.145 (1.279)    | -0.108 (-0.052)   |
| G                   | 0.025 (5.587)**    | 0.002 (3.152)**  | 0.024 (2.571)**   |
| Adj. R <sup>2</sup> | 0.78               | 0.70             | 0.64              |
| F-stat.             | 68.34 **           | 62.19**          | 54.63**           |
| Sample size         | 140                | 140              | 140               |
|                     |                    |                  |                   |

TABLE 10
Financing Behavior Pooled Regression Results

This table presents cross-sectional pooled regression results for financing behavior measures for the whole sample based on two sub-period averages of FIN1and FIN2 (i.e., 1984-1989 and 1990-1994). The regression model is defined by the two financing measures used. Risk is defined by the coefficient of variation of annual changes in net sales. GRW is defined by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var            | FIN1              | FIN2              |  |
|---------------------|-------------------|-------------------|--|
| Intercept           | 0.126 (1.483)     | -0.224 (-0.647)   |  |
| GRW                 | 0.877 (18.37)**   | 0.228 (5.108)**   |  |
| SIZE                | 0.042 (1.030)     | 0.098 (2.881)**   |  |
| RISK                | -0.056 (-3.121)** | -0.098 (-2.868)** |  |
| LIQ                 | 0.026 (4.525)**   | 0.260 (12.540)**  |  |
| D1                  | 0.036 (-3.655)**  | -0.034 (-2.641)** |  |
| D2                  | 0.007 (0.667)     | -0.123 (-3.663)** |  |
| G                   | 0.012 (2.644)**   | -0.048 (3.206)**  |  |
| Adj. R <sup>2</sup> | 0.97              | 0.95              |  |
| F-stat.             | 423.15**          | 334.52**          |  |
| Sample size         | 140               | 140               |  |

TABLE 11
Investment Behavior Pooled Regression Results

This table presents cross-sectional pooled regression results for investment behavior measures for the whole sample based on two sub-period averages of INV1and INV2 (i.e., 1984-1989 and 1990-1994). The regression model is defined by the two investment measures used. Risk is defined by the coefficient of variation of annual changes in net operating income. GRW is defined by annual compound growth rate in total assets. Risk is defined by the coefficient of variation of annual changes in net sales. GRW is defined by by annual compound growth rate in total assets. Adjustments are made to correct for heteroskedasticity following White (1980). Absolute values of t-statistics are in parentheses. Statistical significance at the 1 and 5 percent levels are denoted by \*\* and \* respectively.

| Ind. Var            | INV1              | INV2              |  |
|---------------------|-------------------|-------------------|--|
| Intercept           | 3.229 (2.478)**   | 0.199 (1.465)     |  |
| GRW                 | 0.430 (2.150)**   | 0.362(-3.233)**   |  |
| RISK                | 1.833 (4.236)**   | -0.174 (-2.754)** |  |
| LIQ                 | -0.821 (-3.218)** | 0.034(2.903)**    |  |
| D1                  | -0.097 (-0.307)   | 0.035 (2.971)**   |  |
| D2                  | -0.921 (-0.611)   | 0.019 (1.147)     |  |
| G                   | 0.182 (1.049)     | -0.102 (-3.778)** |  |
| Adj. R <sup>2</sup> | 0.57              | 0.52              |  |
| F-stat.             | 72.85**           | 65.54**           |  |
| Sample size         | 140               | 140               |  |

#### Summary

The summary statistics show that there are some significant differences in the coefficients of the dependent and independent variables between the politically-affiliated business group and the independent group. The regression analysis results for the profitability performance and investment measures do not support the hypothesis of different profitability performance and investment behavior between the politically-affiliated group and the independent group. The regression results for the market-adjusted return model appear to be similar for both the politically-affiliated group and the fully independent group, while the regression results for both the investment measures also appear similar for the politically-affiliated group and the independent group.

The all-samples regression results provide interesting evidence. First, the first hypothesis, that of superior profitability performance for the politically-affiliated group, is only supported under the market-adjusted return model and not under the ROA or ROE model. ROA and ROE are not significantly different between the politically-affiliated group and the independent group. Second, results from the first financing measure model support the hypothesis that the politically-affiliated group has higher financing level than does the independent group, but the second financing measure does not provide support to this hypothesis. Third, the investment model results partly support the hypothesis that the politically-affiliated group has higher investment measure level than the independent group.

#### **CHAPTER VI**

#### CONCLUSION AND LIMITATIONS

#### Conclusions

This dissertation has examined and compared the profitability performance, investment and financing decisions of the politically-affiliated business group of Malaysia to the independent business groups of Malaysia.

Chapter 2 described the development of the New Economic Policy and the political involvement in business in Malaysia. Attempts have also been made to compare the political-affiliated group to the keiretsu of Japan. This study has identified several characteristics possessed by the Japanese keiretsu and the Malaysian politically-affiliated group, and has also identified some characteristics which differentiate the two groups.

Chapter 3 developed the hypotheses of the preferential treatment hypothesis.

Additionally, it reviewed previous literature and findings for each of the variables used in the study. Chapter 4 described the selection of the politically-affiliated group, the two independent groups, the period of the study, and the variable measures. Chapter 5 presented the summary statistics, and analyzed the results of the ordinary least squares regression models of the study.

The sub-period analysis in chapter 5 largely supports the hypothesis of superior profitability performance of the politically-affiliated group. However, while the results of ordinary least squares financing decisions model supported the third hypothesis of different financing behavior between the politically-affiliated group and independent group in Malaysia, the regression results of the investment decisions model did not support the second hypothesis of different investment behavior.

The following major findings of this dissertation deserve emphasis:

- Based on ROE and R\* as profitability performance measures, the performance of
  politically-affiliated business group is lower compared to independent group during
  the first sub-period. This result is consistent with Nakatani (1984) and Weinstein and
  Yafeh (1995) which found group affiliated firms in Japan obtained lower profitability
  than independent firms. This result also indicates that the preferential treatment
  enforced during the NEP era did not produce quality Bumiputera entrepreneur
  group.
- The second sub-period of the profitability performance<sup>50</sup> analysis provides a different scenario altogether. The politically-affiliated group made a remarkable recovery from the first sub-period and achieved a significantly superior profitability performance compared to the independent groups. The conjecture is that government privatization plans during the second sub-period had a positive impact on the group profitability

<sup>&</sup>lt;sup>50</sup> The profitability performance measure mentioned here is the market-adjusted return, R\*. When return on asset, ROA, and return on equity, ROE, are used as the profitability performance, the results turned out to be not significantly differently. Thus the inference is that, the economic definition of profit provides a more powerful evidence for the study compared to the accounting definition of profit. Apparently, the investors' expectation of economic performance of the politically-affiliated business is higher than their expectation of independent group.

- performance. The preferential treatment hypothesis during the second sub-period can be supported.
- Politically-affiliated group favors higher financing compared to independent group.
   This result is consistent with Kester (1986) who found that because of information effect, group affiliated firms in Japan favors higher financing than independent firms.
- Even though the hypothesis that the politically-affiliated business group has higher financing level than independent group is supported empirically, the inference is that the higher financing level is not due to easy access to loans, (since the second financing measure failed to provide any evidence), but rather due to the length of time of the long-term government projects in which the politically-affiliated business group is involved in being the reason for the higher level of long-term financing.
- Contrary to previous assertion by Yoshihara (1988), politically-affiliated business group does not favor interest-bearing loans (short term loans included) any more than the independent group. The summary statistics also indicate that the politically-affiliated group does not enjoy higher liquidity than independent group. This finding is not consistent with Hoshi, Kashyap and Scharfstein (1990) who found that group-affiliated firms in Japan are less liquidity constrained than independent firms.
- This study provides empirical support to the conjecture that firms in the politically-affiliated group help out one another in times of financial distress. In the financing decision measure model, the relationship between risk and leverage is positive and significant for the politically-affiliated group, but the reverse is true for the independent groups. Thus, banks may be reluctant to extend loans to independent

firms with high operating risk, but this is not so for the politically-affiliated group.

Alternatively, it could mean that when firms in the politically-affiliated group are experiencing financial distress, commercial banks are under strong political pressure to offer financial assistance.

• Generally, the main thrust of the study is that it supports the preferential treatment hypothesis of superior profitability performance for the politically-affiliated group only in the second sub-period. Since the second sub-period marks the end of the New Economic Policy, the inference is that the benefit of the Policy is fully exploited after after the policy ends.

#### Limitations

A generalization of the results may be limited due to the nature of the politicallyaffiliated group sample, which consists of only 35 firms. Some listed companies which
are closely affiliated to the ruling party and owned by nominee companies are excluded
from the samples to avoid further complications. The size of the samples could have been
larger if more information was available on the identities of beneficiaries for the nominee
companies. Moreover, since this study requires complete financial data for a full ten-year
period, due to a lack of data, the sample size was further reduced.

The existing models are constructed based on the principle of parsimony subject to the financial and data constraints. Possibly, some important variables may have been omitted which could provide some explanation of the small adjusted R<sup>2</sup> throughout the

results. Perhaps a stronger test than White (1980) to adjust for heteroskedasticity may produce more significant results throughout.

### **APPENDICES**

### APPENDIX I Definition of Variables

| DEPENDENT VAR.            | DEFINITION  |
|---------------------------|---|
| Profitability Performance |   |
| 1. ROA                    | Return on asset   |
| 2. ROE                    | Return on equity  |
| 3. R*                     | Market adjusted rate of return = (Average annual stock          |
|                           | return - average annual market return)                          |
| Investment Measures       |   |
| 1. INV1                   | changes in net fixed investments / total fixed investments      |
| 2. INV2                   | net fixed asset/ book value of total assets                     |
| Financing Measures        |   |
| 1. FIN1                   | (total liabilities - current liabilities)/ (total liabilities - |
| 11                        | current liabilities + book value of equity)                     |
| 2. FIN2                   | (interest-bearing loans)/ (interest-bearing loans + market      |
|                           | value of equity)  |

### APPENDIX I (continue)

| INDEPENDENT VAR          | DEFINITION  |
|--------------------------|---|
| Growth                   |   |
| 1. GRW                   | annualized compound growth rate in total assets                 |
| 2. Q                     | (total liabilities + market value of equity)/(total liabilities |
|                          | + book value of equity)   |
| Size                     | log (market equity)   |
| <u>Risk</u>              |   |
| 1. CV1                   | The coefficient of variation of annual changes in net           |
|                          | operating income  |
| 2. CV2                   | The coefficient of variation of annual changes in net           |
|                          | sales   |
| 3. Beta                  | beta coefficient  |
| Liquidity (LIQ)          | income after tax + accounting depreciation - dividend           |
|                          | payments  |
| Industry Classification  |   |
| 1. D1                    | D1 =1 if industry grouping is 1 and zero otherwise              |
| 2. D2                    | D2 = 1 if industry grouping is 3 and zero otherwise             |
| Group Classification (G) | G = 1 if politically-affiliated group and zero otherwise        |

APPENDIX II SAMPLE OF PRIVATIZATION PROJECTS BETWEEN 1983 THROUGH 1991

| Privatized Projects                    | Year | Homeot/Privatezation   | Awarded to     |
|--|------|------------------------|----------------|
| Sistem Television (M)                  | 1983 | Build Operate          | Fleet Group    |
| Sports Toto                            | 1985 | Sale of Equity         | Berjaya Group  |
| Malaysian International Shipping Corp. | 1986 | Sale of Equity         | Trust Agencies |
| N-S Highway                            | 1988 | Build-Operate-Transfer | UEM            |
| Edaran Otomobil                        | 1990 | Sale of Equity         | HICOM          |
| CIMA                                   | 1990 | Sale of Equity         | UEM            |
| Perusahaan Otomobil Nasional           | 1991 | Sale of Equity         | HICOM          |

## APPENDIX III List of Politically-affiliated Firms

| 1.  | Faber Group Berhad                     |
|-----|--|
| 2.  | Berjaya Sports Toto                    |
| 3.  | Granite Industries Berhad              |
| 4.  | Malaysian Resources Corporation Berhad |
| 5.  | Renong Berhad                          |
| 6.  | Benta Plantation                       |
| 7.  | Ayer Hitam Tin Dredging                |
| 8.  | Kampung Lanjut Tin Berhad              |
| 9.  | Kramat Tin Berhad                      |
| 10. | Malaysian Mining Corporation           |
| 11. | Petaling Tin Berhad                    |
| 12. | Tronoh Tin Mines                       |
| 13. | Malakoff Berhad                        |
| 14. | RJ Reynolds                            |
| 15. | Uniphoenix Corporation                 |
| 16. | Aokam Perdana                          |
| 17. | Berjaya Industrial                     |
| 18. | Cement Industries Malaysia Berhad      |
| 19. | Cold Storage (M) Berhad                |
| 20. | Cycle and Carriage (M) Berhad          |
| 21. | Land and General                       |
| 22. | Hume Industries                        |
| 23. | Berjaya Group                          |
| 24. | Kentucky Fried Chicken Holdings        |
| 25. | Kinta Kellas Public Limited Companies  |
| 26. | New Straits Times Press (M) Berhad     |
| 27. | OYL Industries                         |
| 28. | Technological Resources Industries     |
| 29. | Berjaya Leisure                        |
| 30. | Setron (M) Berhad                      |
| 31. | Berjaya Textiles                       |
| 32. | Time Engineering Berhad                |
| 33. | Sistem Televisyen Malaysia Berhad      |
| 34. | United Engineers Malaysia              |
| 35. | Uniphone Telecommunication Berhad      |

# APPENDIX IV List of Matching Independent Firms

| 1.  | Bolton Properties                      |
|-----|--|
| 2.  | IGB Corporation                        |
| 3.  | Landmarks Berhad                       |
| 4.  | Asia Pacific Berhad                    |
| 5.  | Pelangi Berhad                         |
| 6.  | Kemayan Oil Palm                       |
| 7.  | Lingui Development                     |
| 8.  | Berjuntai Tin Holdings Berhad          |
| 9.  | Kuchai Development Berhad              |
| 10. | Rahman Hydraulic                       |
| 11. | Timah Langat                           |
| 12. | Asiatic Development                    |
| 13. | Ajinomoto (M) Berhad                   |
| 14. | Amalgamated Steel Mills (M) Berhad     |
| 15. | Carlsberg Brewery (M) Berhad           |
| 16. | Chemical Company of Malaysia           |
| 17. | Chocolate Products (M) Berhad          |
| 18. | DNP Holdings Berhad                    |
| 19. | Olympic Industries Berhad              |
| 20. | East Asiatic Companies                 |
| 21. | Federal Flour Mills (M) Berhad         |
| 22. | George Kent (M) Berhad                 |
| 23. | Grand United Holdings                  |
| 24. | Johan Holdings Berhad                  |
| 25. | Lien Hoe Group Berhad                  |
| 26. | Malaya Glass Berhad                    |
| 27. | Matsushita Electric Company (M) Berhad |
| 28. | Malaysian Mosaic Berhad                |
| 29. | Mycom Berhad                           |
| 30. | Oriental Holdings                      |
| 31. | Pan Malaysian Cement Works             |
| 32. | Shell Refining Company (M) Berhad      |
| 33. | Tan Chong Motor Holdings               |
| 34. | Leader Universal Holdings              |
| 35. | Worldwide Holdings Berhad              |

## APPENDIX V List of Fully Independent Firms

| 1.          | Bandaraya Development Berhad       |
|-------------|------------------------------------|
| 2.          | Bolton Properties Berhad           |
| 3.          | Metroplex Berhad                   |
| 4.          | Paramount Corporation Berhad       |
| 5.          | Petaling Garden Berhad             |
| 6.          | Selangor Properties Berhd          |
| 7.          | Kulim (M) Berhad                   |
| 8.          | Selangor Coconuts Berhad           |
| 9.          | TDM Berhad                         |
| 10.         | Anson Perdana Berhad               |
| 11.         | Jeram Kuantan (M) Berhad           |
| 12.         | Kuala Sidim Rubber Co. Limited     |
| 13.         | Riverview Rubber Estates Berhad    |
| 14.         | Sungei Bagan Rubber Co. (M) Berhad |
| 15.         | Chocolate Products (M) Berhad      |
| 16.         | General Corporation Berhad         |
| <b>17</b> . | Hexza Corporation Berhad           |
| 18.         | IJM Corporation Berhad             |
| 19.         | Innovest Berhad                    |
| 20.         | Jack Chia Enterprises (M) Berhad   |
| 21.         | Johan Holdings Berhad              |
| 22.         | Khong Guan Holdings (M) Berhad     |
| 23.         | Kumpulan Emas Berhad               |
| 24.         | Larut Consolidated Berhad          |
| 25.         | Lien Hoe Corporation Berhad        |
| 26.         | Malaysian Mosaics Berhad           |
| 27.         | MWE Holdings Berhad                |
| 28.         | Oriental Holdings Berhad           |
| <b>2</b> 9. | Pegi (M) Berhad                    |
| 30.         | Sanyo Industries (M) Berhad        |
| 31.         | Sitt Tatt Berhad                   |
| 32.         | South Malaysia Industries Berhad   |
| 33.         | Inchcape Timuran Berhad            |
| 34.         | VAC Berhad                         |
| 35.         | United Malayan Flour Mills Berhad. |

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