CSR DISCLOSURE AND ITS IMPACTS ON FINANCIAL PERFORMANCE AND INSTITUTIONAL OWNERSHIP: EVIDENCE FROM THE MALAYSIAN PUBLIC LISTED COMPANIES

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FACULTY OF BUSINESS AND ACCOUNTANCY
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ABSTRACT

The pressure on companies to carry out Corporate Social Responsibility (CSR) efforts has gained impetus in current times, as a way of sustaining a competitive advantage in business. Previous studies found that the awareness and involvement of Public Listed Companies (PLCs) in Malaysia in practicing CSR activities were high; however, the level of disclosure of such activities is relatively low. The aim of this thesis is to explore CSR disclosure (CSRD) and its relation to Corporate Financial Performance (CFP) and Institutional Ownership (IO) of the Malaysian PLCs. In this thesis, a longitudinal study of 200 highest market capitalizations sampled from 474 companies listed on the main-board of Bursa Malaysia during the period 1999 to 2005 is conducted. This study employs robust regression methods, namely, the Generalized Least Squares (GLS) with Fixed Effect Model (FEM). The findings reveal that CSRD in the annual reports of PLCs in Malaysia is at its emerging stages, where the involvement of the Malaysian PLCs in CSR practices is improving. The number of companies disclosing their CSR practices has increased during the seven year period with an average growth of CSRD information at approximately 10.8 percent yearly. The employee relations dimension has the highest disclosure, followed by the community involvement dimension, and finally the product and environment dimensions. It was also found that the three industries with the highest level of disclosure are the plantation, construction and consumer products industries. To observe the statistical power, longitudinal data analysis with a large-sample testing was carried out. Results which confirmed earlier estimations indicated that there are positive and significant relationships between CSRD and CFP as well as IO. Results of the hypotheses testing based on the CSR dimensions also found that all four dimensions are positive and significantly related to CFP. Two of the CSR dimensions namely employee relations and product were found to be positively related to IO, while the community involvement and environment dimensions were negatively related to IO. Lastly, both CSRD and IO support the hypothesis as being positive and significantly related to CFP for PLCs in Malaysia. These results suggest that institutional investors hold their shares for longer time periods when they believed that companies are concerned with socially responsible practices. This proves that CSR practices can be used as a strategic approach to enhance the financial performance and reputation of PLCs in Malaysia. These findings suggest that the Malaysian PLCs should disclose their CSR activities fully, because CSRD has a significant impact in improving CFP and IO in the Malaysian PLCs. The Security Commission should therefore provide a criterion to measure the social performance of companies, such as creating a social performance ranking for PLCs. This ranking could not only set as a benchmark for CSR activities by PLCs in Malaysia, but also be utilized as a general standard measurement to evaluate companies engaging in CSR activities. There are some limitations in the study where the focuses are only on companies' annual reports. Future research could consider other media such as stand-alone reporting, in-house magazines, newspapers, and web-sites. Utilizing alternative sampling techniques from a wider population could also improve results as it would assist in making generalised conclusions. Collecting primary data through interviews is also highly recommended, as it would be useful to identify precise motives and perceptions of managers towards the disclosure of CSR activities.

ABSTRAK

Tekanan pada syarikat-syarikat untuk melaksanakan Tanggung Jawab Sosial Perusahaan (CSR) telah mendapatkan dorongan di masa sekarang, sebagai cara untuk mempertahankan keunggulan kompetitif dalam perniagaan. Penelitian dahulu mendapati bahawa kesedaran dan penglibatan syarikat awam tersenarai (PLC) di Malaysia dalam menjalankan kegiatan CSR cukup tinggi, namun tahap pendedahan kegiatan tersebut relatif rendah. Tujuan kajian ini adalah untuk mengeksplorasi pendedahan CSR (CSRD) dan hubungannya dengan Prestasi Kewangan Syarikat (CFP) dan Pemilikan Institusi (IO) di Malaysia. Dalam tesis ini, dilakukan sebuah kajian longitudinal dengan sampel 200 modal pasaran tertinggi dari 474 syarikat yang tercatat di papan utama Bursa Malaysia pada tempoh 1999-2005. Penyelidikan ini menggunakan kaedah regresi robust, iaitu Kuadrat Umum Terkecil (GLS) dengan Model Kesan Tetap (MEH). Penemuan menunjukkan bahawa CSRD dalam laporan tahunan PLC di Malaysia berada pada tahap yang muncul, di mana penglibatan PLC Malaysia dalam amalan CSR sudah membaik. Jumlah syarikat mendedahkan amalan CSR mereka telah meningkat selama tempoh tujuh tahun dengan pertumbuhan maklumat CSRD purata tahunan sekitar 10,8 persen. Dimensi hubungan pekerja mempunyai pendedahan yang tertinggi, diikuti oleh dimensi penglibatan masyarakat, dan akhirnya produk dan dimensi alam sekitar. Hasil kajian ini juga mendapati bahawa tiga industri dengan tingkat tertinggi pendedahan adalah perkebunan, pembinaan dan industri produk pelanggan. Keputusan kajian ini mensahkan studi sebelumnya bahawa ada hubungan positif dan signifikan antara CSRD dan CFP serta IO. Keputusan ujian hipotesis berdasarkan dimensi CSR juga mendapati bahawa keempat dimensi adalah positif dan signifikan berhubung kait dengan CFP. Dua dimensi CSR iaitu hubungan pekerja dan produk dijumpai secara positif berkaitan dengan IO, sedangkan penglibatan masyarakat dan dimensi persekitaran berkaitan negatif dengan IO. Terakhir, baik CSRD dan IO menyokong hipotesis sebagai positif dan signifikan yang berkaitan dengan CFP untuk PLC di Malaysia. Keputusan ini menunjukkan bahawa pelabur institusi memegang saham mereka untuk jangka masa yang lebih lama ketika mereka percaya bahawa syarikat peduli dengan amalan-amalan sosial yang bertanggung jawab. Ini membuktikan bahawa amalan CSR boleh digunakan sebagai pendekatan strategik untuk meningkatkan prestasi kewangan dan reputasi PLC di Malaysia. Penemuan ini menunjukkan bahawa PLC Malaysia harus mendedahkan kegiatan CSR mereka sepenuhnya, kerana CSRD mempunyai kesan yang signifikan dalam meningkatkan CFP dan IO dalam PLC Malaysia. Kerana itu Suruhanjaya Syarikat dan Bursa Malaysia harus memberikan kriteria untuk mengukur prestasi sosial syarikat, seperti membuat kedudukan prestasi sosial untuk PLC. Kedudukan ini tidak hanya ditetapkan sebagai tolak ukur untuk kegiatan CSR oleh PLC di Malaysia, tetapi juga digunakan sebagai ukuran standard yang umum untuk menilai syarikat yang terlibat dalam kegiatan CSR. Ada beberapa keterbatasan dalam kajian ini, di mana menumpukan hanya pada laporan tahunan syarikat. kajian di masa mendatang dapat mempertimbangkan media lain seperti laporan yang berdiri sendiri, majalah syarikat, surat khabar, dan laman web. Menggunakan teknik sampling alternatif dari suatu populasi yang lebih luas juga dapat meningkatkan keputusan kerana akan membantu dalam membuat kesimpulan umum. Pengumpulan data primer melalui wawancara juga sangat dianjurkan, karena akan bermanfaat untuk mengenalpasti motif dan persepsi pengurus terhadap pendedahan kegiatan CSR.

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CHAPTER ONE
AN OVERVIEW

1.1. Introduction

Corporate Social Responsibility (hereafter, CSR) has emerged as an important subject in company's activities (Vilanova, Lozano and Arenas, 2009). It represents the relationship between the company and the community as the third-party (Snider, Hill, and Martin, 2003). CSR is a general statement indicating a company's obligation to utilise its economic resources in its business activities to provide and contribute to its internal and external stakeholders (Kok, Weile, McKenna, and Brown, 2001). This CSR statement is consistent with the viewpoint of the "stakeholder theory", since businesses are assumed to be responsible in these aspects to their stakeholders (Maignan and Ralston, 2002). Therefore, a company could participate in increasing the community's welfare, thereby allowing the community to derive benefit directly through the existence of the company (Kok et al., 2001).

Companies operating in developed markets usually disclose their CSR activities for each specific stakeholder group (Robertson and Nicholsom, 1996). This indicates the existence of the stakeholder theory being used as a framework for companies considering CSR activities (Snider et al., 2003). This is done through CSR Disclosure (hereafter CSRD)[1].

[1] CSRD in this thesis is defined as the CSR activities communicated to stakeholders via a company's annual report. This term is referred to by Mohd Ghazali (2007); Zulkifli (2006); Nik Ahmad, Sulaiman, and Siswantoro (2003); Che Zuriana, Kasumalinda, and Rapiah (2003); Robert (1992); Kin (1990). There are various terms of CSRD used by prior researchers but they have similar meaning, namely, Corporate Social Reporting (CSR); Corporate Social Responsibility Reporting (CSRR); Corporate Social Disclosure (CSD); Corporate Social Accounting (CSA); Corporate Social Performance Reporting (CSPR); and Corporate Social Accounting Disclosure (CSAD). For example, CSR in Douglas, Doris and Johnson, (2004) and Adam, Hill, and Roberts (1998) refer to Reporting, but for consistency purposes the researcher used the term CSRD.

CSRD is a way of self declaration and promotion established by companies (Fukukawa, and Moon, 2004; Patten, 2002; Williams and Pei, 1999).

Similarly, Public Listed Companies (PLCs) in Malaysia are also concerned about their involvement in CSR activities. This is presented and expressed in the annual reports of representative companies (Williams and Pei, 1999). These annual reports establish an important mode in communicating with the stakeholders and are regarded as the main source of information for the stakeholders compared to other published media in Malaysia (Sumiani, Haslinda, and Lehman, 2007; Christopher, Hutomo, and Monroe, 1997; and Wiseman, 1982). These annual reports are a way to convey and promote to their stakeholders, other than their shareholders and investors, about the company's involvement in socially responsible practices. In addition, CSRD helps with easier access to sources of capital for companies requiring funding (Brammer and Pavelin, 2004; Tsoutsoura, 2004).

There are a number of reasons for the involvement of PLCs in CSRD; firstly, due to the growing pressure from the government and investors, whereby companies are required to adopt good corporate practice in relation to various stakeholders. Secondly, the laws and regulations of the Malaysian government require all PLCs to disclose their CSR activities and, finally, the capital market authority introduction of a CSR framework for the Malaysian PLCs makes it important to report CSR (Bursa Malaysia, 2007; Khazanah National, 2006).

Previous studies normally determine a company's CSR activities through a certain index or rating such as the Kinder, Lydenberg, Domini (KLD) index, The Canadian Social

Investment Database (CSID) index, Community Reinvestment Act (CRA) rating, or Milton Moskowitz's social responsibility rating (Mahoney and Roberts, 2007; Simpson and Kohers, 2002; McWilliams and Seigel, 2000; Waddock and Graves, 1997; Alexander and Buchholz, 1978; and Vance, 1975). Several other studies utilised social and environmental disclosure as a proxy of CSR activities (Murray, Sinclair, Power, and Gray, 2006; Freedman and Jaggi, 1988). At present, an established index/rating to measure the involvement of the Malaysian PLCs in CSR practices is not available. Therefore in this thesis in the effort to enrich the literature on the CSR study, CSRD is utilised as a proxy for the CSR initiatives by the Malaysian PLCs. There are two specific issues been examined in this thesis, namely the relationship between CSRD and financial performance[2] and the relationship between CSRD and the institutional shareholding.

In the current highly competitive market, CSR can be used as part of a company's strategy to outperform its competitors. Companies are expected to be good corporate citizens to their stakeholder, particularly the institutional investors which consider companies' involvements in CSR activities in their investment decision. For instance, in 2002, an institutional investor from the US namely CALPERS, *California Public Employees' Retirement System*, has pulled out its investment in the Asean countries, including Malaysia because these investment did not match with their socially responsible investment guidelines. This scenario indicates that companies in the Asean region are less

[2] Financial performance of a company is a method used to indentify how well the company utilizes its assets to generate income through their business activities. This method is also utilized to assess of a company's general financial strength over a given time period. There are various financial ratios that can be used to measure the different attributes of the financial performance of a company. This study utilize three ratios of financial performance, namely return on assets (ROA), Stock market returns (Ri) and Tobin's *q* ratio.

concerned with CSR activities. The continuous ignorance of companies in CSR activities may possibly position them as less attractive for investment alternative, particularly for the socially responsible investors, thus leading to opportunity cost of loosing potential funding.

The Malaysian PLCs have to consider and implement CSR activities in their business operations as the awareness and public demand for good CSR initiatives are heightened. The move will also support the government aspiration to attract the foreign direct investment to invest in the capital market by promoting good CSR practices among the PLCs in Malaysia[3]. Thus, involvement in CSR practices may be used as a strategy to attract investors and improve financial performance of companies and therefore the decision on the expenditure relating to CSR activities should be evaluated and analysed as other investment decisions undertaken by companies (McWilliams and Siegel, 2001).

1.2. Background of Study

The current globalization trend and growing demand from stakeholders toward companies to adopt CSR practices encourages the involvement of companies in CSR practices (Chapple and Moon, 2005). In Malaysia, the business environment is unique, as since 1983, the shareholding of the Malaysian government has been privatized and the objective of the privatization agenda is the restructuring and guarantee of a fair distribution of company returns (Mohd Ghazali, 2007). Privatization creates competition, enhances efficiency and productivity, and supports trade and industry development through private entrepreneurship and investment (Sun and Tong, 2002).

[3] Please refer to CSR & SRI: The Way Forward for Malaysia. Retrieved April 25, 2010, from http:// www. treasury. gov. my/ index.php?

Companies that are managed by *Bumiputra*[4] are now actively involved in CSR practices (Mohd Ghazali, 2007). For instance, Telekom Malaysia[5] (TM), being one of the biggest government-related companies, has a dedicated programme towards society. Its CSR activities involve events linked to information and communication technology (ICT), education, sport, health and social services, and the environment. Tenaga Nasional Berhad[6] (TNB), a power provider company in Malaysia is also actively involved in CSR practices, especially in relation to conservation, education and philanthropy. Other private companies that are actively involved in CSR practices are Maxis, which focuses on education, young people and ICT under the Maxis Bridging Communities (MBC) programmes. At the same time, the Public Bank Group focuses on education, healthcare, professional development, charity, and environmental protection as part of its CSR activities. In general, most of these companies are concerned with community involvement and human resources development.

This shows that companies realise and respect stakeholders' wishes and they are being expressed through the annual reports. Therefore, PLCs in Malaysia are able to maximize the use of annual reports in reporting to their respective stakeholders as most stakeholders, such as investors and financial institutions, use annual reports to obtain information for their investment decisions (Santema, Hoekert, Rijt, and Oijen, 2005). However, although

[4] Bumiputra is a Malay term widely used in Malaysia, embracing ethnic Malays, Javanese, Bugis, Minang and other indigenous ethnic groups, such as the *Orang Asli* in Peninsular Malaysia, and the tribal peoples in Sabah and Sarawak. The term comes from the Sanskrit word *Bhumiputra*, which can be translated literally as "son of earth". Retrieved August 12, 2008, from http://en. wikipedia. org/wiki/Bumiputera_ (Malaysia)

[5] Annual Report of Telekom Malayia Berhad end year 2005. Retrivied August 12, 2008, from http://www.bursamalaysia.com/website/bm/listed_companies/company_announcements/annual_reports/.

[6] Annual Report of Tenaga Nasional Berhad end year 2005. Retrivied August 12, 2008, from http://www.bursamalaysia.com/website/bm/listed_companies/company_announcements/annual_reports/.

prior studies reveal that the awareness level of PLCs towards CSR is high this awareness is not followed with practices and disclosure (Bursa Malaysia, 2007; Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999). At the same time, Mohd Ghazali, (2007) reports that the percentage of companies' involvement in CSRD has increased compared to that recorded by an earlier study, which was approximately around 26 percent (Andrew, Gul, Guthrie, and Teoh, 1989).

Companies should not perceive CSR as a reason for the low performance of companies. In fact, CSR and CFP are two sides of a coin which have a mutually strengthening effect. The better the financial performance of a company the higher would be the ability to involve in CSR activities, and the more actively involve a company in CSR activities would in turn improve its financial performances in the long run. Hence, both directions of relationships are found in the extant literature. For example, some studies posit that CSR is influenced by CFP (McGuire, Sundgren, and Schneeweis, 1988; Cochran and Wood, 1984) while other studies hypothesise that CFP is influenced by CSR (Mahoney and Roberts, 2007; Brammer, Brooks and Pavelin, 2006; Murray, Sinclair, Powel, and Gray, 2006; Wu, 2006; Tsoutsoura, 2004; Simpson and Kohers, 2002; Balabanis, Philip and Lyall, 1998). There are also studies that investigate both CSR and CFP utilising the causality tests (Makni, Francoeur, and Bellavance, 2009; Nelling and Webb, 2009; Waddock and Graves, 1997). In the opinion of the researcher the involvement of companies in the CSR activities may be viewed as an investment to improve their financial performances, and not just mere unit costs.

The same situation is applicable on the relationship between CSR and institutional ownership (IO), where institutional investors normally treat companies' involvement in CSR activities as an investment in intangible assets to generate returns in the future. Similarly with the case of the relationship between CSR and CFP, the reviews of the extant literature reveal that both directions of relationships between CSR and IO are established. For example, Neubaum and Zahra (2006), Johnson and Greening (1999), and Coffey and Fryxell (1991) establish that CSR is influenced by IO. Others found that the level of CSR activities is able to attract investment by institutional investors (Mahoney and Roberts, 2007; Cox, Brammer and Millington, 2004; Simerly, 1995). Institutional investors consider that the higher involvement in CSR activities enables companies to hire and retain the best employees, enhance customer trust by producing products and or services with high quality and safety, improve companies' reputation as well as managing risks.

In the academic literature, it is found that although the number of studies on CSRD is high, an empirical examination on the relationship between CSRD and Corporate Financial Performance (CFP) in the Malaysian context is very limited. The lack of empirical studies on this issue could be one of the factors explaining why the Malaysian PLCs are less concerned or involved in promoting their CSR activities to various stakeholder groups (Bursa Malaysia, 2007; Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999). Therefore, this study is aimed towards filling the gap on the relationship between CSRD and CFP in the Malaysian PLCs.

In recent years, the growth in shares held by institutional investors has increased considerably. For example, institutional investors control close to 60 percent of

outstanding shares of common stock in the US (Hayashi, 2003). In the Malaysian capital market, there are three major categories of institutional investors, namely, pension funds, mutual funds and life insurance companies, which managed assets totalling around US$114 billion or 96.4 percent of GDP at the end of 2004 (Ghosh, 2006). Specifically, the initial analysis of the data gathered in this study reveal that a total of 51.03 percent of shares in the Top 10 highest market capitalizations of PLCs are held by institutional investors in the year 2005.

Because of the magnitude of the assets controlled by institutional investors, it is a challenge for PLCs to attract these investors. For example, the Employees Provident Fund (EPF), being the largest institutional investor in Malaysia, has invested in about 19.7 percent of the total assets (US$70 billion) of the equity market (Ghosh, 2006). This indicates that PLCs have a potential to attract investors. In order to find out whether CSR activities can be used to attract institutional investors in the Malaysian PLCs, an empirical assessment of the relationship between CSR and IO is crucial.

There has been limited work examining the relationship between the company's socially responsible practices and the reaction of institutional investors in the Malaysian context. It is a crucial to explore this issue in Malaysia. By using CSRD as measurement of CSR practices of the Malaysian PLCs, this study is an effort to fill the gap by empirically testing the relationship between CSRD and IO of the Malaysian PLCs.

1.3. Problem Statement

From the above introduction, previous studies found that the awareness level of managers towards CSR is high, but it is not present in the disclosure of these activities in annual reports (Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999). Efforts to encourage companies to be more involved in CSR activities and disclosure have been carried out by governments and capital market authorities. Efforts have also been made to recognize companies that care and are actively involved in CSR activities in their daily business operations, including the launch of the CSR Awards in 2007. These awards are regarded as the highest acknowledgment by the state for companies and organizations that have given significant and positive contributions to society. Nevertheless, the level of disclosure of CSR activities in the Malaysian PLCs is still low and needs further encouragement.

A recent study organized by Bursa Malaysia[7] found that the quantity of companies involved in CSRD has not improved significantly (Tan, 2007). Thus, there is a need to provide more information for stakeholders, thereby revealing that CSRD is an important part of sustaining companies in the long-term. The study is an attempt to help managers who are concerned with their social responsibility fulfil these responsibilities, and to help the management of companies to be aware of the empirical results of the relationship between CSRD and CFP in the Malaysian PLCs. If certain actions, namely, socially responsible practices, tend to be negatively linked with CFP, then managers may be advised to take notice of the results. If, however, there is a positive impact on CFP,

[7] Bursa Malaysia was formerly known as Kuala Lumpur Stock Exchange (KLSE).

management may be recommended to pursue such activities. Hence, it is a crucial issue to understand the relationship between CSRD and CFP of the Malaysian PLCs. Filling this gap justifies the need for this study, which is structured to observe the behaviour of CSRD on CFP of the Malaysian PLCs.

Institutional investors, including public and union pension funds and Socially Responsible Investing (SRI), are likely to increasingly demand that companies disclose their CSR activities (Mahoney and Roberts, 2007; Johnson and Greening, 1999; Graves and Waddock, 1994). Bollen (2007) argues that institutional investors may have multi dimension functions that are not only based on the standard risk-return optimization but they also introduce both personal values and social principles. This indicates the need to provide information regarding whether the share ownership of institutional investors is influenced by companies that are actively involved in CSR practices. Gelb and Strawser (2001) found that companies which are concerned about being socially responsible are more likely to provide disclosure on their CSR activities and have better relationship with their investors. Consequently, institutional investors are concerned about selecting their investment in companies that are involved in socially responsible practices. The current literature does not demonstrate any empirical examination about this issue in the Malaysian context. Therefore, this study is an attempt to determine the relationship between CSRD and IO of the Malaysian PLCs by utilizing CSRD as a proxy for companies' involvement in CSR practices.

1.4. Research Objectives

From the discussion of the general problem, the followings are the specific objectives designed for this study:

a. To establish the CSRD status of the Malaysian PLCs.
b. To examine whether there is any relationship between CSRD and the dimensions of CSRD[8] with the CFP of the Malaysian PLCs.
c. To examine whether there is any relationship between CSRD and the dimensions of CSRD with the IO of the Malaysian PLCs.
d. To examine whether there is any relationship of both CSRD and IO with the CFP of the Malaysian PLCs.

1.5. Research Question

Providing information on CSR activities will enable the public to identify and decide which companies are better compared to other companies, and whether companies are managed responsibly. Even though there is some effort to encourage companies to be involved in CSR activities and disclose them, the number of companies that disclose their CSR activities in annual reports is still low. Therefore, the study examines the involvement of the Malaysian PLCs in CSR by addressing crucial empirical research questions, as follows:

a. What is the extent of CSR practices through the development of CSRD of the Malaysian PLCs?

[8] There are four dimensions of CSRD namely employee relation dimension (MPLD), community involvement dimension (COMD), product dimension (PROD) and environment dimension (ENVD).

b. What is the relationship between CSRD and the dimensions of CSRD with the CFP of the Malaysian PLCs?
c. What is the relationship between CSRD and the dimensions of CSRD with the IO of the Malaysian PLCs?
d. What is the relationship of both CSRD and IO with the CFP of the Malaysian PLCs?

1.6. Research Process

Following the research questions, the research process includes searching the existing literature including a critical appraisal of the literature, elaboration of the research method, analysing of data, and, lastly, interpreting and reporting the research results. The sample size comprises 200 PLCs in Malaysia from the period of 1999 to 2005. The non-probability with purposive sampling method is used as only large companies actively disclosed their CSR practices (Brammer and Pavelin, 2004; Thompson and Zakaria, 2004; Guthrie and Parker, 1990).

Two types of data gathering were conducted, qualitative and quantitative data analysis. For qualitative data, an unstructured data of CSRD was gathered through content analysis. The CSRD variable is used as the proxy to measure CSR activities of the PLCs that are declared in their companies' annual reports. For quantitative data, secondary data is used as a source to measure the independent variables. To test the robustness of the regression models, a sensitivity analysis was conducted. This study utilises panel data analysis for 200 PLCs for a seven years period and E-Views Software version 6.0 was utilised for the

regression models (Greene, 2008; Gujarati, 2003; Johnston and Dinardo, 1997; Leamer, 1978).

1.7. Research Motivation and Contribution

Companies that have adopted CSR are perceived to be honest, and have a significant competitive advantage in improving financial performance, increasing image and reputation, and enhancing the capacity to attract and maintain high-quality manpower (Verschoor, 2003). A company that is seen to be highly socially responsible appears to have relatively few worker problems, and customers are more willing to accept its products. In contrast, investors may consider less socially responsible companies as riskier investments because they assume that management skills in the companies are low (McGuire et al., 1988; Alexander and Bucholtz, 1978; Spicer, 1978).

The study provides some contribution to the literature on the relationship between CSRD, CFP and IO in the Malaysian PLCs as follows:

a. Numerous studies on CSRD have been done in Malaysia (Abdul Hamid, 2004; Thompson and Zakaria, 2004; Che Zuriana et al., 2003; Nik Ahmad et al., 2003; Williams and Pei, 1999; Kin, 1990). However, most of the previous studies utilised data based on a single period. Therefore, using a longitudinal data analysis based on a yearly basis for a particular company or industry is crucial. The longitudinal data analysis enables PLCs in Malaysia and other countries to discover additional proof (Abdul Hamid, 2004). Longitudinal data analysis can outline the disclosure practices of a certain company or industry and it can facilitate the perception about

the link between strategic policies in the company or industry over time (Haniffa and Cooke, 2005). To the best of the current researcher's knowledge, studies of CSRD utilising longitudinal data published in academic journals is limited (Che Zuriana et al., 2003). Hence, this research is an attempt to contribute to CSRD studies by utilising a longitudinal study, on a yearly basis, post-economic crisis, for the Malaysian PLCs.

b. The present study provides the contribution of the association between CSRD and CFP in the Malaysian PLCs as representing an emerging market setting. As noted, for more than three decades, the dissemination of companies' information to stakeholders about their involvement in CSR activities has been effected through CSRD. This topic has been an important subject for researchers in North America and Europe, and, recently, it has become an important issue in the Asian countries (Welford, 2005). Some studies on CSRD from the Asian perspective have been done by Abdul Hamid (2004), Fukukawa and Moon (2004), Kuasirikun and Sherer (2004), Thompson and Zakaria (2004), Rashid and Ibrahim (2002), Abu-Baker and Nasser (2000), Imam (2000), and Tsang (1998). However, literature concerning whether CSRD has any relationship with CFP is limited in developing countries, especially in Malaysia[9]. This issue is important as it provides information for PLCs in Malaysia, thereby helping them determine whether their involvement in CSR activities has any advantage, particularly when the companies spend financial resources on such activities. There is evidence that companies that manage their CSR activities well enhance their CFP (McPeak and Tooley, 2008). Hence, it is

[9] A study by Subroto (2003) examines the relationship between CSR and CFP in Indonesia.

timely that this study attempts to contribute to the literature concerning the association between CSRD and CFP in the Malaysian context (Nik Ahmad et al., 2003).

c. The Malaysian PLCs are faced with the tight competition that exists in the growing globalization and liberalization of the economy. A huge challenge for businesses at present is in meeting public expectations such as being good corporate citizens (Nik Ahmad and Abdul Rahim, 2003). Thus, involvement in CSR activities is an effort to respond to the expectations of various stakeholders of PLCs. The involvement in CSR activities is considered as an attempt to attract IO to invest and keep their shareholding in given companies for long-term periods (Mahoney and Roberts, 2007). Hence, by using CSRD as a proxy for the measurement of CSR activities published in companies' annual reports, the study provides a contribution to examine whether there is any relationship between CSRD and IO for the Malaysian PLCs.

d. There is no punishment by institutional investors when companies spend their financial resources on CSR activities (Mahoney and Roberts, 2007; Graves and Waddock, 1994). According to prior studies, there is a positive and significant association between IO and company performances (Navissi and Naiker, 2006; Tsai and Gu, 2006; Clay, 2001). In the case of Malaysia, it is found that companies' annual reports disclose more CSR when shares are owned by the government agencies (Mohd Ghazali, 2007). At the same time, debt monitoring and foreign ownership have a significant impact on corporate performances (Che

Haat, Abdul Rahman and Mahenthiran, 2008). Based on empirical results, it is revealed that CSRD information has caused market reactions (Epstein and Freedman, 1994; Belkaoui, 1976). Most prior studies found that investors require CSRD as information for their investment decisions (Mahoney and Roberts, 2007; Epstein and Freedmen, 1994). Institutional investors in Malaysia are dominated by several large institutions such as EPF, Lembaga Tabung Haji[10], and Permodalan Nasional Berhad[11] and have significant influence on corporate governance. Hence, this study is an effort to contribute to the literature on the relationship of both CSRD and IO with CFP in the Malaysian PLCs.

1.8. Organization of the Thesis

This thesis is divided into three different stages: literature review, data collection and analysis process, and a discussion of the findings. These are organized into seven chapters as follows:

Chapter One: An Overview

This chapter provides an overview of the research. It describes the background of the study, detailing the research problem, objectives and research questions of the study. It also provides the justification for this study and explains the study's contribution to literature on this subject.

[10] Formerly was known as Pilgrimage Management and Fund Board.

[11] The biggest fund management agency in Malaysia.

Chapter Two: Literature Review

Chapter 2 starts with a brief discussion of the existing literature on corporate practices with respect to CSR. This section presents the discussion of CSR and CSRD practices, followed by a review of CSRD in the emerging market and, in particular, Malaysia. This thesis also elaborates some of the main CSR theories related to this study, followed by discussions of primary and secondary stakeholders as active pressure on companies to implement socially responsible practices. This chapter reviews the discussion on institutional investors and socially responsible investment, followed by the discussion of the theoretical and empirical study of the relationship between CSR and CFP as well as IO from prior studies. This chapter ends with a summary of the chapter.

Chapter Three: Framework and Hypotheses Development

This chapter begins by elaborating on the important study of the relationship between CSR and CFP as well as IO in the Malaysian PLCs. This chapter also proposes the conceptual framework of the study, which is on the impact of CSR on CFP and IO, followed by the elaboration of each dimension of the conceptual framework. This chapter ends with the development of the hypotheses.

Chapter Four: Research Design and Methodology

This chapter begins by reporting the data gathering and the sample selection process for this study. An explanation of the measurement of dependent and independent variables is provided and followed by a discussion on the regression models and variables description. The chapter also proposes testing for the violation of assumptions on the classical regression model issues. Discussion on hypotheses testing begins with the description of

the construction of two estimation models, namely, the ordinary least squares (OLS) model and generalized least squares (GLS), followed by a description of the construction of pooled OLS and GLS with the fixed effects and random effects models.

Chapter Five: Data Analysis

This chapter is divided into two main analyses, namely, analysis of CSRD and hypotheses testing. The analysis of CSRD utilizes content analysis to explore the companies' CSR activities in annual reports. This chapter also analyzes the companies' data using descriptive statistics for CSR and dimensions of CSR activities. As mentioned, CSRD represents CSR activities in the Malaysian PLCs, hence, in this section, the hypotheses testing of the relationship between CSRD and CFP as well as IO for the Malaysian PLCs is presented. Three dependent variables represent CFP, namely, return on assets (ROA), stock market return (Ri), and Tobin's *q*. CSRD and dimensions of CSRD (employee relations disclosure (MPLD), community involvement disclosure (COMD), product disclosure (PROD) and environmental disclosure (ENVD) are the independent variables, and a set of selected control variables namely firm size, financial leverage, sales, asset turn over, earnings per share, and firm's systematic risk. The estimation model is conducted by using the unbalanced panel data analysis technique to estimate the impact of CSRD on CFP and IO through OLS and GLS with fixed and random effects models.

Chapter Six: Discussion

This chapter provides the results and discussions of the findings of the study. This chapter is divided into three sections comprising the results and discussions of CSR in the

Malaysian PLCs. The discussion of the hypotheses testing results of the relationship between dimensions of CSRD on IO is presented, followed by a discussion of the hypotheses testing results of the relationship between CSRD and IO on CFP. Finally, it provides a discussion on the findings according to industry classification.

Chapter Seven: Conclusion

This chapter presents the summary of the main findings and the conclusions drawn from the research. It includes the key findings of the research and a discussion on the findings of the research. This chapter also explains some implications for the Malaysian PLCs and institutional investors. It is followed by an outline of the limitations of the research and suggestions for future research. The research process is highlighted in Figure 1.1 which summarizes the organization and the flow of discussions in the thesis.

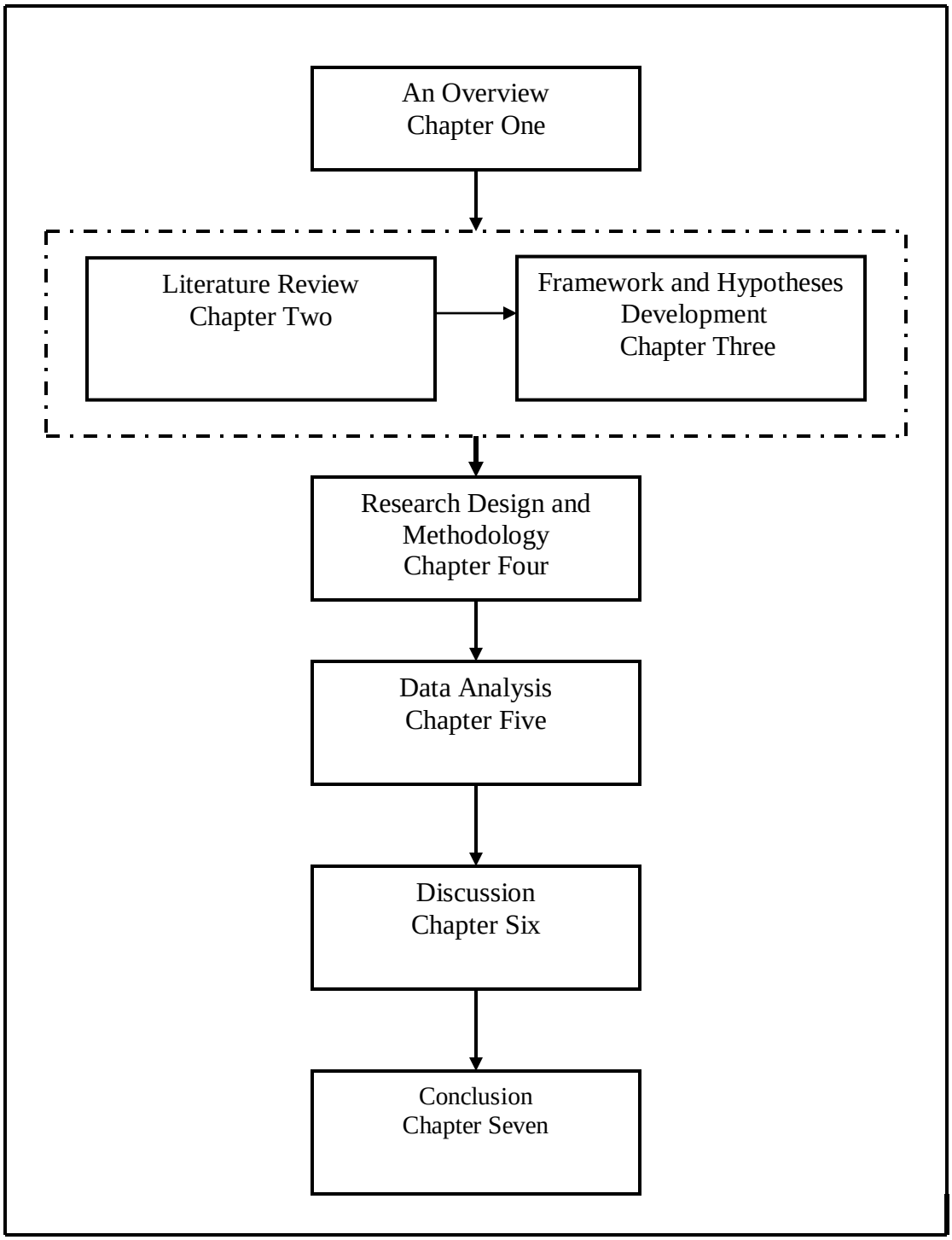

Figure 1.1
Overview of the Thesis

CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction

This chapter presents the literature review of the theoretical and empirical study of CSR. It also elaborates on the pressure exerted by primary and secondary stakeholders for companies to be concerned with responsible practices. This chapter begins with a discussion on CSR and CSRD studies, followed by an elaboration on CSR practices in the Malaysian PLCs. A discussion on the main CSR theories is presented in Section 2.3. Section 2.4 elaborates on the pressure exerted by stakeholders on companies for CSR practices. The pressure comprises primary and secondary stakeholder pressure. The position of institutional investors and socially responsible investment are discussed in Section 2.5. Section 2.6 presents the study of the relationship between CSR and CFP and is followed by the review of the relationship between CSR and IO. Overall, it should be highlighted that in this study, CSRD is used as a proxy for CSR, hence the review and discussion on the literature on CSR and its relationship with CFP and IO. Finally, the chapter ends with a brief summary.

2.2. CSR and CSRD studies

The globalization process has become the main attention for companies that operate globally and topical issues are discussed in relation to the pursuit of profit, cost of cheap manpower and the defective environment (Edwards, Marginson, Edwards, Ferner, Tregaskis, 2007). In the period of Enron and other corporate scandals, CSR has become increasingly important for companies that operate worldwide. CSR activity is a way of

changing a bad image a company, especially for companies that have a negative reputation. Yoon, Giirhan-Canli, and Schwarz (2006) state that CSR activity can be used to address the social concerns of customers about a company, as they create a brand image for the company and develop positive relations with stakeholders.

Most managers are convinced that CSR is positively related to a company's financial performance. Muirhead, Bennett, Berenbeim, Kao, and Vidal (2002) recorded that 90 percent of business managers reported that their company regarded CSR as the core of company principles, and 70 percent asserted that their company has a business foundation that aims to promote social activity. CSR has been sufficiently rationalised and institutionalised in the business environment, and this is confirmed by most of the Fortune 500 companies actively promote CSR activities in their annual reports (Boli and Hartsuiker, 2001). For example, the Matsushita[12] Group incorporates the essence of CSR as the core of its management philosophy for all its activities. Matsushita Group's CSR activities focus on global procurement, human rights, occupational health and safety, product quality, and customer satisfaction. It is implementing CSR initiatives which are linked to its business activities, and actively promoting its own corporate citizenship activities in Japan and overseas.

There are several issues that are connected with CSR activities and how the British Petroleum (BP) [13] Company handles it as a superior corporate citizen. For example, urgent

[12] Matsushita Electric Industrial Co., Ltd. (2007). Corporate Social Responsibility. Annual Report, for the year end 31March 2007.
[13] British Petroleum, BP. (2006). Corporate Social Responsibility. BP Sustainability Report.

steps are taken by BP to stabilize greenhouse gas (GHG) concentrations to achieve a decline in long-term emissions at the lowest cost and allow the company to continue its activities in a more energy efficient manner. Furthermore, BP operates extensively around the world and it needs to pay attention to human rights issues and business ethics practices. Braun (2004) reported that the Ford Motor Company (FMC) uses a different approach that involves many social and environment projects and that is outside its main business to act in socially responsible practices. The voluntary activities it promotes benefit all parties, and they include beneficiaries such as friendly societies, churches and charitable agencies.

Most of the multinational companies provide CSRD information to their stakeholders as a way of self-introduction and presenting how the organization is being run to ensure that all parties are pleased with their general behaviour (Wanderley, Lucian, Farache and Filho, 2008). Companies have to know that whether CSR activities they disclosure in the annual reports benefit them in terms of company reputation and financial performance. The involvement in CSRD is also a strategy to attract more institutional investors to invest in the companies which have a social agenda, because institutional investors possibly select their portfolio investment based on low investment risk and higher social performance (Graves and Waddock, 1994).

The CSRD concept has been utilised since the twentieth century (Gray, 2000; and Guthrie and Parker, 1989). The period from 1970s to 1990s could be regarded as the extraordinary point in the development of CSRD (Mathews, 1997). Apparently the characteristics and the area of CSRD kept changing between different countries (Gray, 2000). There is proof that companies domiciled in developed countries reported more extensively about their

CSR activities than they do in the developing countries in which they also operated (Douglas et al., 2004). Mathews (1997) shows that national and cultural differences may influence the practice of accountancy generally, and in the CSRD practices particularly.

Williams and Pei (1999) tried to find the significant factor that influenced the quantity of social and environment disclosure in annual reports for Australia, Singapore, Hong Kong, the Philippines, Thailand, Indonesia and Malaysia. They found that culture, politics and civil systems are the significant determiners in the amount of disclosure, but not for the legal systems and equity market. Williams and Pei (1999) concluded that organisations will disclose their social and environmental information voluntarily to avoid government regulation. The international comparative studies of CSRD focused on the analysis of differences and the similarity of social disclosure practices (Welford, 2005; Williams and Pei, 1999; Adams, Hill and Roberts, 1998; Guthrie and Parker, 1990).

Guthrie and Parker (1990) utilized content analysis to examine CSRD in the annual reports of a sample of 150 companies operating in the US, UK and Australia. The analysis is mostly on similarity and international differences. The conclusion of the analysis showed that 98 percent of UK Companies, 85 percent of US Companies and 56 percent of Australian companies made CSRD. In addition, CSRD was made by 117 companies spread across six themes, including human resources (40 percent), community involvement (31 percent), environment (13 percent), energy and product (7 percent) and others (2 percent). The findings of the study also reported that the director's report is the most popular location of CSRD in the UK. The average number of pages devoted to CSRD is 1.26 in the US, 0.89 in the UK and 0.70 in Australia.

Tsang (1998) proposed that the development stage of the country's economic growth may possibly be an important factor influencing CSRD. Adams et al. (1998) studied CSRD in Western Europe by using content analysis to examine 150 annual reports from six countries, namely the UK, Netherland, Sweden, Switzerland, France and Germany. The survey found that in many cases the best examples of disclosure were from German companies. In general, the German sample discloses more on the environment, and discloses more information related to their employees compared to companies from other countries. Although the UK sample discloses less information than the German sample, it is not the worst in terms of the volume of relevant disclosure. The level of disclosure on the environment or ethical matters for companies from France, the Netherland and Switzerland was much poorer.

Smith, Adhikari, and Tondkar (2005) utilized the stakeholder theory to explain the differences in CSRD among the countries. Their study is based on the content analysis of the annual reports of 32 Norwegian companies and 26 US companies, in the electric power generation industry, for 1998 and 1999. The analysis showed that based on their sample CSRD in the annual reports of companies in Norway are dominated by disclosure on the environment (47.9 percent), followed by human resources (37.2 percent), the safety of products, and shareholders' rights. The CSRD in the US was spread more equitably with human resources (33.3 percent) topping the list, followed by consumer relations (28.4 percent), community involvement (21.4 percent), and environment disclosures (16.6 percent).

Based on the discussion above, there are some differences on the degree of CSRD among companies in developed markets. Most of the public companies in the UK disclose their CSR practices, followed by American and Australian companies. Furthermore, it is revealed that Germany and Norway disclose more of their environmental and human resources dimensions, whereas the US companies disclose more on human relations and consumer relations.

2.2.1. CSR Practices in Malaysia

This section discusses about CSR practices in Malaysia. CSR activities in the Malaysian PLCs are still growing and they include seasonal activities. Dato' Johan Raslan, who is the chairman of Pricewaterhouse Coopers, noticed that CSR is more meaningful if a company continually engages in CSR activities and actively carries them out (Tam, 2007). The involvement of the Government and the Security Commission to promote CSR benefits will slowly increase the commitment to CSR in the Malaysian business scene.

In Malaysia, some companies are actively involved in CSR practices, especially in community involvement. Prathaban (2005) recorded that 65 companies registered on Bursa Malaysia contributed RM82.1 million to various charitable community programmes, including an orphanage and helping the poor, from July 2003 to December 2004. Sectorally, the Telecommunication sector contributed RM19.6 million (23.87 percent of total donation), which was the highest amount. The banking and financial services sector was second highest with RM17.1 million (20.83 percent of total donation) followed by construction and property related companies, which donated RM10.9 million (13.27

percent of total donation). The fourth highest were Government-linked companies that gave a total of RM9.6 million (11.69 percent of total donations).

Prathaban (2005) found that the three most generous companies contributed RM30.5 million, which was approximately 34.3 percent of the total contribution. Further, the 10 highest contributors donated more than 80 percent of the total contribution for social activities. These results support the research conducted by Gardiner, Rubbens and Bonfiglioni, (2003) and Seifert, Morris and Bartkus, (2003) who said that the size of business is an important variable in CSR, and acts as a barometer as to why a company engages in CSR activities. Gardiner et al. (2003) conclude that CSR will only appear noticeably different if the CSR concept is fully integrated with the principles and practices of a company and when its progress is monitored regularly. However, the percentage of CSR contributions for Malaysian companies is only 0.31 percent of their income. This is still low when compared to certain European Union countries, which contribute at least 1 percent of the profit to the community (Prathaban, 2005). The CSR contribution in the Malaysian companies can be divided into various activities including education, sporting events, religious organisations, orphanages and non-government organizations (NGOs).

Zulkifli and Amran (2006) observed that CSR activity trends in Malaysian companies are usually carried out in fields similar to their business activities. For example, Maxis[14] promotes social development involving advances in information technology, bringing about direct advantages to communities. Maxis focuses on education, adolescents and

[14] Maxis Communication Berhad (2006). Corporate Social Responsibility. Annual report, for year end 31 December 2006.

Information and Communication Technology (ICT) under the Maxis Bridging Communities (MBC) programme. The MBC core is the Cyberkid Camps, which is a smart partnership programme between Maxis and the government. The MBC programme is a means of national integration for primary school pupils throughout the country. The Telekom Malaysia (TM)[15] group is another large donor that is serious about its social responsibility. It helps to provide the digital bridge between rural communities and urban areas, and moves the nation into the digital era, thereby helping place Malaysia on the world map.

Puncak Niaga[16] is the biggest water treatment company in Malaysia and it has worked hard to introduce and promote public awareness regarding the conservation and protection of the environment. The Puncak Niaga educational programme teaches the younger generation about protecting and conserving the environment. The Public Bank[17], the fifth largest company registered on Bursa Malaysia, strongly believes that meeting its CSR will improve its reputation and branding, and that this is important for the industry services. It also reduces the investment risk and improves the long term sustainability of the Public Bank Group. In carrying out its CSR, the group focuses on healthcare, education, professional development, charity and conservation of the environment.

[15] Telekom Malaysia Berhad (2005). Corporate Social Responsibility. Annual report, for year end 31 December 2005.

[16] Puncak Niaga Holdings Berhad. (2005). Our Clear Vision. Annual report, for year end 31 December 2005.

[17] Public Bank Berhad. (2005). Corporate Social responsibility> Caring for our community, Annual Report, for year end 31 December 2005.

The trend of the Malaysian companies shows that they are increasingly becoming involved in CSR activities from different levels of CSR activities among companies (Zulkifli and Amran, 2006). Ethnicity and religion are influencing factors for CSR activities in Malaysian companies. Further, Zulkifli and Amran concluded that CSR activities in Malaysia are seasonal. For instance, many companies spread their magnanimity by distributing contributions to the old and poor communities as well as orphans during *Aidil Fitri*, *Deepavali*, and *Chinese New Year* celebrations[18].

Tay Kay Luan, who is the director of ACCA, ASEAN and Australia, states that most local companies have a narrow view of the definition of CSR (Tam, 2007). From the viewpoint of the Malaysian companies and leaders of the government, CSR is restricted to doing of good for the society through contributions, philanthropy, and the development of sports, or participation in good deeds. Therefore, CSR activities tend to focus more on programmes that have a direct impact on the company's performance.

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[18] ***Aidilfitri*** is known as the celebration that indicates the end of one month of fasting. Ramadan is the name of the fasting period for one month according to the Islamic calendar. Muslims fast from early morning till sunset totaling almost 12 hours. It is a known fact that during the period of fasting, that in addition to no eating and drinking. Muslims are also banned from smoking and having sexual relations.
Deepavali is a festival that is celebrated by Hindus throughout the world. It is also known as the festival of light. This festival usually falls in late October or November. One important exercise that Hindus follow during the festival is the lighting of kerosene lamps in their house for Deepavali.
Chinese New Year is the most essential of the traditional Chinese holidays. Chinese New Year is regarded as the main holiday for the Chinese and has had an influence on the New Year celebration geographically of its neighbors, as well as culturally with those that the Chinese have a significant interaction. Retrieved May 15, 2008, from http://en.wikipedia.org/wiki/Eid_ul-Fitr.

The recent survey by Bursa Malaysia[19] identified the status of CSR practices of the Malaysian PLCs. The CSR 2007 Status Report revealed poor CSR involvement by PLCs in Malaysia. In general, the survey showed a lack of knowledge and awareness of CSR by the Malaysian PLCs. This indicates the need to seriously improve efforts in CSR disclosure and achieve a fuller understanding of the concept of CSR. It shows that the majority of companies fell far behind the global best CSR practices and there is a need to improve the level of disclosure and CSR practices.

2.2.2. CSRD in Developing Countries

This section presents some studies of CSRD as the pioneer studies of CSRD in developing countries. So far, most CSRD studies have been carried out in the context of developed countries, such as Western Europe, the US and Australia (e.g. Alnajjar, 2000; Gray, 2000; Adams et al., 1998; Mathews, 1997; Gray, Kouhy and Lavers., 1995; Robert, 1992; Guthrie and Parker, 1990). Less information is available of CSR practices in developing countries. Tsang (1998) reported a relative lack of empirical research on CSR practices in developing countries and newly industrialized countries.

There are differences in how CSR activities are carried out in emerging countries compared to developed countries, in terms of the socio-economic and cultural contexts. Specifically, CSR in emerging countries has unique characteristics such as:

a. In emerging markets, CSR activities are less formalized in terms of CSR benchmarks, compared to developed markets.

[19] Bursa Malaysia urges more companies to embrace CSR as part of Sustainable Business Practice. Retrieved October 24, 2008, from http://www.bursamalaysia.com.

b. In emerging markets, formal CSR is utilized by big national and multinational corporations, and particularly those that have recognized global brands or have international status.
c. In emerging markets, CSR is mainly related with philanthropy or charity (e.g. social investment in education, sport sponsorships, and public health, and other community services, etc).
d. An economic contribution is usually assumed as a crucial and practical method for companies to create social effects (e.g. work opportunities, knowledge transfer, paying taxes etc).
e. The motivation and involvement in CSR practices is usually related to traditional and spiritual values in emerging markets (e.g. harmonious society (xiaokang) in China, African humanism (ubuntu) in South Africa, mutual cooperation (gotong-royong) in ASEAN countries) (Visser, 2008).

For example, Chapple and Moon (2005) reveal that generally CSR activities in emerging countries fall into three categories, namely, community involvement which is the most popular CSR activity, followed by socially responsible products and employee relations. Furthermore, their study confirms that three quarters of big companies in India have a CSR agenda, compared to only a quarter of Indonesian companies. Other countries which sit between these two extremes include Thailand, 42 percent, followed by Malaysia, 32 percent and the Philippines, 30 percent. In Latin America, Araya (2006) found that 250 companies were involved in various CSR activities. A total of 34 percent of Latin America's companies provide CSR information in their annual reports and/or separate

reports. For instance, 43 percent of companies in Mexico disclose their CSR activities in the company's annual report, followed by Mexico (33 percent) and Chile (22 percent).

Savage (1994) reported that approximately 50 percent from 115 South African companies disclose on CSR activities, with human resources (89 percent) as the main theme. The typical disclosure related to human resources includes salaries, working conditions, compensation and equal opportunities. Other social disclosure includes community involvement (72 percent) and disclosure on the environment (63 percent). The research that was made by Singh and Ahuja (1983) on India's CSRD is the first study of this nature of a developing country generally and South Asia especially.

Belal (2001) noticed that until 1997, the only study published in an international journal involving the South Asian context was Singh and Ahuja's study. Singh and Ahuja (1983) studied 40 annual reports of public companies for 1975 and 1976. They covered 33 items of social disclosures including social expenses, the measurement of environment control, and charitable and community involvement. The study examined the extent of CSRD in India. Their findings showed that approximately 40 percent of the companies disclosed more than 30 percent of the number of social disclosure items in the survey. Hegde, Bloom and Fuglister (1997) made a case study of the Steel Authority of India Limited (SAIL) Company. They observed that SAIL prepared a social balance sheet and income statement. Their finding also supports the view that human resources theme is highly disclosed. Imam (2000) conducted a survey of CSRD practices in Bangladesh. The study reported that all the companies in his survey made a form of human resources disclosure,

25 percent community, the environment 22.5 percent and the disclosure of the consumer 10 percent.

Other studies available on CSRD practices in developing countries were conducted by Kuasirikun and Sherer (2004) and Abu-Baker and Nasser (2000). Kuasirikun and Sherer (2004) utilized content analysis to explore CSRD of public registered companies in Thailand. Results show that the most common subject disclosed in the annual reports for Thai companies are employee relations, with environmental information being the second most disclosed. The director's report is not always an important location for social disclosures. Social and environmental disclosure is spread across chairpersons' report, operational review and other sections. In fact, the disclosure of community involvement for 1993 and 1999, especially, is found in either the operational review or other sections of the Thais annual reports. The social and environmental reporting practices of the Thais companies are inconsistent, and so they suggested that there is a need to establish a specific rules or framework to measure the social and environmental performance of the Thais companies.

Abu-Baker and Nasser (2000) used four dimensions of CSRD for testing the disclosure level of CSR practices in Jordan. Their results show that the majority of companies (90 percent) disclosed social responsibility information concerning the human resources and 80 percent disclosed their connections with the community involvement. Abu-Baker and Nasser (2002) report that a limited number of companies disclosed information related to products, the environment, energy, or other social matters. Most of the companies (90 percent) placed CSRD in the audited reporting. Finally, banks and financial institutions

have the highest number of pages (0.67 pages) of disclosures, following by manufacturing companies that disclosed on an average of 0.52 pages.

The above literature on CSRD shows consistent results concerning the quantity of information disclosed by companies connected with the theme of disclosing and most other CSRD studies. The most popular dimension disclosed were human resources and community involvement (Kuasirikun and Sherer, 2004; Abu-Baker and Nasser, 2000; Hegde et al., 1997; Savage, 1994). Chapple and Moon (2005) found different results, with community involvement and product dimension being more popular among emerging markets. Although most researchers reported consistent results on the theme of the disclosure, several factors such as the difference in the timing for the period, the measurement of the sample and the methodology must also be considered (Abdul Hamid, 2004).

2.2.3. CSRD Research in Malaysia

In this thesis, CSRD is defined as the CSR activities communicated to stakeholders via a company's annual reports (Mohd Ghazali, 2007; Nik Ahmad et al., 2003; Che Zuriana et al., 2002; Robert, 1992; Kin, 1990). Hence, CSRD represents all of CSR activities which companies disclose in their annual reports.

Prior studies noted that CSRD is in its nascent stage in Malaysia and several Malaysian companies have been recognized as being pro-active in this field. This includes companies that are likely to be willing to adopt the framework of the Global Reporting Initiative (GRI) (e.g. Shell Refining (M) Corporation Berhad). Generally, Malaysian managers are

agreeing if their companies are involved in CSR activities (Rashid and Ibrahim, 2002). Therefore, the involvement and disclosure of CSR activities may help companies access funds from various institutional investors and Socially Responsible Investing (SRI) fund. Taking a socially responsible position actively may also help local companies seize the export market share that provides companies with a global supply chain where CSR practices are taken seriously (Investor Digest, 2003).

Nevertheless, the degree of concern among businesses and society for CSR has increased in recent years. But, studies on CSRD are still growing (William and Pei, 1999; Hackston and Miles, 1996). Earlier studies in this field can be categorized in two different forms. Several studies considered the extent of CSRD (e.g. Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Che Zuriana et al., 2002; Kin, 1990), while other studies examined and recognized the driving factors behind the disclosure of CSR activities (Amran and Selvaraj, 2007; Rashid and Ibrahim, 2002; Teoh and Thong, 1984).

For example, Kin (1990) used the annual reports of 100 registered Malaysian companies, and classified CSRD into five main themes. They reported that only 66 companies disclosed information on products and services, 31 on employee relations, 22 companies on community involvement and only one on the environment. Since then, there has been no other CSRD research published in Malaysia until 2002, when a research was published by Che Zuriana et al. (2003). They taken 100 the Malaysian PLCs for the period of 1995 to 1999. They noticed that less than 30 percent of the companies disclosed information concerning CSR. Their study also showed that most disclosure is concerned with human

resources information. Several companies disclosed in both narrative and quantitative patterns.

Thompson and Zakaria (2004) used content analysis to examine the level of CSRD in the Malaysian PLCs. They found that 81.3 percent of the 257 the Malaysian PLCs investigated (annual reports in 2000) made social disclosure. They also found that most companies made disclosures on human resources (40 percent), product and consumer (24 percent), community involvement (22 percent), and the environment (16 percent). Abdul Hamid (2004) investigated CSRD practices in the banking and finance sector for the Malaysian PLCs. He used content analysis to explore four themes of social disclosure, namely, the environment, human resources, community and product. He concluded that the product theme attracted the highest disclosure. The second highest disclosure is related to human resources, followed by the community involvement and the environment. In summary, product disclosure is considered more important than other corporate social disclosure themes. This suggests that players from the banking and finance industry attempted to introduce more competitive banking products to attract depositors and the public to use their services.

The above studies indicate that the CSRD progress in Malaysia has a clear future as the number of companies involved in CSRD is growing. Prior studies on CSRD development in Malaysia indicate that the condition of CSR practices and disclosure are in the emerging stage (for example, see Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad and Abdul Rahim, 2003; Nik Ahmad et al., 2003; Che Zuriana et al., 2002). Amran (2006), in his exploratory study found that Malaysian companies are involved in CSRD

because of the pressure from the government. The influence on foreign business partners was also seen as a contributory factor for engaging in CSRD. Although, some pressure exists, the involvement of CSR for the Malaysian PLCs has still not been translated into a higher level of social practice and disclosure (Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999). Thus, it is necessary to find what other factors that are causing the low level of CSR practice and disclosure. A few possible reasons why CSRD in Malaysia is still in its growth stage are considered by Teoh and Thong (1984), namely, the lack of legislation on CSRD and the perception of companies that they will not receive any benefit from the investor or the community.

There are limited involvement in CSRD among the PLCs in term of quantity of disclosures and the quality of disclosure is poor (Bursa Malaysia, 2007; Thompson and Zakaria, 2004). Most of companies disclose in the positive manner (Thompson and Zakaria, 2004). However, there were limited to exploring the content of CSR activities in companies' annual reports and revealing the motivation of managers who were engaged in them. Although stakeholders pressure companies to be more actively involved in CSR activity, the additional numbers of companies involved in CSRD still do not provide satisfaction to the stakeholders (Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999). Earlier studies found that CSRD activities form only a part of the regular report and consist largely of self praise (Nik Ahmad et al., 2003). Hence, there is a need to study empirically whether the involvement in CSR activities has any relation to the financial performance as well as to IO.

Gelb and Strawser (2001) noticed that companies enjoy some advantages when they are involved in CSR. Companies that engage in socially responsible activities provide more informative and intensive disclosures than companies that pay less attention to advancing social goals. They added that several companies identify the importance of stakeholders, and, therefore, provide more exposure on their CSR activities in an attempt to satisfy stakeholder requests. This issue is important because managers need to know whether their company will enjoy an economic advantage and whether it will receive a positive response from its long-term investors. The next section discusses in detail about some CSR theories which explain the motivation of companies which are involved in CSR practices.

2.3. CSR Theories

In this section, the most relevant theories on CSR and related matters are reviewed. The CSR field presents a number of different theories and approaches that are complex and in some cases contradictory (Chand, 2006). There are four major CSR approaches, which can be classified as: 1) ethical theories; 2) instrumental theories; 3) political theories; and 4) integrative theories.

2.3.1. Ethical theories

There are three approaches to the ethical condition to strengthen business relations and the community, namely, the normative stakeholder approach, the universal rights approach, and the common good approach. The main approaches will be elaborated upon in the following: 1) Normative Stakeholder approach suggests that stakeholders, such as suppliers, customers, workers, shareholders, and local and foreign communities have a claim on the company. Further explanation by Donaldson and Preston (1995) said that the

core normative stakeholder theory is based on two main ideas. First, a stakeholder is a person or group that in a practical manner has legal interests affected by the activities of the company. Second, the interests of all stakeholders have intrinsic value; 2) The universal rights approach has been accepted as the foundation for CSR, especially in the global market (Cassel, 2001). Several approaches to human rights have been put forward as a company's responsibility (Garriga and Mele, 2004); 3) The common good approach states that the business, together with other social groups or individuals in the community should contribute to the common good, as the company is part of the community. A good business should be neither harmful to nor be a parasite on the community, but must become a positive contributor to society.

2.3.2. Instrumental theories

This category of CSR theory is noticed as a strategic implementation to achieve economic aims and wealth creation. This theory is proposed by Friedman (1970:123) who views that "the only one responsibility of business towards society is the maximization share value within the legal framework and ethical custom of the county".

Garriga and Mele (2004) noted that there are three main economic theories to achieve the goal. Classification is made in accordance with the objectives of the proposed economic development. First, the maximization of the value of shareholder is calculated from stock prices. Often, it is recognized as short-term profit goals. Second, the instrumental theory focuses on the strategic competitive advantage that will be generated in the long-term. Third, cause-related marketing, which is the process of implementing marketing activities to create a contribution to make customers interested to do transaction with the company.

2.3.3. Political theories

Garriga and Mele (2004) noticed that these theories focus on the interaction between businesses and the community and on the authority and position of businesses and their inherent accountability. There are three main political theories that can be classified as follows:

1) *Corporate constitutionalism*: this approach explores the power of business in the community and the social impact of this authority (Davis, 1960). The author formulated two principles, namely, the social power equation and the iron law of responsibility. The social power equation principle states that the "social responsibilities of businessmen emerge from the amount of social power that they have" (Davis, 1967: 48). The iron law of responsibility refers to the negative consequences in the lack of utilization of power usage. In his own words: ''whoever does not use his social power responsibly will lose it. In the long run those who do not use power in a manner which society considers responsible will tend to lose it because other groups eventually will step in to assume those responsibilities'' (1960: 63).

2) *Integrative social contract theory*: Donaldson (1982) considered the company's relations and community from a social contract tradition, largely based on Locke's philosophy. He assumed that a kind of social contract is implied between the business and the community. This approach is extended by Donaldson and Dunfee (1994). They proposed the Integrative Social Contract Theory (ISCT) to count for the social-cultural context and to integrate the empirical and normative aspect of management. This theory provides a legitimate method of how to manage contracts between companies, industries and systems of economics.

3) *Corporate citizenship*. This approach has been popular among managers and business people, as a business needs to take into account the community where it is operating. There are two different views of corporate citizenship. First, a limited view of corporate citizenship states that it refers to company philanthropy, social participation or limited responsibilities towards the local society (Garriga and Mele, 2004). The second view is more general in its definition of corporate citizenship. It concerns the CSR principle without focusing on any task of the company (Matten and Crane, 2003).

2.3.4. Integrative theories

This theory discusses how businesses integrate social demand. It posits that businesses depend on the community for existence, continuity and growth. Social demand becomes the ways in which the business activities find legitimisation and prestige in their community (Garriga and Mele, 2004). The four integrative theory approaches can be explained as follows: First, *Issue Management*. It is the process by which a company can recognise, consider and respond to the social and political issues (Wartick and Rude, 1986). Issue Management research has been influenced by the strategic field, which is seen as a group of special strategic issues (Greening and Gray, 1994); Second, the *principle of public responsibility*. This refers to the scope of managerial responsibility in terms of "primary" and "secondary" involvement of the company in its social environment. Primary involvement includes the task of the essential economics of companies, whereas secondary involvement is perceived as resulting from the primary (Preston and Post, 1981).

The third approach is Stakeholder management which is oriented towards stakeholders that influence or are affected by the policies and practices of the company (Garriga and Mele, 2004). This theory integrates groups with a stake in the company when making managerial decisions. The problem is how to determine the method that is best for the company in establishing relations with stakeholders (Bendheim, Waddock, and Grave, 1998), the effects of stakeholder management to financial performance (Berman, Wicks, Kotha, and Jones, 1999), and how managers succeed in observing the competing demands of various interest groups (Ogden and Watson, 1999).

The fourth approach is corporate social performance; this theory tries to integrate several earlier theories. This model was introduced by Carroll (1979). There are three elements to this model comprises the definition of the social foundation of responsibility; listing the problem in which social responsibility is available; and the specification of the philosophic answer to the social problem. Wartich and Cochran (1985) extended the Carroll approach proposing that the social involvement of the company must lean towards the social responsibility principle, social process responsiveness and policies towards issues of management. The development by Wood (1991) introduced one more model from social performance, consisting of the CSR principle, the process of corporate social responsiveness and results of behaviour of the company.

The four focuses of the foundation of CSR theory explain why companies are involved in CSR activities. Most theories that are widely connected with CSR can be classified as the instrument, political, integrative and ethical theory. Although there is no specific theory to explain CSR practices by a company, these four theories have been used in many CSR

studies (Choi, 1999). The previous descriptions of CSR theories are presented as summaries in Table 2.1.

Prior studies revealed that besides the stakeholder theory, many studies in CSRD, is utilizing the legitimacy theory, especially in the Malaysian context (Amran and Selvaraj, 2008; Abdul Hamid, 2004; Nik Ahmad and Sulaiman, 2004; Nik Ahmad et al., 2003). Basically, both theories are coming from the political economy theory (Moorman and Laan, 2005). These theories are not competing or separating each other, but are often be interpreted using the overlapping perspectives based on the political economy approach (Abdul Hamid, 2004). Although there are differences between these two theories, but the focus of these two theories is the relationship between the company and the environment in which it operates (Neu, Warsamen, and Pedwell, 1998). In the business and academic literature, stakeholder theory has gained prevalence in recent years as it is applicable both from the perspective of managers and researchers (Jamali, 2008).

Taking into consideration the results of previous studies which found that government agencies are the important stakeholders and has the power to pressure the Malaysian PLCs to be more actively involved in CSR activities and disclosure, especially in the government linked companies (GLCs) and multinational companies (Amran and Selvaraj, 2008). This study is an effort to explore the involvement of the Malaysian PLCs in CSR practices utilizing the stakeholder theory. By utilizing a multiple years or a longitudinal analysis over the 7 years period, this study is expected to fill the gap in the prior studies which utilized only a one year period (Amran and Selvaraj, 2008; Thompson and Zakaria,

Table 2.1
CSR Theories and Related Approaches

Theory	Approaches	Short explanation	References
Instrument theories (focussing on achieving economic objectives through social activities)	Maximization of shareholders value	Long-term value maximization	Friedman (1970)
	Strategies for competitive advantages	Social investment in a competitive context	Porter and Kramer (2002)
		Strategies based on the natural resource view of the company and the dynamic capabilities of the company.	Lizt (1996); Hart (1995).
		Strategies for the bottom of the economic pyramid.	Hart and Christensen (2002); Prahalad and Hammond (2002).
	Cause-related marketing	Altruistic activities socially recognized used as an instrument of marketing.	Varadarajan and Menon (1998), Murray and Maontani (1986)
Political theories (focussing on a responsible use of business power in the political arena)	Corporate constitutionalism	Social responsibilities of business arise from the amount of social power they have	Davis (1960, 1967)
	Integrative Social Contract Theory.	Assumes that a social contract exists between a business and society	Donaldson and Dunfee (1994)
	Corporate (or business) citizenship	The company is understood as being like a citizen with certain involvement in the community.	Wood and Lodgson (2002), Matten and Crain (in press)
Integrative theories (focussing on the integration of social demands)	Issues management	Corporate process of response to those social and political issues which may impact significantly upon it.	Wartick and Mahon (1994); Vogel (1986); Sethi (1975).
	Public responsibility	Law and the existing public policy process are taken as a reference for social performance.	Preston and Post (1975, 1981)

Table 2.1 (continued)

	Stakeholder management	Balances the interests of the stakeholders of the company.	Agle and Mitchell (1999); Mitchell et al. (1997); Rowley (1997)
	Corporate Social Performance	Searches for social legitimacy and processes to give appropriate responses to social issues	Swanson (1995); Wood (1991); Wartick and Cochran (1985); Carroll (1979).
Ethical theories (focussing on the right thing to achieve a good society)	Stakeholder normative theory	Considers fiduciary duties towards stakeholders of the company. Its application requires reference to some moral theory (Kantin, Utilitarianism, theories of justice, etc)	Phillips et al. (2003); Freeman and Phillips (2002); Donaldson and Preston (1995); Freeman (1984, 1994).
	Universal right	Frameworks based on human rights, labour rights, and respect for the environment.	The Global Sullivan Principles* (1999), UN Global Compact (1999)**
	The common good	Oriented towards the common good of society.	Mele (2002), Kaku (1997)

Source: *Garriga and Mele (2004).*

* The Sullivan Principles are company codes of conduct, for promoting CSR. The Sullivan Principles were released in 1977 to apply economic pressure on South Africa in protest of its system of apartheid. The principles ultimately broaden adoption amid United States-based companies. United Nations. (1999). Global Compact (www.unglobalcompact.org).

**United Nations. (1999). Global Compact (www.unglobalcompact.org).

2004; Nik Ahmad et al., 2003). This study is an aim to enrich the literature on CSR study by examining the relationship between CSR and CFP as well as IO adopting the stakeholder theory in the context of an emerging market.

Numerous approaches for CSR have been presented and discussed in the preceding paragraphs. This thesis intends to use a definition of CSR that is based on stakeholder approach as part of integrative theories of CSR. To conclude, CSR concerns efforts of businesses to balance its main goal of maximizing profits with what stakeholders want, especially in the social aspect. Thus, this theory proposes that the existence and the progress of a company is considered when both its economic and non-economic objectives has been achieved such as maximization of profit and a good social responsibility practices to satisfy the wider stakeholders needs (Pirsch, Gupta and Grau, 2007).

The stakeholder theory is the most popular approach to explain companies' involvement in CSR activities (Elijodo-Ten, 2004; Davenport, 2000; Clarkson, 1995; Roberts, 1992; Ullmann, 1985). In this theory, a company is viewed as having an expressed or implied social contract with the society and provides social disclosure to inform the society of the contract compliance. This theory is generally recognised and accepted by managers and is relevant as managers' tasks include monitoring and managing the company's relationships with each stakeholder group with a view to creating synergies among stakeholders (Post, Preston, and Sachs, 2002).

The CSR and the stakeholder theory both discuss issues of social responsibility. Both concepts explain the relationship between the CSR carried out by the company and the achievement of the company's financial performance (Marom, 2006). The stakeholder

theory is based on the social contract concept which maintains that CSR is the function of the public's agreement between the company and society. According to Quazi (2003), the stakeholder theory also assumes that the company is no longer only responsible to its shareholders but also to groups of the community that have some contribution to the company. This is because the company's behaviour and its decisions influence societal interests, and conversely societal decisions also influence the interests of the company. Quazi (2003) also proposed that companies have considerable authority in the community, both financially and politically. If a company ignores its social responsibility, it must pay a high price in terms of compliance with the relevant regulations, any resulting fine, lost of businesses and its long-term reputation.

In the Malaysian context, the study of CSR raises a theoretical issue. Studies show there is a gap between Malaysian managers' awareness of CSR and the actual level of CSRD (Nik Ahmad and Abdul Rahim, 2003; Rashid and Ibrahim, 2002; Williams and Pei, 1999). This indicates that the awareness level of CSR among Malaysian managers is high but is not followed through with CSR activities and disclosures. Abdul Hamid (2004) argues that managers' awareness is a result of public pressure and thus should be reflected in the companies' reports in order to appear legitimate. The regulatory and political pressure on the company is believed to be one of the most important factors that will influence the level of CSR activities (Amran and Selvaraj, 2007).

According to Visser (2007), in emerging countries, four stakeholder groups form the main powerful activists for CSR, namely trade associations, business partners, development organizations, and international NGOs. These groups organize some programmes to back local NGOs as are not usually well managed or lack sufficient

resources to support CSR implementation. The media also plays an important role in promoting CSR in developing markets as well (Vivarta and Canela, 2006).

This study attempts to discover evidence of CSR activities which are represented by CSRD in the Malaysian PLCs. It can be explained by utilizing the stakeholder theory, as it is useful to explain voluntary CSRD for two reasons. Firstly, it distinguishes between the social and stakeholder issues. Clarkson (1995) argued that managers deal with their company stakeholders and not with the public as whole. Secondly, the stakeholder theory is considered to be more appropriate to develop a testable hypothesis (Elijido-Ten, 2004). Hence, this theory is considered useful and applicable for the interpretation of the analysis in this study as the stakeholder theory can be utilized as a framework to test empirically the association between CSR and CFP (Ruff, Muralidhar, Brown, Janney and Paul, 2001) as well as IO (Neubaum and Zahra, 2006).

In the context of this study, the stakeholders demand that CSRD be a stakeholder issue as in the Malaysian context, CSRD is still unregulated (Elijido-Ten, 2004). Hence, the stakeholder theory offers a practical framework to assess CSR by using information from CSRD (Snider, Hill and Martin, 2008).

Malaysia may have a unique culture because its people represent three large ethnic groups in Asia, namely Malay, Chinese and Indian. The corporate culture of the Malaysian companies is influenced by these ethnic groups, which have their own unique characteristics called "work ethos of eastern ethnics", such as industry, mutual cooperation and adherence to their religious percepts. Basically, Malaysian managers of companies have the moral support to engage in CSR and disclose information about their CSR activities for important interest groups such as employees, customers,

community, environment and investors. Recently, external primary stakeholders, such as the government and capital market authorities, have also exerted force, through acts and regulations, for companies to be involved on CSR activities. For example, Bursa Malaysia released a CSR framework for PLCs, and the 2006 Budget speech of Prime Minister of Malaysia urging all PLCs to disclose their CSR activities (Bursa Malaysia, 2007).

Amran and Selvaraj (2008) assert that the pressure of the government is a dominant factor in motivating the involvement of the Malaysian PLCs in CSR activities. As the market is highly competitive, companies should take initiative to improve their involvement in CSR activities as a strategy to sustain their businesses. Furthermore, the involvement in CSR practices would add advantage to companies if they are considering to go global, as consumers in developed markets usually are much concerned with CSR issues. In addition, the owners of capital in global markets, particularly socially responsible investors (SRIs) are looking at CSR as a key criteria in their investment decision. Thus, the involvement of the Malaysian PLCs in CSR practices is an entry requirement on the global market and as a strategy to attract funding from institutional investors.

Additionally, the educational level of the local consumers has also improved and are playing more active role in ensuring high commitment from companies (Haniffa and Cooke, 2005). The activists and environmental NGOs' are also putting more pressures towards companies to be more concern with social responsibility and the environment in which they operates (Haniffa and Cooke, 2005; Nik Ahmad et al., 2003). NGOs are increasingly playing as important role to urge companies to be more socially responsible and in lobbying the government agencies with regard the CSR issues

(Othman and Ameer, 2010; Abdul Hamid, 2004; Nik Ahmad et al., 2003). All parties have to always preserve and protect the environment in which they operate. These have been done through activities carried out by Sahabat Alam Malaysia (SAM) and the Environmental Protection Society of Malaysia (Nik Ahmad and Sulaiman, 2004).

In line with the increasing pressures, companies are more selective to employ and retain the best employees, and pursuing a continuous innovation and product development, thus, improving the level of companies competitiveness in the local and global markets. Therefore, the involvement in CSR activities should be treated as part of companies investment in improving their competitiveness and in attracting institutional investors as well as to improve their financial performance in the long term. The high involvement of companies in CSR activities is in line with the Malaysian Government aspiration of Vision 2020, namely to transform Malaysia into a high-income and developed country. Therefore, using the stakeholder theory a company can clearly define to whom the company is responsibled to and thus the focus will be on these identified stakeholder groups (Woodward and Woodward, 2001). The stakeholder theory has been used to clarify the CSRD practices in the Malaysian PLCs (Othman and Ameer, 2010; Nik Ahmad et al., 2003) and in this study is utilized as a framework to further analysis of the relations between CSR and CFP as well IO in the Malaysian PLCs context.

The following section discusses the pressure from stakeholders on companies to be involved and enhance their CSR practices.

2.4. Stakeholders Pressure on Companies for CSR Practices

It appears that companies should be aware of stakeholders' needs, because they face a lot of pressure from stakeholders. According to McWilliams and Siegel (2001), these pressures come from customers, employees, suppliers, community groups, governments, and some shareholders, especially institutional shareholders. Waddock, Bodwell, and Graves (2002) noticed that pressure come from three major sources namely the primary stakeholders, secondary stakeholders, and generalized institutional or societal pressures.

2.4.1. Primary Stakeholders Pressure

Paul and Siegel (2006) discovered that it is usually the big companies that experience pressure from stakeholders groups. Some primary stakeholder groups exert pressure on companies for CSR practices. They are owners, employees, customers, and suppliers. As the investor or the owner, they naturally want a reasonable return on their investment through profit, increased share value, and company and market growth.

Waddock et al. (2002) mentioned that a significant source of pressure from investors is for companies to carry out their responsibilities, as represented by social responsible movements or green investors. These investors select their investment portfolios based on social and environmental criteria. Socially responsible investing can force companies to modify their social and environmental practices and also can encourage changes in social and environmental policies by sale off share ownership in unfair business practices (Paton and Siegel, 2005).

Human resource is an important element in the management of companies. Manpower is not the same as capital and other materials, as human beings have significant general

constitutional rights that should not be compromised during working hours (DeGeorge, 1990). There are seven major types of employee rights in the workplace (Weiss, 2003: 223-234): the right not to be terminated without just cause; the right to due process; the right to privacy; the right to know; the right to workplace health and safety; the right to organize and strike; rights regarding plant closures.

Employee rights become more important in communities in which technology changes quickly, and scientific discovery is part of the work environment. An employee's concern regarding how a company manages its responsibilities often influences his choice of workplace (Greening and Turban, 2000). These practices are costly, but improvement in the productivity of the employee and the quality of the product can result in a positive cash flow (Waddock et al., 2002).

In this way, a company may actually benefit from socially responsible actions as they may improve employee morale and productivity (Solomon and Hansen, 1985). Turban and Greening (1997) state that a company with a strong commitment to CSR often has the capacity to attract and maintain employees, and reduce turnover, recruitment, and training costs. Employees also often evaluate the CSR achievement of their company to determine if their personal values are compatible with the business or their place of work.

Consumers are an important primary stakeholder for companies. If the consumers stop buying, the business may be scaled down or stopped completely. Consumer spending is a main indicator of economic activity and company's prosperity. Customers are increasingly urging companies through their purchasing power to carry out their responsibilities (Waddock et al., 2002). The customer wants to know whether the

company cares for the consumers' interest continually. Unfortunately, this does not often happen. For example, many companies continue to produce or distribute unreliable products, thereby placing the consumers at risk. Velasquez (2002) said managers owe their consumers nine obligations and related rights that can be summarised as follows: the duty to inform; the duty not to pretend or withhold information; the duty not to force or take undue advantage; the duty to take "due care" to prevent any foreseeable injuries; the right to safety; the right to free and rational choice; the right to know; the right to be heard; the right to be compensated.

2.4.2. Pressures of Secondary Stakeholders on Companies

Several pressures also result from the secondary stakeholders. The pressure for companies to act responsibly is especially relevant, coming from NGOs, activists, societies, and the government. For example, there is increasing demand from global activists and NGOs for companies to hold in high esteem worker and human rights standards and national sovereignty. In recent years, activists have continued to protest against the free trade agenda and globalisation (Waddock et al., 2002).

According to Weiss (2003), the problem of the environment has highlighted ethical and technological questions, and has created complications for the business community. The time has ended when companies could treat the environment as a source of free and unlimited resources. Therefore, public awareness and increased legislative control is important. The magnitude of environmental abuse, not only by industries but also by other human activities and nature's processes, has awakened global awareness for the need to protect and save it from further damage. Hence, environmentalists continually pressure companies for good, and instigate environmental management and sustainable practices.

Most multinational companies found that the main source of pressure to be involved in CSR came from primary and secondary stakeholders. Such forced CSR activity involved social conditions for safety; this is especially so in product and manufacturing processes, for example producing aerosols with no fluorocarbons or using technology in an environment-friendly manner and striving to achieve a higher level of environmental action via recycling or pollution abatement, such as taking an aggressive position towards reducing emissions (Paul and Siegel, 2006).

The followings section elaborates in detail about the important stakeholders who seek companies which practice CSR. These stakeholders are institutional investors and socially responsible investing (SRI).

2.5. Institutional Investors

Institutional investors are growing rapidly and replacing individual investors in the number or percentage of ownership of shares in public companies. Some institutional investors act as the main players in the capital markets in the world. They include pension funds, banks and insurance companies, investment funds and mutual funds.

Recently, it can be observed on stock exchanges all over the world that shares owned by institutional investors have been increasing dramatically. There has been a rapid increase in shares owned and traded by institutional investors on the US Stock Exchange over the last two decades. Institutional investors own more than 50 percent of the shares of companies registered on the New York Stock Exchange (Ko, Kim and Cho, 2007). The institutional investors growth in the UK has resulted in about 80 percent of assets being owned by financial institutions, especially insurance companies (17.2 percent), pension funds (15.7 percent) and foreign investors (32.6 percent) (Dong

and Ozkan, 2007). Institutional investors in the stock market have own characteristics and behaviour in the investment decision. Consequently, the impact of share ownership by institutional investors on share prices has become the subject of intensive discussion and research among academics and practitioners (Ko et al., 2007).

Some studies have investigated the preferences of institutional investors towards their shares portfolio. As institutional investors invest and manage the mortgage portfolio on behalf of the trust given to them, they should always be ready to meet redemption requests. Falkenstein (1996) observed that large mutual funds in the U.S. are more interested in investing in shares with large capitalization, high liquidity, and easily access information. Gompers and Metrick (2001) reported that the 100 top institutional investors have bought shares in the US stock market with large capitalization, high liquidity, and higher book-to-market ratio.

It is widely admitted that financial institutions are different from individual investors, because they generally have stakes and manage large pools of investment funds (Ozkan, 2007). They are able to provide effective oversight and become effective observers because they have a superiority of cost from the scale of economics and diversification. According to Dong and Ozkan (2008), institutional investors can use various official and informal mechanisms such as voted right, shareholder activism, and the election of council members to influence management. The institutional investors also have more power and expertise, and act more rationally. Therefore, they are more effective than individual investors who are ineffective in affecting the company policies (Cubbin and Leech, 1983).

2.5.1. The Market Growth of Institutional Investors

The increase in the ownership level of shares by institutional investors is a normal sign observed in stock exchanges all over the world. However, the characteristics and development of institutional investors are different between stock exchanges. For example, banks in Japan as the largest institutional investor generally have relations with industrial companies through mutual shares ownership; in other words, the Japanese banks have shares, not for investment with higher returns, but for business relations and supervision (Ko et al., 2007). It is different in Korea where banks are not important institutional investors. Most Korean institutional investors such as mutual funds, insurance companies, and National Pension Fund, usually invest in shares for the intention of managing their assets.

Table 2.2 shows that the Central Provident Fund, Singapore's largest financial agency, operates on an interest bearing savings system. It receives 20 percent of all wages, from both public and private sectors. However, the Central Provident Singapore is not a stock exchange player. Most of its working capital is held in government bonds, and not directly invested in shares. According to Maru (2007), in Malaysia too, most savings are gathered through the Employees Provident Fund (EPF) and other pension funds. He noticed that until recently, above 70 percent of the fund from this agency was held in government bonds. There are limited investment options on the stock exchanges. In Thailand, commercial banks and financial agencies are the most important financial agencies, while insurance companies and investment trusts have been relatively unimportant (Maru, 2007). In Malaysia, 16 percent of the shareholding composition is held by individual investors, 38 percent is held by nominees, followed by financial institutions at 46 percent.

Table 2.2
Institutional Investors in Asian Countries (US$ Million)

Country	Pension Fund	Life Insurance	Mutual Fund	Total
China	-	8,246	2,416	10,662
Hong Kong	2,012	7,229	183,030	192,271
Indonesia	4,031	0,588	0,633	5,252
Korea	43,432	35,703	211,780	290,915
Malaysia	46,859	1,347	10,184	58,390
Philippines	7,194	0,466	0,138	7,798
Singapore	51,471	31,756	4,372	87,599
Thailand	8,270	1,342	8,020	17,632
Total	163,269	86,677	420,573	670,519

Notes: - data not available; Source: Asian Development Bank, 2003.

Included in financial institutions are domestic institutional investors, whereas, overseas institutional investors are group together with nominees (Maru, 2007). The growth of the domestic and regional market attracted extra institutional investors who invest their fund in its markets. In this way, institutional investors will play an important role as a stock exchange player. For instance, 51.03 percent shares of the Top 10 highest market capitalization in FTSE Bursa Malaysia 100 index remains with institutional investors.

Institutional investors such as Employee Provident Fund (EPF), Permodalan Nasional Berhad (PNB) and Lembaga Tabung Haji (LTH) have important roles in improving corporate governance, which has become increasingly important in Malaysia. PNB's goal is to increase the bumiputra (indigenous people) ownership of shares in public companies to 30 percent. PNB has become the largest shareholder in the PLCs on Bursa Malaysia, in companies in the following sectors: manufacturing, construction, finance, plantations, trading and services, and others.

EPF and other institutional investors are also mobilised to increase bumiputra ownership of shares to the target 30 per cent (Shimomoto, 1999).[20] For example, ownership share of capital by bumiputra in the Malaysian PLCs is already increased from RM62,976.00 million in 2000 to RM100,037.20 million in 2004 or 18.9 per cent of total market capitalization of Bursa Malaysia[21] . Thus, the institutional investor can utilize their power to improve one or both, dividends and asset values which invested in the companies to enhance corporate governance.

Belev (2003) added that institutional investors also play an important role in corporate governance. The role institutional investors can play in corporate governance is based on their dual status. As owners of shares in companies listed in capital markets, maximizing shareholders value should become their aim. On the other hand, most investors have multiple ownership and could personally give clear examples of good or poor corporate governance. A substantial body of research has focused on the function of institutional investors as company observers.

Effective monitoring is expensive, and only big shareholders like institutional investors can achieve enough profit to have the incentive to monitor (Cornett, Marcus, Saunders, and Tehranian, 2003). Indeed, Shleifer and Vishny (1986) realised that large shareholders have possibly a higher incentive to observe managers, than a member of the board of directors, who may have little or no capital invested in the company. Big institutional investors have the chance, resources, and capacity to observe, discipline, and affect managers. Del Guercio and Hawkins (1999), Smith (1996) and Nesbitt

[20] http://www.adb.org/Documents/Books/Rising_to_the_Challenge/Malaysia/mal-cap.pdf.

[21] http://www.utusan.com.my/utusan/SpecialCoverage/RMK9/english/Chapter16.pdf.

(1994), found consistent findings through hypotheses that company monitoring by institutional investors can produce managers that are more focused on the achievement of the companies and reduce opportunist or self interested behaviour.

Maug (1998) pays attention to institutional investors and how they use their capacity to influence company decisions. If the percentage of share ownership by institutional investors is high, then it is less marketable, as institutional investors hold their shares for a longer period. In this case, there is a greater incentive to observe the management of the company. However, when institutional investors hold relatively few shares in a company, they can easily liquidate their investments if the company performs poorly, and, therefore, have less incentive to observe (Cornett et al., 2003). It is apparent that large shareholders and institutional investors have become increasingly active in corporate governance, particularly in companies with weak performance (Cornett et al., 2003). Gillan and Starks (2000) established that proposals for corporate governance that are sponsored by institutional investors receive more support than those sponsored by independent individuals.

In addition to institutional investor activism, a number of researchers have revealed a direct impact of institutional investors on the financial performance of a company. McConnell and Servaes (1990) found that the percentage of institutional ownership is positively related to CFP. Del Guercio and Hawkins (1999), Smith (1996), and Nesbitt (1994), also found a positive relationship between institutional ownership and various measures of CFP. However, Duggal and Millar (1999); Faccio and Lasfer (1999); and Karpoff, Malatesta, dan Walkling (1996), found no significant relationships. In this way, the impact of the number of shares of institutional investors on the company's performance is still being debated.

2.5.2. Socially Responsible Investing

Investors are the most important element of the business cycle. Recently, ethical investors have played an important role by investing their money in the capital market. Ethical investment consists of several activities including Socially Responsible Investing (SRI) and shareholder activism, but the activity that attracts the attention of the media is that of ethical mutual funds (Schwarts, 2003). The ethical investment funds seem to have found a way to reduce conflicts between making earnings and ethical considerations of social responsibility. Making profit derived by a company from the current business activities, have been matched with ethical values and moral commitments. Further, it can be used to introduce and to spread their moral values to the parties who may have different values, from what should be considered or the socially responsible behaviour of the companies operating in which the funding was placed (Hellsten and Mallin, 2006).

In the previous decade, SRI was often called ethical investment or sustainable investments and it has developed quickly all over the world. SRI is a process of investment that integrates social, environmental, and ethical considerations in the investment decision making process (Renneboog, Horst, and Zhang, 2008).

Socially responsible investors are focused on investing in companies based on their social ethical perception, popularly known as ethical investing. It start off when a group of institutional investors which invest their money in companies that operated in South Africa are concerned with the apartheid policy practiced by those companies (Weigand, Brown, and Whilhelm, 1996). In the two previous decades, ethical investing movements grew tremendously. In the United States, the value of social investing is above $2 trillion dollars, which represents approximately 13 percent of all money under

professional management (McVeigh, 2000). Nearly $300 billion dollars has been invested by 500,000 investors in at least 14 funds categorized as ethical or social mutual funds in Canada (Cowton, 2000).

Ethical investing has become the fastest growing sector of the UK retail fund market. More than 20 funds were launched in the past three years, expanding tenfold over the past decade to become an approximately $6 billion asset. However, the most dynamic retail market is France, which tripled its number of funds between 2000 and 2002 (Whitten, 2004). According to Skorecki (2001), in Britain alone, there are 54 ethical funds to choose from with over three billion pounds invested. Other European countries which also established ethical or social mutual funds are Sweden (42), Switzerland (22), France (14), Belgium (14), Germany (11), Italy (5), Norway (2), and Finland (1).

Schwarts (2003:196) noticed that since the 1980s, several factors may have contributed to the tremendous recent growth of social or ethical investment. The biggest contributory factors which influence the growing level of social and ethical investment are summarised in Table 2.3.

According to Whitten (2004), the contribution of pension funds has also improved significantly. Social Investment Forum of UK reported that almost 75 percent of the UK pension funds that are involved in SRI are also active in several types of shareholder commitment. It is hoped that an estimated 74 percent of Holland's pension funds use social criteria in their portfolio investment decisions. The SRI screened funds of the US market is very big, around $2.2 trillion.

Table 2.3.
Growth Stages of Social and Ethical Investments

No	Item
1	growing investor concerns over issues such as the environment, labour, repressive regimes, product safety, and tobacco,
2	growth in business ethics and corporate responsibility movement (e.g., corporate, academia, media, special interest groups, consulting activities, etc),
3	growing evidence that ethical funds produce attractive returns (or at least generate similar returns),
4	growth of advertising of ethical mutual funds,
5	greater media exposure,
6	growth of sustainability indices that only include socially responsible companies,
7	growth of national social investment organizations and their related activities.

Source: Schwarts (2003), page 196.

In addition, Whitten (2004) reported that after Australia, Japan is seen as Asia's most developed and promising SRI markets, but it is still small. The first time an SRI fund was introduced into Japan was three years ago and now over 100 billion yen is invested in 11 SRI funds. However, Japanese SRI Fund managers and investors are more often focused on human rights, supply chain issues and environmental protection, and they do not consider investing in the companies which related to cigarette, alcohol, gambling, anti-social issues and nuclear power as well as weapon.

The first SRI funds in Malaysia were the Maybank Ethical Trust Fund, which was launched on 7 January 2003, followed by Philip First Ethical Fund managed by Philip Mutual, released on 3 June 2003. Prior to these two funds (up to June 2002), there were 34 Islamic funds which partially played the role of SRI funds (Wong, 2003). The new choice to Shariah investment in the form of ethical or socially responsible funds is

slowly emerging in the Malaysian investment scene. Hence, the Shariah Index is released followed by the establishment of the Shariah Advisory Council and the maintenance of the list Shariah compliant securities on Bursa Malaysia. Besides, the Sustainable and Responsible Investment in Asia (AsriA) noticed that the awareness level of Malaysian investors who are concerned with investment screening has made Malaysia a sturdy potential market for custom SRI funds (CG, 2005)[22]. It is timely for PLCs in Malaysia to be more intensely involved in CSR activities and to disclose them, because ethical investing or SRI utilizes both financial and social criteria when evaluating investments to ensure that the shares chosen are consistent with their personal value beliefs and system (Sauer, 1997).

Based on the discussion results presented in the section above, it can be concluded that there is need for a comprehensive research on CSR practices related to financial performance and institutional investors in Malaysia. There are limited studies concerning whether CSR practices has any impact on financial performance and institutional investors in Malaysia. This may be one possible reason why companies disclose little of their CSR activities. The relationship between CSR and CFP, as well as IO uses the stakeholder theory approach, which is briefly discussed in following sections.

2.6. Theories on the Relationship between CSR and CFP

A better understanding of the relationship between CSR and the CFP helps to provide information for managers, shareholders, and other stakeholders of a company, either

[22] CG (2005). Corporate Social Responsibility (CSR). Available on *File: //E: corporate governance.htm.* 1-3.

directly or indirectly (Simpson and Kohers, 2002). For example, the level of human resources turnover is expected to be low if a company provides a good working atmosphere for their employees. McGuire et al. (1988) argue that a company that is perceived to be more socially responsible appears to have relatively fewer worker problems and consumers are more interested in buying its products. CSR activities are able to enhance a company's reputation and relationship with bankers, investors and government officials. Improving relationships with these parties may possibly lead to some form of financial advantage. A company's involvement in CSR activities has been suggested as one factor that influences banks and other institutional investors in improving credit facilities and investments (Pava and Krausz, 1996; Graves and Waddock, 1994; Rosen, Sandler, and Shani, 1991; Spicer, 1978). Hence, a good CSR profile possibly results in more opportunities for a company to obtain funding. According to Pava and Krausz (1996), companies that manifest social responsibility generally demonstrate superior financial performance compared to other companies that are less socially responsible.

Utilization of several different theoretical approaches explains the findings of the relationship between CSR and CFP, as various studies have shown globally. Notably, there are four postulates of the theoretical relationships between CSR and CFP, namely, the trade off hypothesis; the supply and demand theory of the company; the social impact of hypothesis; and the theory of modern corporate stakeholder (Laan, Ees, and Witteloostuijn, 2008; Salzmann, Somers, and Steger, 2005; Preston and O'Bannon, 1997). All these theories broadly investigate the impact of CSR on CFP.

The trade off hypothesis, introduced by Friedman (1970), argues that the only social responsibility of a company is to enhance its profits. Furthermore, when companies

become involved in social and environmental activities, it incurs extra expenses and decreases the earnings of the companies. Hence, according to this theory, the higher a company's CSR level, the lower the CFP (Salzmann et al., 2005). Consequently, increasing involvement in social activities increases the amount of resources spent by the company, and, as a result, reduces the profitability of the company. Thus, this places the company in a disadvantageous position compared to a company not involved in CSR activities. In this regard, CSR has a negative impact on CFP (e.g. Moore, 2001; Vance, 1975).

The supply and demand theory of the company was introduced by McWilliams and Siegel (2001). According to this theory, the demand for the involvement of a company in CSR activities maximizes a company's profits. Steger, Somers, and Salzmann (2007) state that in an equilibrium condition, the level of CSR may be different, however, profit may be maximized or not changed. Hence, there is no relationship between CSR and CFP. This theory is supported by empirical findings of previous studies (see, Mahoney and Roberts, 2007; Patten, 1990; Freedman and Jaggi, 1988; Alexander and Buchholz, 1978) that found no relationship between CSR and CFP.

The social impact hypothesis constructed by Cornell and Shapiro (1987) assumes that the improvement of a company's CSR activities will improve CFP. Hence, in this way, avoiding market fears that the expected benefits of carrying out CSR activities will exceed the expenses of doing so (Steger et al., 2007). This theory supports that a positive relationship exists between CSR and CFP. There are several reasons to improve the level of CSR activities as suggested, as they would improve the reputation of the business, improve the relationship with financial institutions, and reduce the risks of the company. The empirical examination reveals that CSR has a positive impact on

CFP (Simpson and Kohers, 2002; Waddock and Graves, 1997; Roberts, 1992; Anderson, and Frankle, 1980; Sturdivant and Ginter, 1977).

The theory of stakeholder could explain the relationship between CSR and CFP (Barnett, 2007; Jones, 1995; McGuire et al., 1988; Cornell and Shapiro, 1987; Freeman, 1984). According to the stakeholder theory, the value of a company is related to the cost of both "explicit claims" and "implicit claims" on a company's resources. Stakeholders have an explicit claim on a company including owner-lenders, employees, and the government. There are numerous claims on the management of the company from the external stakeholders, which are referred to as implicit claims. Cornell and Shapiro (1987) state that some implicit claims consist of the continuity of supplies, on-time delivery, the increase in the quality of products, work safety, as well as involvement in social and environment activities. The price that must be paid by stakeholders for this claim depend on the company's situation, including the financial policy applicable to the company.

According to McGuire et al. (1988), when a company does not satisfy the implied contract, the group of implicit claims, involved in this contract, may try to change from implicit claims to explicit claims. The consequences of the change in the contract may involve more cost in the future. For example, when a company is careless by polluting the air, the image of the company may be affected, and it may also acquire negative responses from stakeholder groups. This could in turn trigger other implicit stakeholders to make their claims explicit. Thus, a company that is socially responsible may have fewer problems, thereby, incurring lower costs from the explicit claims compared to those companies that are not socially responsible. Johnson (2003) concludes that a company that focuses on positive employee practices, satisfies the

needs of its customers, and puts forward initiatives aiming to be a good corporate citizen, has the tendency to have superior CFP compared to those companies that do not emphasize these aspects. Therefore, the researchers conclude that CSR may have a negative, neutral and positive relationship with CFP.

The main idea in this section is based on previous arguments and the theoretical relationships between CSR and CFP. Previous researchers realise that a company is no longer only simply oriented in the interests of the company, but is also more likely to be active in efforts to increase the company's overall performance. According to the arguments of the theories in the preceding section, those theories concur that the relationship exists between CSR and CFP. For instance, the trade-off theory supports the existence of the relationship between CSR and CFP, but it is an indirect relation. In addition, the stakeholder theory is more acceptable and relevant in explaining the relations between CSR and CFP. In this theory the interests of various stakeholders are concerned toward a company actively involved in CSR activities.

2.6. 1. Empirical study of the relationship between CSR and CFP

Numerous empirical studies of the relationship between CSR and CFP have been implemented in developed markets. Margolis and Walsh (2003) noted that 122 researchers have published the relationship studies between CSR and CFP during the of period 1971 to 2001. The empirical studies are essentially of two distinct categories. The first category uses the methodology of event study that considers the short-run financial impact if the company is involved in either socially responsible or irresponsible actions. There have been mixed results concerning these issues. For instance, Wright and Ferris (1997) found negative relationships, while other researchers

found positive relationships (Hall and Rieck, 1998; Posnikoff, 1997) and, Teoh, Welch and Wazzan (1999) report no relationship between CSR and CFP.

The second category examines the relationship between CSR and CFP, in terms of long-term financial impact, using accounting and market based measurements. The findings from prior research are also mixed. For instance, some studies report a negative relationship between CSR and CFP (Moore, 2001; Vance, 1975), while other studies reveal a neutral or non relationship (Mahoney and Roberts, 2007; McWilliams and Seigel, 2000; Patten, 1990; Alexander and Buchholz, 1978). Most of the prior studies find a positive relationship between CSR and CFP (Simpson and Kohers, 2002; Roman, Hayibor and Agle, 1999; Graves and Waddock, 1994; Roberts, 1992; McGuire et al., 1988; Cochran and Wood, 1984; Anderson and Frankle, 1980; Belkaoui, 1976; Bowman and Haire, 1975).

Griffin and Mahon (1997) noticed that much reform has taken place in the methodology adopted by researchers over the past 25 years, since the beginning of the empirical investigation of the relationship between CSR and CFP. Researchers have conducted cross-sectional studies on different industries with the accounting data from big companies as the measurement of CFP. The CSR measurement has improved, from the measurement of a single dimension to a multidimensional measurement, like the Fortune Survey of Company Reputation and KLD index developed by Kinder, Lydenberg, Domini & Co., Inc (Griffin and Mahon, 1997).

There are numerous studies on the short-term financial impact of CSR on CFP reported by Frooman (1997). He conducted a meta-analysis of 27 event studies and analyzed the relationship between the reaction of the stock exchange to illegal actions and

socially responsible actions. He found that the market reacted negatively to companies that commit socially irresponsible or illegal acts.

For instance, Waddock and Graves (1997) analyzed 469 companies in Standard and Poor 500 (S&P 500) using regression analysis. A weighted composite measurement of CSR, similar to the KLD index, is used for CSR and three measurements of accounting (ROE, ROA and ROS) for CFP. Waddock and Graves integrated the measurement of risk and industry as control variables, and tested various econometric specifications of the model, including variables lagged. Their findings provided further support of the relationship between CSR and CFP. Moore (2001) used a small sample size, employing eight supermarkets in the U.K. His analysis consisted of 16 items of social performance measurements as a proxy for CSR and he employed accounting based measurements to represent CFP. The conclusion of his study was a negative impact of CSR on CFP.

There are some studies (e.g. Mahoney and Roberts, 2007; Simpson and Kohers, 2002; McWilliams and Siegel, 2001; Stanwick and Stanwick, 1998; Preston and O'Bannon, 1997) that looked at data gathered for longer periods. For instance, Preston and O'Bannon (1997) focussed on the relationship between CSR and CFP for 67 large U.S corporations over an 11-years period, 1982–1992. They use three components of the Fortune Survey of Corporate Reputation to represent social performance and three variables of profitability namely Return on Assets (ROA), Return on Equity (ROE) and Return on Investment (ROI) to represent the financial performance of companies. They found a positive relationship between CFP and CFP. Other study by Stanwick and Stanwick (1998) use the Fortune Survey of Corporate Reputation as a measurement of CSR as a dependent variable within their regression model. ROS, SIZE, and the

environmental performance variable, as in EPA Toxic Release Inventory Reports, are used as independent variables. They found a significant positive relationship between CSR and CFP.

In addition, McWilliams and Siegel (2001) performed the regression model to test the relationship between CSR and CFP using a dummy variable to represent the Domini Social Index 400 (DSI 400) as the measurement of CSR. They used the average of the annual values, between 1991 and 1996, of 524 big US companies for the regression model, including CFP as the dependent variable, and CSR, industry type, and expenditure on research and development as independent variables. By utilizing cost-benefit analysis, they found that CSR is not significant when a research and development variable is included into the model. The researchers conclude that there is no relationship between CSR and CFP.

The most recent empirical study between CSR and CFP is conducted by Mahoney and Roberts (2007), who performed an empirical analysis on a large sample of Canadian listed companies. Based on the tests, utilizing four years of panel data, they found no significant relationship between a composite measure of CSR and CFP. However, they found significant relationships between individual measures of companies' CSR, regarding environmental and international activities, and CFP.

The positive relationship between CSR and economic performance are shown in other studies. McGuire et al. (1988) claim that CSR activities could possibly improve the reputation of a company and its relations with bankers, investors, and officials of the government. The improvement in relationship with those organizations may be interpreted as an economic benefit. According to Pava and Krausz (1996), a good CSR

profile of a company is one factor that can influence investment decisions by banks and other institutional investors. Therefore, a CSR profile improvement for a company enables more opportunities to source for funding.

Studies on the relationship between CSR and CFP have been conducted in the US and UK markets. An empirical study of CSR and CFP in the developing market is rare, with only one study of CSR and CFP in an emerging market, conducted by Subroto (2002). He employed an explanatory survey and multivariate correlations by using cross-sectional data analyses. He tested three hypotheses, concerning CSR correlation and financial performance towards the practice of business ethics in Indonesia. His sample frame consisted of 106 companies and 386 respondents using a questionnaire survey. The results of the testing for the first hypothesis of all the interests from the stakeholders showed a significant correlation. Findings for the second hypothesis are still positive. Finally, the result for the third hypothesis showed that the correlation between CSR and CFP is low.

There are mixed empirical evidence on the relationship between CSR and CFP, with various factors influencing these findings. Griffin and Mahon (1997) identified some problems in previous studies and they recommended future empirical investigation. *First*, most of the studies reviewed by Griffin and Mahon employed a sample from various industries. The problem with this approach is the unique characteristic of the industry creates unique characteristics of social performance based on different internal characteristics and external demands. Griffin and Mahon suggested that the study of various industries distracted the relationship among stakeholders and the proper measurements of CSR and CFP unique to those stakeholders. The examination showed that the industry is the essential variable in the analysis involving multiple industries.

The nature of stakeholder actions appears to be an important factor on CSR activity, and different industries face different portfolios of stakeholders with different degrees of activity, in different areas (Simpson and Kohers, 2002; Rowley and Berman, 2000; Griffin and Mahon, 1997). For example, the focus in one industry concentrates on internal validity, rather than the external validity of analysis in multiple industries. Hence, Simpson and Kohers (2002) utilized a single industry in their study, extending earlier research on the relationship between CSR and CFP. The contribution of the study provides an empirical analysis of companies from the banking industry, in which they used the Community Re-Investment Act (CRA) assessment as a measurement of CSR. They found that there is support for a positive relationship between CSR and CFP. Moore and Robson (2002) also examined the relationship between CSR and CFP of eight companies in the supermarket industry in the UK. The evaluation of CSR is based on the derivation of a 16-measure social performance index, and CFP is based on a 4-measurument financial performance index. Although their study used a small number of companies, there are partial significant results.

The second problem suggested by Griffin and Mahon (1997) is that multiple measurements of the CFP should be applied. Many prior investigations use only one measurement of CFP, such as accounting based measures. Notably, both the accounting and the market measurements should be used because market based measurement possibly yields more information compared with accounting based measurement alone. As with the other study, some limitations on the methods of analysis exist. The weakness of Tobin's *q* is the interpretation of its value. Tobin's *q* is a proxy of the management quality, nevertheless, that interpretation is vague. However, Tobin's *q* has been utilized and is often believed to be a significant explanatory power to the response of market information.

On the whole, the findings on the relationship generally have been inconclusive, ranging from findings of negative, neutral and positive relations. Table 2.4 shows the summary of the empirical studies conducted on the relationship between CSR and CFP which utilize various proxies for measurement of CSR activities. Most of the earlier studies of the relationship between CSR and CFP utilized social rating or indexes such as CEP and Milton Moskowitz's rating. Except for Murray et al. (2006), Table 2.4 also reported that social and environmental disclosures in the companies' annual reports are mostly adopted by researchers during period 1970s and 1980s. Many studies utilized new models of indexes such as KLD and some other index and rating. The majority of findings found a positive significant relationship between CSR and CFP. Table 2.4 says that 16 of the 28 studies (57.14 percent) showed positive relationships and two studies (7.14 percent) reported a statistically significant negative relationship between CSR and CFP. Also, nine studies (32.14 percent) found no relationship between CSR and CFP.

Table 2.4
Summary of Empirical Studies between CSR and CFP

Authors/Year	Sample Size	CSR Criteria	CFP Criteria	Results
Bragdon and Marlin (1972)	Authors correlated the pollution control indexes with profitability indexes (1965-1971) for 17 companies in the pulp and paper industry.	Council on Economic Priorities (CEP): air and water pollution measures.	earnings per share (EPS) and return on equity (ROE).	Lower levels of pollution were correlated with better CFP. (+)
Vance (1975)	Author examined updated financial performance (1972- 1975) of original Moskowitz sample.	Milton Moskowitz's social responsibility ratings.	Percentage change in share price.	One of the 14 companies in the sample had performance records considerably worse than the NYSE composite index. (-)
Bowman and Haire (1975)	Authors examined 82 companies in the food processing industry between 1969 and 1973. Authors used social disclosure as a measure for social responsibility. Some evidence provided suggests the relationship between CSR and CFP may be U-shaped.	Proportion of annual report apportioned to social responsibility issues.	ROE	Mean ROE for companies with "some discussion" was 14.3percent, while the mean ROE for companies with "no discussion" was 9.1percent. (+)
Folger and Nutt (1975)	Authors examined performance of 9 companies between March 1971 and March 1972 after substantial publicity was released about their pollution control policy.	Three pollution indexes.	Financial accounting earnings and shares price data.	No significant relationship was found between CFP and pollution ratings. (0)
Belkaoui (1976)	In the 4 month period following disclosure, the market made a temporary conversion of the positive effect of pollution control expenditure in higher share valuation.	Disclosure of pollution control information in 1970 annual reports.	Market-based returns adjusted for risk.	The 50 experimental companies, in which pollution information was disclosed, outperformed the control sample in terms of" stock returns. (+)

Table 2.4 (continued)

Sturdivant and Ginter (1977)	Authors examined 28 companies, between 1964 and 1974, who passed data requirements. They conclude that there is evidence that, in general, the responsively managed companies will gain better economic performance.	Milton Moskowitz's social responsibility ratings.	Ten year earnings per share growth.	There was a significant difference in EPS growth between the best and worst social performers. Socially responsible companies outperformed their less socially counterparts. (+)
Alexander and Buchholz (1978)	Authors examined the stock market performance of 46 companies between 1970 and 1974. They concluded that their results are consistent with efficient markets. Further, the effects of the degree of social responsibility on stock prices were either non-existent or had occurred prior to 1970.	Milton Moskowitz's social responsibility ratings	Market-based returns adjusted for risk	No significant relationship between CSR ratings and market-based returns. (0)
Chugh, Haneman, and Mahapatra (1978)	Authors compared 59 experimental companies, in high pollution industries, to 60 control companies. The authors attributed the shift in estimated betas to the increased water and air pollution control legislation during the 1970 to 1972 time period.	Companies belonging to high pollution industries	Market-based estimates of beta	Between 1970 and 1972 estimated betas of polluter companies shifted up. (+)
Ingram (1978)	Total number of samples is 287 of Fortune 500 companies during period 1970 to 1976.	Various themes of disclosures in the companies' annual reports.	Monthly portfolio returns during the nine months prior to and three months post fiscal year end.	There was no correlation between portfolio means, but there was positive correlation if the market segmentations are utilized. (0/+)
Abbott and Monsen, 1979	Total numbers of samples size is 450 of 1974 Fortune 500 companies	Overall disclosure score based on Ernst and Ernst	ROE	None, for biggest companies slightly positive correlation. (0)
Chen and Metcalf (1980)	They analyse Spicer's (1978) data from 1968 to 1973. Financial variables of this period are averaged over three overlapping periods: 1968-73, 1969-71, and 1971-73. Two pollution indices, one based on percentage of productive capacity adequately controlled and the other on percentage of mills adequately controlled, are constructed for the years 1970 and 1972.	Two pollution control indexes namely: Pollution control performance and Size of company.	Financial accounting based measures initially: Profitability, Total Risk, Systematic Risk, and price/Earnings Ratio.	There is no statistical association between pollution indices and financial indicators. The large companies and the severe effects of pollution from large operations on the environment, tends to do more, either voluntarily or involuntarily on pollution control. (0)

Table 2.4 (continued)

Anderson, and Frankle (1980)	Authors compared stock market returns between 210 disclosing companies and 113 non disclosing companies. The authors concluded that the results strongly support the contention that the market values social disclosure positively. The ethical investors may exist and, in fact dominate the market.	Annual report disclosures (1972) related to social responsibility issues	Market-based returns adjusted for risk	In a 6 month period following annual report disclosure there is no difference between disclosing and non-disclosing companies. Examination of March returns, however, gives credence to the possibility of a positive impact. (+)
Shane and Spicer (1983)	The authors examined the stock market performance of 58 companies (pulp and paper, electric power, iron and steel, and petroleum industries only) between 1970 and 1975. The purpose of this paper was to investigate the question of potential information content of socially-oriented disclosures produced outside the company.	CEP: air and water pollution measures.	Market-based returns adjusted for risk surrounding publication of CEP studies.	The results indicated that the CEP of companies experienced, on average, relatively less negative abnormal returns. Moreover, returns for those companies that revealed to have low pollution-control performance rankings were found, on average, to have significantly more negative returns than companies with high rankings. (+)
Cochran and Wood (1984)	Financial performance was examined for 39 companies for period 1970-1974 and 29 companies for period 1975-1979. The three CFP measures for each company are regressed upon industry dummy variables and dummy variables for the Moskowitz CSR types with the constant term omitted.	Milton Moskowitz's social responsibility ratings.	Three accounting based measurements are employed namely: ROA, ROS, and Excess market return.	Companies with older assets have lower social responsibility ratings. There is also a marginally significant positive association between CSR and CFP. (+)
Aupperle, Carroll, and Hatfield (1985)	The authors examined the relationship between attitudes of CEOs (for 241 companies who were listed in Forbes 1981 Annual Directory and answered a mail questionnaire) and CFP.	CEOs' concern for social responsibility as reflected in mail questionnaire.	Short-term and long-term ROA adjusted for risk.	No significant associations were found between a strong orientation towards CSR and CFP. (0)

Table 2.4 (continued)

Freedman and Jaggi (1988)	The authors examined the relationship among pollution disclosures, pollution performance and economic performance for 109 companies in highly polluting industries. All companies belonging to chemical, paper and pulp, oil refining, and steel industries that disclosed some information were examined for 1973 and 1974.	Quality and quantity of pollution disclosure in the companies' annual reports.	Financial accounting measures namely ROA, ROE, cash basis return on assets, cash basis return on equity, and operating ratio.	There is no relationship between the extensiveness of pollution disclosures and economic performance. But if population segmented by industry group, there is significant positive correlation for refining industry. (0/+)
Rockness, Schlachter, Rockness (1986)	This study examined 21 companies in the chemical industry between 1980 and1983. It also examines the disclosure of environmental performance in the annual report with respect to hazardous waste disposal.	Amount of chemical waste disposal as reported by EPA and US House Subcommittee on Oversight and Investigations.	Financial accounting based measure: ROE.	Higher ROE is associated with smaller amounts of on-site chemical waste disposal. (+)
McGuire et al. (1988)	This study examined the association between CFP and CSR for 98 companies during the 1977-1984 period. The authors concluded that it may be more fruitful to consider CFP as a variable influencing CSR than the reverse.	Fortune magazine's annual survey of corporate reputation.	Market based measures: Risk adjusted return (Alpha), total return, systematic-risk (beta), SD of total return. Accounting based measures: ROA, total assets, sales growth, asset growth, and operation income growth.	ROA and total assets showed positive relation and operating income growth had a negative correlation. Accounting and stock-market based risk measures tended to be negatively associated with CSR. (+)
Patten (1990)	The author examines the stock trading volume and price return reaction to the 1977 disclosures that certain US companies were doing business in South Africa. The author compared price and volume reaction between 37 companies who signed Sullivan principles in 1977, and 37 control companies. The results indicated that at least in terms of volume, the information did have an impact on stock market behaviour.	Sullivan Principles (A code of behaviour mandating equal economic opportunities for non-white workers in South Africa).	Market-based returns adjusted for risk and trading volume around the signing of the principles.	There is no stock price and volume stock trading reaction when the Sullivan principles in 1977 were announced. (0)

Table 2.3 (continued)

Roberts (1992)	The purpose of this study was to test "the stakeholder theory". The author examined 80 companies between 1984 and 1986 which met data requirements. The author concluded that the empirical results support the stakeholder theory.	CEP evaluations of social disclosure, dollars contributed by PACs, public affairs staff members, sponsorship of philanthropic foundation.	Financial accounting based returns, market based estimates of beta, size, etc.	There was a positive association between CSR and economic performance. (+)
Waddock and Graves (1997)	The researchers tested 469 companies in various industries. Using a 1-year lag for financial performance. They performed regression analyses using the accounting based measures as the dependent variables and CSR as the independent variable, while again controlling for debt, size, and industry.	KLD Index.	Accounting based measures were initially ROA, ROE and ROS.	They found that CSR is positively associated with prior CFP. (+)
Balabanis, Phillips, and Lyall (1998)	Authors examine the impact of CSR on CFP. The sample taken from 56 big UK companies. Results based on dimension of CSR found that philanthropic activities are partly related, but donation activities are partly not related to CFP. Involvement in environmental protection activities was found to be negatively correlated with CFP. Women's positions are positive association and donations to the Conservative Party were found not to be related to CFP.	CSR ratings by the New Consumer Group (NCG)	Financial Accounting based measures (ROE, return on capital employed, and gross profit to sales ratios); and Market based measures (systematic risk and excess market valuation).	The findings revealed that overall, CSR is positively associated to economic performance of companies. (+/-)
McWilliams and Siegel (2000)	Using the KLD data and Compustat, containing 524 companies for the period 1996-1999. To simplify the econometric analysis and to ensure comparability with prior studies that they propose five control variables namely, SIZE, a proxy for the size of company, RISK a proxy for the "risk" of company (debt/asset ratio), IND industry of company (4 digit SIC code), and additional covariates are: RDINT, R&D intensity of company and R&D expenditures/sales.	KLD Index.	Accounting and Market bases measures: Size, Risk, industry of company, research and development expenditures.	They find that CSR has a neutral impact on CFP.(0)

Table 2.3 (continued)

Moore (2001)	The sample from 8 companies in the supermarket industry.	16 measures of social performance and disclosure.	Various measures of financial performance such as growth turnover, profitability, return on capital employed, and growth in EPS	The initial findings from a study of the U.K. Supermarket industry which suggest that CSR is negatively related to CFP. (-)
Simpson and Kohers (2002)	The samples were taken from all US national banks and examined for CRA compliance from 1993 to 1994. Results reported a strong indication that CRA rating and ROA are positively correlated. The regression equation with loan losses as the dependent variable revealed that highly social performance banks had a lower loan loss.	Community Reinvestment Act (CRA) ratings.	ROA and loan losses to total loans were utilized to capture major dimensions of CFP in the banking industry.	The findings support the hypothesis that there is a positive relationship between CSR and CFP. (+)
Murray, Sinclair, Power and Gray (2006)	The samples size is taken from Top 100 of UK's companies during period 1988 to 1997. By using three types disclosures, namely total disclosure (CSRTOT), total voluntary disclosure (VOLTOT), and total environmental disclosure (ENVTOT). The authors is conducted a general linear model to investigate the relationship among share returns (low, medium and high) data and interaction different groups of disclosures.	Using database of the social and environmental disclosure provided by the Centre for Social and Environmental Accounting Research (CSEAR) of the top 100 UK companies.	Share returns of companies.	Results of their study found that there are no direct impact between share returns and social and environmental disclosure. Although their study revealed that there are consistently existence between high (low) returns and estimation of the high (low) social and environmental disclosure. (0/+)

Table 2.3 (continued)

Mahoney and Roberts (2007)	Authors used extended large-sample CSP studies by utilizing panel data on publicly held Canadian companies. Researchers investigate the relationship between CSP and CFP by running four separate regressions using panel data—two regressions include ROA as the measure of CFP and another regression includes ROE as the measure of CFP. For each CFP measure, they ran one regression using a composite CSP measure. They also ran another regression that includes individual measures of each dimension of CSP that were rated in the CSID.	The *Canadian Social Investment Database* (CSID) rating index was developed in 1992 by *Michael Jantzi Research Associates, Inc*. (MJRA).	Accounting based measures initially ROA and ROE.	They found no significant relationship between the composite CSP measure with either ROA or ROE. Whereas, in the detail analysis they found both the *environment* and *international* dimensions of the CSP measure were significantly related to ROA. (0)

Notes: (+) Denotes positive association between CSR and CFP variables.
(0) Denotes no association between CSR and CFP variables.
(-) Denotes negative association between CSR and CFP variables.

Source: Mostly adopted from Pava and Krausz, 1996.

Numerous empirical studies of the relationship between CSR and CFP were conducted in developed markets, which indicates that this issue is important and of interest to researchers. There are two methods that have been utilised, namely, the short-term and the long-term relationship studies of CSR and CFP. The findings of these studies are mixed, in that all three categories – negative, positive and nonexistent relationships – between CSR and CFP are reported. According to the tools of statistical analysis, some earlier studies use correlation analysis (Moor and Robson, 2002; Subroto, 2002; Roberts, 1992; McGuire et al., 1988) while most of them use regression analysis (Laan et al., 2008; Mahoney and Roberts, 2007; Stanwick and Stanwick, 1998; McWilliams and Siegel, 1997, Waddock and Graves, 1997; McGuire et al., 1988; Alexander and Buchholz, 1978). Based on the number of observations, several earlier researchers employ more than 200 samples size (Laan et al., 2008; Waddock and Graves, 1997; McWilliams and Siegel, 2001; Anderson, and Frankle, 1980). However, few of the researchers focussed on a single industry (Moor and Robson, 2002; Simpson and Kohers, 2002).

The trend in the current research in this field is to utilize panel data analysis (Laan et al., 2008; Mahoney and Roberts, 2007). In addition, there are some advantages of using longitudinal data analysis as researchers employ large size samples, thereby avoiding the problems that frequently occur in using too small a sample size, which makes generalizations difficult and reduces the statistical power analysis (Laan et al., 2008; Orlitzky et al., 2003). Hence, this study focuses on the analysis of the long-term relationship between CSR and CFP, which utilizes an extensive number of observations and time horizon. This study has a number of advantages over previous studies that utilize panel data analysis, as it uses longer time horizons and employs advanced

econometric methods. Moreover, this study can be employed for multiple industries as well as a single industry.

Based on the discussion above, there is a need to provide a more comprehensive study of the relationship between CSR and CFP. Hence, this thesis, by using CSRD as a proxy for CSR activities, attempts to fill the gap by studying the relationship between CSRD and CFP in the Malaysian PLCs, utilizing longitudinal data analysis, multiple measurement of CFP and based on industry analysis.

2.6.2. Measurement of CSR

There is no consensus among researchers on how to measure CSR. Tsoutsoura (2004) argues that the difficulty in the relationship between CSR and CFP is due to the lack of standardised measurement methods of CSR. Carroll (2000) stresses, CSR should use a comprehensive assessment of a company's social performance relating to all social issues and stakeholders. The extensive amount of literature shows that many academics support a more complex multidimensional CSR (e.g. Murphy, 2002; Simpson and Kohers, 2002; Orlitzky, 2001; Rowley and Berman, 2000; Swanson, 1999; Griffin and Mahon, 1997; Wood, 1991).

The following section elaborates on the various comprehensive measurements of CSR. In general, there are four types of CSR measurement utilized in developed markets: (1) The Fortune Reputation Survey; (2) The Kinder, Lydenberg and Domini (KLD) Index; Toxic Release Inventory (TRI) and Corporate Philanthropy; (4) Best Corporate Citizen. Each CSR measurement is elaborated as follows:

The Fortune Reputation Survey: This method is based on senior managers' opinions and it considers the 10 largest companies in each industry and analyses the perceptions of the senior managers on the eight characteristics related to a company's reputation (Brown and Perry, 1994): (1) quality of management, (2) quality of products or services, (3) innovativeness, (4) long-term investment planning, (5) financial level, (6) capacity to attract, expand, and retain talented persons, (7) prudent use of company assets, and (8) responsibility to the community and the environment. Based on the ranking of these characteristics, the general reputation of a company is determined (Stanwick and Stanwick, 1998).

However, the problem with the Fortune index is that the selected characteristic in the CSR evaluation is based on the perception of the company's senior managers, which may misrepresent the actual CSR practices by companies (Griffin and Mahon, 1997). Another disadvantage related to the Fortune rating assessment is that it has a tendency to look at general management measurements, rather than being specifically linked to social achievement (Waddock and Graves, 1997). It may be concluded that this method is the product of the general judgement of senior managers and that it might not accommodate unique or specific measurements of social performance.

The Kinder, Lydenberg and Domini (KLD) Index: Kinder, Lydenberg, of Domini, Inc (KLD) is an independent rating organization that evaluates the social performance of companies. KLD investigates the level of the variations and utilizes quantitative criterion to determine the assessment (Waddock and Graves, 1997). The KLD index performance basis is eight socially relevant classifications of the following general criteria, namely, community, diversity, employee relations, environment, product,

South Africa (this criterion no longer exists), military, and nuclear power (Waddock and Graves, 1997).

The KLD index is more comprehensive, and it is subjective as to how the different components use assigned weight age. Moreover, these components have strengths and weaknesses (Griffin and Mahon, 1997). Ruf, Muralidhar, Brown, Janney and Paul (2001) notice that KLD is widely used in measuring CSR.

To conclude, the KLD index is more appropriate and accepted, hence, its advantages are more important than the problems associated with it. However, some disadvantages of this method comprise one criterion that is no longer used (South Africa sanction) and some other criteria (military and nuclear power) are irrelevant for the majority of companies.

Toxic Release Inventory (TRI) and Corporate Philanthropy; TRI and corporate philanthropy are based on quantitative or hard data. These methods focus attention on only a few industries. According to Itkonen (2003), the US government and special interest groups, generally utilize TRI, in order to assess whether or not a company has released toxicity components that will negatively impact the environment. In terms of corporate philanthropy, the charitable activities of big companies are used as a benchmark among companies (Griffin and Mahon, 1997).

Best Corporate Citizen; The US Business Ethics magazine has chosen 100 corporations as the "Best Corporate Citizens" by conducting evaluations based on equal weight age of seven criteria. These criteria are the average shareholder's return for three years and the average score in six social measurements recorded by the social

investment research company. The six social measurements of companies comprise customers, workers, society, the environment, minorities, and non-US stakeholders (Murphy, 2002).

The various measurements of CSR mentioned in the preceding section have their own limitations; the choice of CSR measurement should match with the research objectives and the local conditions. According to Simpson and Kohers (2002), the problem relating to determining the comprehensive measurements of social performance is alarming. Some researchers clarify that a general CSR measurement is not essential (Griffin, 2000; Rowley and Berman, 2000), as it potentially oversimplifies a complex construct (Griffin, 2000).

All of the CSR measurements proposed in the preceding part faced their own problems and there is no final consensus among researchers. As noted previously, some empirical CSR studies tend to focus on certain social performance fields while ignoring others (Waddock and Graves, 1997). Moreover, it is difficult to make actual CSR measurements because of the complexity of CSR measurements. For example, a single dimension of CSR measurement provides too limited a perspective on how much better a company performs the relevant social scopes (Wolfe and Aupperle, 1991). Several researchers use different approaches to CSR measures. For instance, Simpson and Kohers (2002) use the Community Reinvestment Act (CRA) 1977 rating as a measurement of the social performance of business for the banking industry. Next, Gelb and Strawser (2001) adapt the ratings from the Council on Economic Priorities (CEP) as proxies for the level of each company's CSR. Furthermore, McGuire et al. (1988) utilize Fortune magazine's annual survey of corporate reputations to measure CSR in their research.

2.6.3. CSRD as Proxy of CSR

Several studies in this area use three methods to analyse CSR activities, namely: expert evaluations; content analysis of annual reports and other corporate documents; and performance in controlling pollution as a proxy measure (McGuire et al., 1988). This study uses content analysis to disclose information on CSR activities in companies' annual reports. Using content analysis on annual reports is consistent with previous research (Abdul Hamid, 2004; Thompson and Zakaria, 2004; Abu-Baker and Nasser, 2000; Unerman, 2000; Belkaoui and Karpik, 1989). The companies' annual reports are taken as the main channel to communicate and have widely been recognised in prior studies because the information in the annual reports is more credible (Unerman, 2000; Belkaoui and Karpik, 1989).

Krippendorf (1980) explains that content analysis is a research tool since it has the ability to make a valid conclusion from data according to its content. Neuendorf (2002) recommends the essential process stage as guidance in the study of any content analysis. In this regard, there are three essential processes in using content analysis as the study of CSRD. First, select the document to be analysed and second, determine the technique to measure CSRD. Previous literature shows that there are three different method of measurement as follows: *words* (Deegan and Gordon, 1996; Zeghal and Ahmed, 1990), *sentences* (Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Tsang, 1998; Hackston and Milne, 1996) and *pages* (Abdul Hamid, 2004; Hackston and Milne, 1996). The third process is to calculate the CSRD score by adding the sentences, words or pages which selected to measures CSRD.

As explained in the section above, there are no consistent results as various measurements of CSR have been used. As noted, there is no established method for the

measurement of CSR practices in the Malaysian context. Thus, this study uses CSRD as a measurement of CSR activities based on what companies have disclosed in their annual reports. Discussion on CSRD utilized in this study is elaborated in Section 4.5.1.3 of Chapter 4. The reason for using CSRD in company's annual reports as a method to measure their involvement in CSR practices is because in the Malaysian context annual reports are regarded as the main source of information by various key players in the capital market (Sumiani et al., 2007).

For this study that CSRD represents companies' involvement in CSR activities which are communicated to their stakeholders via companies' annual reports. Hence, data for CSR activities in this study are only gathered from companies' annual reports and does not take into consideration any data disclosed in other communication channels.

2.6.4. Measurements of CFP

Although, measuring CFP is less problematic, it also has a specific complexity hence, there is slight compromise around utilising the measurement of CFP. There are two broad methods to measure CFP as dependent variable employed by researchers, namely, accounting based measures and market based measures. Many researchers use accounting based measures (e.g. Mahoney and Roberts, 2007; Tsoutsoura, 2004; Simpson and Kohers, 2002; Waddock and Graves, 1997; Cochran and Wood, 1984), while others use market based measures (Davidson and Worrell, 1988; Alexander and Buchlolz, 1978), and in some studies, both measures are adopted (e.g. Huselid, Jackson and Schuler, 1997; Hitt, Hoskisson, Ireland and Mossel, 1996; McGuire et al., 1988; Aupperle et al., 1985; Chen and Metcalf, 1980).

Cochran and Wood (1984) use accounting data to measure CFP. Three accounting based measures are employed, namely, the ratio of operating earnings to assets, the ratio of operating earnings to sales, and excess market valuation. Waddock and Graves (1997) use three accounting variables, which are return on assets (ROA), return on equity (ROE), and return on sales (ROS). Other studies use ROA and loan losses (Simpson and Kohers, 2002) and Berman et al. (1999) only use ROA. Accounting variables are also used by Tsoutsoura (2004) to measure CFP, namely, ROA, ROE, and ROS.

Studies conducted by Alexander and Buchholz (1978), Abbort and Monsen (1979) as well as Han and Suk (1998) use market based measures, namely, stock return (Ri) as proxies for CFP. However, Abbort and Monsen fail to report risk correctly. Conversely, Alexander and Buchholz properly account for risk, as they did not employ an event study. Han and Suk (1998) use Ri and their framework adopts to asset pricing model.

According to McGuire et al. (1988), both the accounting and market based measures look for different characteristics of performance, and each is subject to the conditions of the particular input biases. Using accounting based measures promotes the possibility of distortions from inflation (Demsetz and Villalonga, 2001). In addition, accounting-based measures are the past aspects of a company's performance (McGuire et al., 1988). Short-term stock returns are unstable, and not suitable to be used as reliable measures for CFP, and, hence, long-term stock returns are better able to capture the values of CFP (Han and Suk, 1998).

Using accounting data to measure CFP is not adequate in making large cross-sectional comparisons across industries and across time. According to Davidson and Worrell (1990), there are problems in using accounting based measures to measure CFP in CSR studies. The first problem is with the accounting measures themselves and the second problem is related to the measurement of profitability, such as the industry, the differences of regulation, the accounting system, the differences of demography, risk, leverage, inflation, and timing. Despite the existence of some problems, Davidson and Worrell propose that researchers can still use accounting data as controls for differences in the industry, leverage, and risk as necessary (Davidson and Worrell, 1990; Aaker and Jacobson, 1987).

To avoid the problems of accounting based measures, researchers use the stock returns as a basis to measure CFP (e.g. Yoshikawa and Phan, 2003; McGuire et al., 1988). McGuire et al. (1988) believe that market based measures have various advantages over accounting based measures, including (i) it is not subject to different accounting procedures and managerial manipulation, and (ii) it represents the investors' assessment of a company's ability to generate future economic returns, rather than past performance. Hamada (1972) argues that the market is not really tolerant with regards to leverage and differences of industries, that is, the prices of shares are automatically adjusted to reflect these differences. The common method in using market data is to conduct event studies. Event study is proper in instances where the reason for the test is to determine how the market reacts to "new" information (Davidson and Worrell, 1990). The debate concerning the appropriate measurements to measure CFP has resulted in several researchers using both accounting and the market based measures to investigate the relationship between CSR and CFP (Huselid et al., 1997; Hitt et al.,

1996; McGuire et al., 1988; Aupperle et al., 1985; Chen and Metcalf, 1980; Spicer, 1978).

Griffin and Mahon (1997:11) categorized the financial measures of 51 reviewed studies into six different groups: "profitability (11 measures), asset utilization (7 measures), growth (13 measures), liquidity (6 measures), risk or market measures (12 measures), and others (20 measures, including an 'other' category consisting of 11 measures)". Earlier studies focussed on the Tobin's *q*-ratio as the measure of value of CFP, specifically to examine the relationship between the structure of ownership and CFP. Lindenberg and Ross (1981) define Tobin's *q* as the ratio of a company's market value to the replacement cost of its assets. Furthermore, McConnell and Servaes (1990) show that Tobin's *q* ratio positively relates the level of institutional ownership on CFP whereas, Demsetz and Villalonga (2001) find that the ownership structure has no statistically significant impact on the value of CFP. Welch (2003) reports different results, with limited evidence of the nonlinear relationship between managerial share ownership and CFP. The recent study by Elsayed and Paton (2004) uses Tobin's *q* as a measure of a company's performance to examine the impact of environmental performance on the value of CFP, finding that it has neutral impact. In some studies the Tobin's *q* ratio is utilized to measure the company's performance in the past if structure of ownership is largely different (Han and Suk, 1998). Again, Tobin's *q* ratio is the measurement of noise and the influence of the industrial group (Lindenberg and Ross, 1981). Nevertheless, stock returns provide more vital implications to the business society than Tobin's *q* ratio (Han and Suk, 1998).

As mentioned earlier, there are advantages and disadvantages in using accounting and market based measurements to measure CFP. According to prior studies, there is no

consistency results found by using different measurement of CFP (see Table 3.1). Thus, this study is an effort to provide the comprehensive analyses through utilizing three measurements of CFP as dependent variables namely, accounting based measurement, market based measurement, as well as the Tobin's *q* ratio to investigate the relationship between CSRD and CFP. This discussion is elaborated in Section 4.5.1.1 of Chapter 4.

2.7. The Theories on the relationship between CSR and IO

The CSR theory often causes an alignment of two contradictory ideologies that demonstrate the theory of classical economics and the stakeholder theory (Simerly, 1995). The classical perspective, articulates that the main responsibility of business is to maximize profit (Friedman, 1970). Companies have a fiduciary responsibility to the owners or shareholders, and the use of resources for social programmes is a violation of this fiduciary responsibility. The company is said to be socially responsible if it focuses its attention on maximizing the use of limited resources efficiently, as this maximises the wealth for shareholders and guarantees the company's survival. Shareholders are primarily concerned with maximizing the market value of their portfolios (Hill and Snell, 1988). Conversely, the stakeholder theory asserts that since businesses have been allowed by society to operate, then business should satisfy the social expectations of the society (Freeman, 1984).

Many managers have a positive response to the heightened interest of stakeholders in CSR by lavishing additional sources of production to support CSR. The main reason for the positive response by managers is the appreciation of the relevance of multiple stakeholder groups (Mitchell, Agle, and Wood, 1997; Donaldson and Preston, 1995). However, some managers avoid satisfying requests for CSR because they assume that this type of effort is inconsistent with profit maximization and the interests of

shareholders, notably, only this stakeholder is important (McWilliams and Siegel, 2001).

The theory of portfolio proposes that investors would consider both the rate of returns and the level of risks in making investment decisions (Graves and Waddock, 1994). Institutional investors are motivated to administer a thorough analysis before making their investment decisions for two reasons. Firstly, in response to a corporation's poor financial performance, institutional investors' substantial ownership makes it difficult to sell their shares, as doing so may harmfully influence the share price, potentially making the transaction unattractive (David, Kochhar, and Levitas, 1998; Pound, 1988). Secondly, it is challenging for institutional investors to find new beneficial alternative investments, because institutional investors tend to be diversified, already owning significant shares in most companies (David et al., 1998). The failure to find new investments and the potential loss of stock value makes 'exit' problematic. Moreover, the results of a long-term focus are that senior managers realise that there is no danger in a temporary change in share prices and are therefore not alarmed by long-term investment in social performance (Mahoney and Roberts, 2007).

Several researchers deny that institutional owners of companies that invest in long-term benefits systematically under value expected gains (Jensen, 1988). Thus, institutional investors notice the long-term benefits of a company's involvement and spending on CSR are things such as maintaining product quality, being responsive to the natural environment, society and the people they employ (Turban and Greening, 1997). The 'advanced investor' viewpoint predicts a positive association between CSR and IO. Chaganti and Damanpour (1991) found a negative relationship between stock ownership by institutional investors, and a company's debt-to capital ratio. Thus,

supporting the statement that institutional investors are risk-averse. As a result, it is anticipated that institutional investors will invest more seriously in companies that have an active involvement in CSR activities, if they believe it will influence the proceeds of a company and lower the risk of investment (Mahoney and Roberts, 2007).

The above discussions reveal that the relationship between the intensity of a company's involvement in CSR activities and the level of interests to place investment by institutional investors in a company exist. Another theoretical question is the relationship between CSR and the risk of investment for institutional investors. Spicer (1978), for example, stresses that the institutional investors regard companies with poor social performance as risky investments. The theory of an efficient market proposes that investors consider the effects of the information available to the public against future cash flow and the risk of investment simultaneously. Several institutional investors, for instance, socially responsible investors, utilise both financial and social criteria when considering investments to guarantee that chosen securities are consistent with their personal value system and beliefs (Sauer, 1997).

More recently, social concerns have been developed to promote the field of company citizenship, whereby socially responsible investors consider business responsiveness to the needs of the environment, customers, workers, minorities, suppliers, and society. Pound (1988) mentions that the investments of institutional investors are huge and do not have the flexibility of individual investors to buy and sell investments without influencing share prices. Therefore, institutional investors have a great interest in the performance of the companies they invest in, as well as in the strategies, activities and other related interest groups (Neubaum and Zahra, 2006; Cox et al., 2004; Johnson and Greening, 1999; Smith, 1996; Pound, 1992; Gilson and Kraakman, 1991; Holderness

and Sheehan, 1988). So, it is important to know the impact of information concerning CSR on the level of IO as empirical evidence, because from the stakeholder theory position, investors could view companies with high social responsibility as being a superior match with their environment, and for this reason the investment risk is lower in the long term (Simerly, 1995).

The attitudes of IO towards CSR have been examined empirically as various studies have been conducted to investigate the relationship between CSR and IO. The findings of these studies are presented in the following section.

2.7. 1. Empirical Studies of the relationship between CSR and IO

There are numerous studies on the relationship between corporate social performance (CSP)[23] and institutional ownership (IO) in developed markets (Mahoney and Roberts, 2007; Cox et al., 2004; Johnson and Greening, 1999; Waddock and Graves, 1995; Graves and Waddock, 1994). Previous studies found the existence of a positive and neutral relationship between CSR and IO. Teoh and Shiu (1990) observe the IO attitude towards CSR and the relevant information. They reveal that IO does not usually change decisions concerning investment based on a companies' disclosure statement about CSR activities in their conventional financial information, such as annual reports.

[23] Most prior studies have examined the relationship between corporate social performance (CSP) and IO (Mahoney and Roberts, 2007; Cox et al., 2004; Johnson and Greening, 1999; Simerly, 1995; and Graves and Waddock, 1994). The concept of CSP evolved from the concepts of CSR and corporate social responsiveness, which responded to questions concerning companies' social responsibilities and how these should be enacted (Neville, Bell, and Mengu¨c¸, 2006). However, "CSR" and "CSP" are often employed interchangeably (Barnett, 2007). For consistency, in this study, the term utilized is CSR.

But, IO accepts CSR information in their account, if it is tuned to specific issues, namely product development and fair business practices.

Graves and Waddock (1994) used a single value of KDL index for the measurement of eight characteristics of CSR, developed by Kinder, Lydenberg, Domini & Co., Inc, to explore the relationship between CSR and IO. They formed two regression models. The first regression model utilizes the number of IO and the second regression model employs the percentage owned by IO. In both models, the social performance index is an independent variable. They employ four control variables, namely size, financial performance, debt-to-assets ratio, and industry classification. The results show that there is a positive significant relationship between CSR and numbers of IO.

Cox et al. (2004) investigated the pattern of institutional share holding in the UK. and its relationship with socially responsible behaviour of companies in a sample of over 500 companies in the U.K. They found that social performance positively related with the long-run institutional investment. Their conclusion states that institutional investors will choose to place their investments in companies that have good social achievement and avoid investing in companies that have poor social performance.

Mahoney and Roberts (2007) examines the impact of CSR on financial performance and institutional investors, using four years panel data for a sample of Canadian companies. These companies exhibit no significant impact of companies' composite social measures on the number of institutions investing in a companies' stock. However, they found a significant impact of companies' social ratings regarding their international activities and product quality towards the number of IO.

The discussion of the theoretical and empirical analysis of the relationship between CSR and IO in the preceding section proves that the theoretical and empirical relation between CSR and IO exists. Spicer (1978) argues that institutional investors consider the low social responsibility of companies as a risky investment. This risk emerges from the possibility of damaging sanctions that result in legislative or regulatory action, decisions of a court, or consumer relations. Heiner (1989) adds that institutional investors are more able than individual investors to absorb and arrange information about CSR activities. If institutional investors invest in companies that are socially responsible, it can translate to these investors attaining the same returns with low risk. On the other hand, if institutional investors consider the risk and the returns, and the consequences of high social responsibility, this may reduce the risk, and as a result, provide managers with an incentive to invest in CSR activities (Cox et al., 2004). Table 2.5 is presents the summary of the relationship between CSR and IO by previous researchers. It can be concluded that most studies in developed markets have a positive significant relationship between CSR and IO. Hence this study aims to fill the gap in examining the relationship between CSR and IO for the Malaysian PLCs from the emerging market setting. IO as dependent variable is presented by percentage of shares owned by institutional investors, whilst CSRD as independent variable represents CSR activities of PLCs in Malaysia.

Table 2.5
Summary of Empirical Studies between CSR and IO

Authors/Year	Sample Size	CSR Criteria	IO Criteria	Results
Busby and Falk (1979)	Using a mail questionnaire survey to 500 chief financial university officers. The survey tried to measure the order for and significant information of nine social issues to universities as institutional investors.	Using nine issues of social information	Perception of chief financial officers of universities	Findings of the study reveal that universities as institutional investors exert less effort in looking for additional information for many issues. It is related to social agenda of companies that might be enclosed by outside CSR disclosing. (0)
Spicer (1987)	Author utilized 18 companies in the pulp and paper sector. These companies were selected for two reasons. First, this industry is the subject of social and environmental concern as the companies' operation affects air and water pollution. Second, Sample size of 18 companies is the subject of worse pollution control is recorded by Council on Economic priorities (CEP).	Pollution index based on the percentage of the company's pulp and paper productive capacity (tons/day) with adequate pollution-controls.	Investors' perception	The empirical investigation found that the investors' perceptions range between moderate and strong relationship among the investment worth of a company's shares and its social performance. (+)
Graves and Waddock (1994)	Number of sample is 430 companies taken from Standard and poor's 500. The main focus of their study is the behaviour of the institutional ownership with respect to CSR. CSR is the main independent variable, followed by the set control variables, namely, size, companies' probability, debt level, and industry as control variables. They employed two regression models for testing their hypotheses.	KLD index	Number of institutional investors holding company shares. Percentage of shares of companies owned by institutional investors.	The findings of study find a positive and significant relationship among the number of shares owned by institutional investors and the study also finds a positive but not significant relationship between the percentage of shares owned by institutional investors and social performance. (+)

Table 2.5 (continued)

Johnson and Greening (1999)	A sample size comprising 268 companies selected randomly for 1993. This data was taken from the KLD and Company data base. Share ownership data was taken from 252 of the companies as a proxy of disclosure. Their hypotheses are tested utilizing Structure equation modelling (SEM).	Using dimensions of the KLD index.	Percentage of shares owned by three types of institutional investors, namely, pension funds, investment management fund, and foundation, universities and churches.	They found that pension funds are positively linked to the people dimension and product quality dimension of CSR. While, there are no direct relations between mutual and investment bank funds on CSR. Top management team equity is positively associated with the product quality dimension and unconnected to the people dimension. Last, outside director is positively connected to the dimensions of CSR, people dimension and product quality dimensions. (+)
Cox et al. (2004)	Total sample size of their study is 678 constituent companies on FTSE All Share Index of UK's large companies during period of 2001 to 2002. Social Performance data was taken from the Ethical Investment Research Service (EIRIS). Accounting data was obtained from Datastream. Ownership data was derived from share ownership database of more than 2000 public companies in the UK.	Utilizing both an overall of CSR construct and three dimensions of CSR, namely, employees, environmental and community. Last, their study also categorises the companies into the best and the worst social performance.	Percentage of shares owned by long term of institutional investors and short term institutional investors.	The findings reveal that the aggregate of CSR is positive and significantly related to long-term of institutional investors and negative and partially significantly related to institutional investors in the short-term. Whereas, according to dimensions of CSR results, all three dimensions are positive and partially significantly related to long-term institutional investors and negatively related to institutional investors in the short-term. Lastly, they found that long-term institutional investors avoid investing their money in companies with poor social performance. (+)

Table 2.5 (continued)

Mahoney and Roberts (2007)	Authors used extended large-sample CSR studies by utilizing panel data on publicly held Canadian companies. Researchers investigate the relationship between CSR and IO by running four separate regressions using panel data – two dependent variables represented by number of shares ownership and percentage of shares ownership held by institutional investors. For each IO measure, they ran one regression using a composite CSR measure. They also ran another regression that includes individual measures of each dimension of CSR.	The *Canadian Social Investment Database* (CSID) rating index was developed in 1992 by *Michael Jantzi Research Associates, Inc.* (MJRA).	The number of shareholdings owned by institutional ownership and the percentage of shareholdings owned by institutional ownership.	They found a significant relationship between the CSR composite and number of shareholdings held by institutional ownership. Furthermore, according to dimensions of CSR, namely, international activities and product quality, they are significantly related to the number of institutional investors investing in companies' shares. (+)

Note: Compiled by the researcher based on the extant literature.

2.7.2. Studies on the relationship between IO and CFP

The financial literature has paid a considerable attention on the relationship between IO and CFP. However, a notable feature of this literature is its failure to reach a consensus regarding the nature of the relationship between IO and CFP (Welch, 2003). According to Jensen and Meckling (1976), the developers of the theory of ownership structure, managers tend to allocate a company's resources in their personal interests, which may conflict with the interests of the shareholders. Although managers are assigned to increase the equity of their companies, it may coincide more with shareholders, consequently a conflict of interests will emerge. The agency theory has been the dominant theme of the empirical studies on the relationships between IO and CFP (Thomson and Pederson, 2000; Han and Suk, 1998; Mudambi and Nikosia, 1998).

Shleifer and Vishny (1986) argue that the existence of large IO will have a positive impact on the market value of companies because of more effective control. Barclay and Holderness (1990) suggest that if IO acquires large equity positions, there is evidence of positive excess of returns around the announcement date. The prediction that large IO has a positive influence on the value of the company arises from the assumption that these investors have an incentive to, and can, efficiently monitor insiders. This efficient controlling reduces the likelihood that insiders will make sub-optimal decisions.

The findings of studies have mixed results, although most prior research reveals that the intensity of share owners of IO have positive relations to CFP (Tsai and Gu, 2006; Randoy and Goel, 2003; Welch, 2003; Gedajlovic and Shapiro, 2002; Clay, 2001; Demsetz and Villalonga, 2001; Han and Suk, 1998; Mudambi and Nicosia, 1998; Craswell, Taylor and Saywell, 1997). For example, Craswell et al. (1997) investigated

the relationship between the distribution of IO of the companies and CFP of 349 Australian companies listed on the Australian stock exchange between 1986 and 1989. The share ownership level is divided into two groups of ownership, namely, share ownership by insiders and share ownership by institutions. The Tobin's *q* ratio is utilized to represent the measurement of CFP. The results neither support a curvilinear relationship for insider ownership and CFP. The rest of findings reveal that there is no significant relationship between IO and CFP in Australian listed companies.

The relationships between IO and CFP in Australian companies have been constructed by Navissi and Naiker (2006), extending prior research by Craswell et al. (1997). The study has shareholding levels which are divided into active and passive investors, namely, shareholdings by company insiders, shareholdings by institutional investors with board representation, and shareholdings by institutional investors without board representation. The findings of their study reveal positive influences on the value of CFP at the lower levels of institutional investors with board representation of share ownership. Other results pointed out that institutional investors, without board representation of shareholding, do not influence the value of CFP.

In their studies, Gedajlovic and Shapiro (2002), and Han and Suk (1998) employed a long-term period of data analysis. Using time series analysis is considered to be more meaningful because researchers will find a robust conclusion. For example, Gedajlovic and Shapiro (2002) observed the relationship between the ownership structure and CFP of 334 Japanese corporations between 1986 until 1991, having the dependent variable represented by ROA as a measure of CFP. The independent variables, in terms of their hypotheses, are three measures of share ownership. The share ownership is held by five block holders that are the biggest financial agencies and non-financial companies.

The result of their study also shows a positive relationship between the concentration of ownership and CFP, which is consistent with the prediction of the agency theory.

Meanwhile, Han and Suk (1998) use share returns as the measurement of CFP and test the effect ownership structure to CFP. Share returns were taken from the Center for Research in Security Price (CRSP) New York Stock Exchange and American Stock and Options Exchange (AMEX) files. The last sample consists of 301 companies from the period of 1988-1992, using share returns as dependent variables, and five independent variables, namely, the level of insider ownership, the level of institution investors, beta coefficient, natural logarithm of the market value of equity, and earning price ratio. The results of their study reveal that the level of insider ownership influences share returns in a positive manner. They also find that an increase in the level of insider ownership has a contradictory relationship with share returns, indicating that excessive insider ownership is able to damage the achievement of corporations. The findings also demonstrate that share returns have a positive association with IO, which means that institutional owners are active in monitoring management.

Other researchers focus on a single industry. Research on the ownership structure and CFP in one industry is conducted by Tsai and Gu (2006) and Mudambi and Nicosia (1998). For instance, there is a study by Mudambi and Nicosia (1998) that examines the relationship between the ownership structure and CFP on the financial services industry in the UK. The financial services industry is chosen for the reasons that are increasingly important in the activities of the economic development of developed countries in their financial markets. They found that the concentration of ownership and the level of supervision of shareholders have different effects. In particular, the

permanent increase in supervision by shareholders of big groups causes a positive impact on the CFP.

Tsai and Gu (2006) examines the relationship between IO and CFP in the casino industry from 1999 to 2003. Given the facts of endogeneity of the institutional ownership in the casino industry, IO is found to be a significant and positive determinant of a casinos' performance, measured by a proxy for Tobin's q in a simultaneous equation model. The research reveals that investing institutionally in casinos could possibly help casino industry investors mitigate the agency problem resulting from the separation of management from ownership.

Some previous studies utilized advanced tools for the examination of the relationship between ownership structure and CFP. For example, Clay (2001) employed not only the Ordinary Least Squares (OLS) model but also the Two-Stage Least Squares (2SLS). Tobin's q is the proxy of measurement of CFP. The results showed that IO supports a positive influence on CFP. Demsetz and Villalonga (2001) investigated the relationship between ownership structure and CFP using two econometric equation models. The first, utilized Tobin's q ratio for measures of CFP as the dependent variable, and the second is the fraction of stocks owned by management as the dependent variable. Also, the sample is a random sub-sample consisting of 223 companies from the original sample of Demsetz and Lehn's (1985) study. The results of their investigations on the impact of the ownership structure on CFP are not statistically significant.

The financial theories hypothesize that shareholdings by IO can increase the managerial supervision from the corporate governance perspective and this encourages CFP

improvement. The conclusions of earlier studies have two specific findings, specifically, neutral or no relationship and a positive relationship between IO and CFP for banking and financial services industry.

In the discussions above, institutional investors seemed to be concerned about placing their money in the companies which are involved in CSR activities. There is no punishment by institutional investors if companies spend some financial resources on CSR activities. As mentioned in Chapter one, the information on a company's CSR activities is represented by CSRD in companies' annual reports. Thus, this study also attempts to explore the relationship between CSRD and IO as independent variables towards CFP as dependent variable in the Malaysian PLCs.

2.8. Summary

This chapter provides discussion on the CSR and CSRD practices in various studies in developed and emerging countries as well as in the Malaysian context. Managers have realized the importance of being actively involved in CSR practices and disclosure. The involvement in CSR for companies in developing countries is different compared to companies in developed countries, in terms of the socio-economic and cultural perspectives. In developing countries, CSR is less formalized and formal CSR is usually employed by the large companies and multinational companies with global brands and international status. Philanthropy is a favourite activity of companies involved in CSR and economic contribution is a common way for companies to be involved in CSR. While CSR practices are in its growing stage in Malaysia, several Malaysian companies have been recognized to be pro-active in this field. CSR is also becoming increasingly important for companies that operate globally.

Stakeholder theory approach is based on the view that the company has a social contract with the community, and provides the social information to the community in accordance with the contract. The theory is a well recognized and accepted by managers to explain the motivation of managers involved in CSR practices and disclosure. The theory is appropriate because managers' tasks include the monitoring and managing of the company's relationships with each stakeholder group, with a view of creating synergies among stakeholders and companies.

Due to intensifying pressures from stakeholders, a company should be active in socially responsible practices. Institutional investors, as well as ethical investing, have become the fastest growing sector funds on the market. Companies are being monitored to see if they are acting in socially responsible ways. Companies have to understand how institutional investors and ethical investors will react and make decisions when a company discloses their CSR activities.

The empirical studies on the relationship of CSR with CFP and IO have been conducted in some developed countries. The findings of previous studies in developed countries are mixed, including showing a positive relationship, a negative relationship and no relationship. It can be concluded that the majority of the findings show a positive relationship between CSR and CFP, as well as IO. However, such studies are very limited in developing countries, and particularly in Malaysia. Hence, by using CSRD as a proxy to measure CSR activities disclosed in companies annual reports, this study explores the relations hip between CSRD and CFP as well as IO in the Malaysian PLCs.

CHAPTER THREE
FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1. Introduction

This chapter presents the framework and hypotheses development regarding the relationship between CSR and CFP as well as IO in the Malaysian PLCs. Firstly, important studies on the relationship between CSR, CFP and IO for the Malaysian PLCs are discussed. This is followed by the construction of a conceptual framework and then by an elaboration of the research hypotheses in section 3.4. Lastly, Section 3.5 presents the chapter conclusion.

3.2. Relationship between CSR, CFP and IO in Malaysia

The emerging involvement of companies in the CSR activities has made the Malaysian PLCs to be more concerned and responsible to their stakeholders. This involvement relates to how companies' reputation influences stakeholder's perception, and it has enforced companies to not only consider the financial performance but also their environmental and social performance. This is often labeled as the triple bottom line benefits which is a general explanation for companies to redefine their activities in order to make them more attractive to investors, specifically for institutional investors and SRI. Hence, the majority of large companies have provided additional information concerning CSR activities by including some types of CSRD.

Several researchers have demonstrated why companies must or must not involve in socially responsible practices (Mittal, Sinha, and Singh, 2008). Advocates of CSR declare that CSR will lead to enhanced financial performance, and increased image of brand and reputation of the companies. CSR would also improve productivity and

quality, enhance loyalty of the consumers, sales and other advantages (Mahoney and Roberts, 2007; Brammer and Pavelin, 2004; Tsoutsoura, 2004; Margolis and Walsh, 2002). Adversaries of CSR reveal that it takes away precious times of managers and top executives of companies. Most studies report that the relationship between CSR activities and CFP is positive (Table 2.3 in Chapter 2).

Pava and Krausz (1997) observed that in making the business decision, the manager must try to measure both the financial impact of such decision in the short and long period. However, they did not explain that all the CSR activities must be appreciated with traditional cost-profit principle. Many researchers in CSR have paid attention on an effort to answer the research question whether socially responsible companies will attain higher, lower, or equal level of their CFP compared with companies which do not meet similar CSR criterion (Orlitzky, Schmidt and Rynes, 2003; McWilliams and Siegel 2000; Griffin and Mahon 1997). Possibly, companies are prepared to take the socially responsible practices when they assume that most public appreciate and at the same time the cost is not significant.

It is common now for major companies to be involved in socially responsible practices and there is not much difference between multi-national companies and Malaysian PLCs. Both have encountered pressures coming from various stakeholders such as workers, customers, suppliers, societies, government, NGOs, and institutional shareholders to be involved in CSR activities. Based on the economics point of views, companies would be anticipated to be involved in CSR activities if they believed that the advantages covered the related expenditures in the decision-making entity perspective (Paul and Seigel, 2006). In the Malaysian context, a number of studies on CSR have been conducted (see, Haniffa and Cooke, 2005; Abdul Hamid, 2004; Nik

Ahmad et al., 2003; Rashid and Ibrahim, 2002; Andrew et al., 1989; and Teoh and Thong, 1984). Some of the researchers revealed that the disclosure of CSR activities in the companies' annual reports is less compared to the level of participation specified by every company (Mohd Ghazali, 2007).

In this regard, most of prior studies about CSRD have been concerned with the classification and the extent of disclosure (for example see Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Williams and Pei, 1999; Kin, 1990). Other researchers focused on the reasons and motivation of why companies disclosed their CSR activities (for example, see Amran and Selvaraj, 2007; Rashid and Ibrahim, 2002), whereas, Haniffa and Cooke (2005) explored the impact of type of cultures and governance on CSRD, while Mohd Ghazali (2007) focused on the relationship between ownership structure and CSRD.

In Malaysia, even though the numbers of companies involved in CSR activities are high, they did not disclose fully CSR activities in their annual reports (Bursa Malaysia, 2007; Che Zurina et al., 2003; Rashid and Ibrahim, 2002; Williams and Pei, 1999; Teoh and Thong, 1984). Based on total assets and annual assets turnover, as well as based on the shares ownership, the big and foreign companies are proven to disclose more CSR activities information in their annual reports (Mohd Ghazali, 2007; Thompson and Zakaria, 2004). There are several reasons why the big companies have more often disclosed their CSR activities. The main reason is that the big companies are considered to have more resources to engage themselves actively in various CSR activities and disclosure. Most companies owned by foreign and institutional investors are also active in disclosing all of CSR activities in their annual reports. In this regard, the foreign companies have always become the subject of tight supervision by the

government. Furthermore, the disclosing of CSR activities information could eliminate the concern, the fear and criticism especially from secondary stakeholders, such as NGOs, especially the environmental activists and group of public where the companies are operating as they presumed companies are only utilizing resources of the country where the foreign companies operated (Mohd Ghazali, 2007).

Based on the above discussion, Malaysian companies need more comprehensive information about the disclosing of CSR activities because they have no obligation to do so. This is due to the fact that the disclosing of the CSR activities for the Malaysian PLCs is voluntary (Nik Ahmad et al., 2003). It also explains why the involvement of the companies towards CSRD in their annual reports is still low (Che Zurina et al., 2003). Some efforts have been taken by themselves to involve in CSRD. For example, the capital market authority, namely Bursa Malaysia has released CSR framework as a blue-print for the Malaysian PLCs which participate in CSR activities. Malaysia Environment and Social Reporting Awards (MESRA) organized by the Association of Chattered Certified Accountants (ACCA) Malaysia is also an effort to encourage the Malaysian PLCs to enhance their CSRD. The lower level of pressure from external stakeholders is also an important factor why the Malaysian PLCs is still less concerned to disclose their CSR activities in annual reports. The latest rules that all PLCs in Malaysia have to disclose the CSR activities in the annual reports were mentioned by the Prime Minister in the 2006 budget speech (Bursa Malaysia, 2007).

It has been reported that in Malaysia, even though the awareness of managers towards CSR is high, they are not complemented by activities and disclosures of their CSR activities in the annual reports (Abdul Hamid, 2004; Thompson and Zakaria, 2004; Tsang, 1998). CSR literature also only focuses on the extent, motivation and reasons

for disclosing CSR activities. This is lacking as to what is found in developed markets, particularly how CSR activities are related to companies' financial performance and recognized by stakeholder groups. In this case, the number of empirical research about these studies has significantly improved in the last decade (Margolis and Walsh, 2002). From the institutional investors' point of view there has been more attention on the approach of companies in handling their social issues and companies with an assessment of high social achievement, which is apparently more interesting for institutional investors (Mahoney and Roberts, 2007).

Investors are said to require social disclosure in companies' annual reports and this is supported by prior studies that there are higher demand on company for reporting about environmental protection, and product safety and quality. Most shareholders also demand for information about employee relation and community involvement activities (Epstein and Freedman, 1994). This is an opportunity for the Malaysian PLCs to be a good corporate citizen through their involvement in CSR practices and disclosures, and also an opportunity to attract a large amount of funds managed by institutional investors and SRI who are looking to invest in companies with good CSR practices.

3.3. Conceptual Framework

The preceding chapter discusses the relationship between CSR and CFP. Underpinning the study of the relationship between CSR and CFP is the stakeholder theory. Within this framework, a company must be able to accommodate the different demands of various stakeholders' interests. Therefore, a company should balance both the achievement of their financial performance as well as their capacity to adequately fulfil wider societal expectations. Involvement in CSR activities means a company's trust grows, reducing the transaction cost and certain risks. Certain dimensions of CSR may

improve the loyalty of the workers, thereby making it easy to recruit and maintain the finest employees, and, thus, reduce turnover (Greening and Turban, 2000). The enhancement in the relations of stakeholder could attract new customers and investment opportunities, so the institutional investor will be more interested to invest in a company that orients itself towards CSR (Teoh and Shiu, 1990; Graves and Waddock, 1994).

Scholars argue that the stakeholder theory has the potential to explain the relationship between CSR and CFP (e.g. Rowley and Berman, 2000; Mitchell et al., 1997; Clarkson, 1995). Stakeholders are in the strategic position to affect the CFP through withholding or providing effort, thereby the capacity of stakeholder affect the business via the stakeholders' power (Neville et al., 2006). The foundation of the assumption is that CSR affect CFP by improving the manner of the company's relationship with the relevant stakeholder groups. As discussed earlier that there are pressures of CSR as an element of a company's culture in its daily activities, creating a wealth of empirical research examining the relationship between CSR and CFP.

As mentioned in the previous chapter that in this study the involvement of companies in CSR activities are represented by CSRD which are published in companies' annual reports. Hence, Figure 3.1 presents a conceptual framework of the relationship between CSRD and CFP. The conceptual framework for CSRD proposed in this thesis comprises two categories: the overall of CSRD and the dimensions of CSRD. There are four subsets of the CSRD dimension, consisting of employee relations dimension, community involvement dimension, product dimension and environmental dimension.

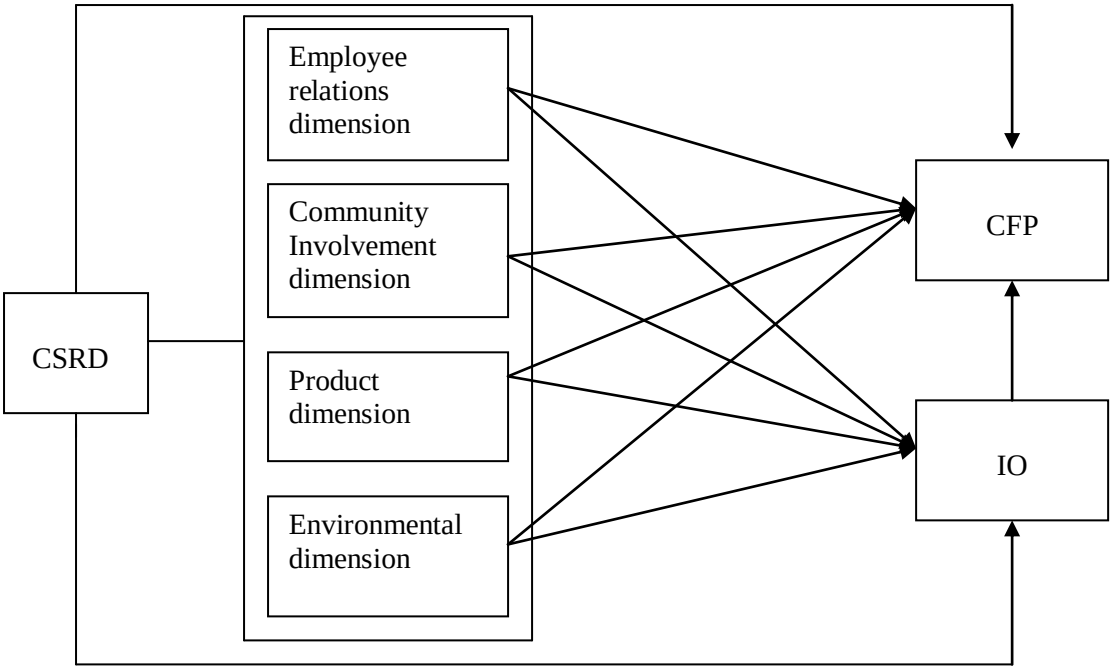

Figure 3.1
Conceptual Framework: Relationship between CSRD, CFP and IO

Two specification models are conducted, namely (1) CFP as a dependent variable and CSRD and a set of control variables as the independent variables; and (2) CFP as a dependent variable and the four dimensions of CSRD and a set of control variables as the independent variables.

The CSR activities of a company are aimed at satisfying the requirements of various stakeholders groups. According to Marom (2006), stakeholders' satisfaction can assist a company in various ways. For instance, if the customer feels satisfied they will buy more of the product and the service sold; if the workers are satisfied, it would lead to increasing their productivity, producing satisfaction in the investors, and further may cause the increase in the company's market value. The results of all these satisfactions contribute towards improved CFP. The rewards in the CSR sphere are similar to income in business activities. The income of business is derived from goods and

services produced, whereas, the rewards in the CSR domain are derived from social products (Marom, 2006). Hence, the conceptual framework in this study proposes to examine the relationship of CSR dimensions on the CFP.

Prior studies hypothesize and give rational theoretical justifications for negative, positive and neutral relationships between CSR and CFP. The conceptual explanation of these relationships are presented by Waddock and Graves (1997) and Preston and O'Bannon (1997). The rational for a negative relationship is supported by managerial opportunism hypothesis which proposes that when CFP is robust, managers reduced the social activities because they can increase the short-term profit and give extra bonus to workers (Preston and O'Bannon, 1997). However, if CFP is bad, the managers try to switch attention by spending on social programmes.

A neutral relationship is supported by the argument that the environment, wherever companies and community undertake their respective activities, is so complex that a simple, direct, relationship between CSR and CFP does not exist (Waddock and Graves, 1997). McWilliams and Siegel (2001) argue that there is no relationship between CSR and CFP based on the theory of supply and demand of the company. They assume that a shareholder's wealth is maximized when a company produces a level of profit-maximization, including producing social achievement.

The largest numbers of investigations show a positive relationship (Simpson and Kohers, 2002; Waddock and Graves, 1997; McGuire et al., 1988). There is no single established theoretical foundation with a clear empirical prediction appearing for a CSR and CFP relationship. Therefore, this study is similar to the theoretical and empirical

evidence of the majority of earlier studies predicting a directional positive relationship between CSR and CFP.

Figure 3.1 puts forward a relationship between CSRD and IO. Prior section explained that CSRD is used as a proxy to measure the CSR practices. Hence, two multiple regression models are conducted to examine the relationship between CSRD and IO, namely (1) IO as a dependent variable is explained by CSRD and a set of control variables as independent variables, and (2) IO as a dependent variable is explained by the dimensions of CSRD and a set of control variables as independent variables.

The viewpoint of large investors predicts a positive relationship between CSR and IO (Mahoney and Roberts, 2007). Institutional investors are also said to be risk-averse. Chaganti and Damanpour (1991) found a negative relationship between share ownership by institutional investors and companies' debt to total capital ratios. This supports the statement that institutional investors are risk-averse. As a result, the possibility arises that those institutional investors will also invest more heavily in companies that are actively involved in CSR when they believe that it will bring a positive effect to the level of the company's profitability and reduce investment risk.

Coffey and Fryxell (1991) did not find a significant relationship between IO and charitable giving. However, they found a positive significant relationship with the number of women on the board of directors. Graves and Waddock (1994), using the KLD index as a measure of social performance for U.S. companies, shows a positive significant impact on the number of shares owned by institutional investors and the company's CSR. Whereas, Johnson and Greening (1999), using the KLD index, found that pension fund equity has a positive association with employee and product

dimensions of social performance but mutual and investment bank funds do not show a direct relationship. Bushee and Noe (2000) reported that IO is positively linked with the position of company disclosure ranking. The conclusion is that it is the viewpoint of institutional investors' to search out and invest in more socially responsible companies (Mahoney and Roberts, 2007).

This thesis is supportive of the earlier research statements by Mahoney and Roberts (2007); Graves and Waddock (1994) which state that institutional investors strategically invest their money in companies with a higher level of CSR activities and by doing so achieve higher level of financial performance. Institutional investors pay special attention to how companies arrange the dimension of this social action and do not impact or punish companies that allocate resources of production for CSR activities. Hence, it is clear that improving CSR activities with an increase in the percentage of shares owned by institutional investors, has a positive relationship on CFP.

Analysis of the relationship between CSR and each dimension of CSR on CFP, as well as IO, are elaborated through the following hypotheses:

3.4. Development of the Hypotheses

This study identifies three main and eight subsidiary hypotheses in order to match the research objectives. The first section develops five hypotheses for CSRD and the dimensions of CSRD on CFP. The subsequent section constructs five hypotheses for CSRD and the dimensions of CSRD on IO, followed by the next section which proposes the hypothesis for CSRD and IO on CFP.

It should be emphasized that in this study, CSRD is considered as a proxy of CSR. Thus, studies of the relationship of CSRD and CFP are referred to in many cases for the hypothesis development.

3.4.1. Hypotheses on CSRD, Dimensions of CSRD and CFP

Although findings from prior studies on the relationship between CSR and CFP are mixed, with several conclusions showing negative relationships and other results showing neutral relationships, a large number of studies show positive relationships (Griffin and Mahon, 1997). For example, Roman et al. (1999) review earlier studies of the link between CSR and CFP. Their analysis of 50 articles found that the majority of their reviews show a positive relationship between CSR and CFP. Waddock and Graves (1997) examine this link simultaneously and conclude that apparently social activities improve the financial performance, and that a positive financial performance leads to an improvement in social activities.

The theoretical framework for CSRD proposes five hypotheses, namely CSRD, and four dimensions of CSRD, employment relations disclosure, community involvement disclosure, product disclosure, and environmental disclosure. Therefore, the hypotheses in this section employ both an aggregate CSRD and also each of the four dimensions of CSRD.

3.4.1.1. Hypothesis on Relationship between CSRD and CFP

There is evidence that the link between CSR and CFP is definitely mixed. According to prior studies, some results show negative relationships between CSR and CFP (Moore, 2001; Vance, 1975), while others show a neutral or no relationship (Mahoney and Roberts, 2007; McWilliams and Siegel, 2000; Patten, 1990; Alexander and

Buchholz, 1978). Most of the prior studies find positive relationships between CSR and CFP (Simpson and Kohers, 2002; Roman et al., 1999; Waddock and Graves, 1997; Roberts, 19992; McGuire et al., 1988; Cochran and Wood, 1984; Anderson and Frankle, 1980; Belkaoui, 1976; Bowman and Haire, 1975). Margolis and Walsh (2003) and Griffin and Mahon (1997) state inconsistent results of the relationship between CSR-CFP depending on which measures of CFP are employed (see Freeman, 1994; Griffin and Mahon, 1997; Orlitzky et al., 2003).

Largely, the empirical studies explore the financial advantages of social responsibility or whether the superior reputation for social responsibility improves financial performance. Several researchers note that companies that have a superior reputation for acting socially responsible may survive crises and may have fewer economic losses than companies lacking superior reputation (Schnietz and Epstein, 2004). Some researchers assert that CSR conflicts with CFP, whereas others declare that CSR matches the aim of economics. It is important to stress the benefits of CSR as insurance against other negative effects, otherwise it would cause damage to financial performance (Peloza, 2006).

This study adopts the perspective that investments in CSR have a positive association with CFP. There is pressure by various stakeholder groups on companies to pay attention to their CSR involvement. Some pressure comes from certain stakeholders, such as government and foreign business partners (Amran and Selvaraj, 2007; 2008). Empirical studies also exhibit some external pressures influenced by business society, commitment of management and media, as well as institutional investors (Johnson and Greening, 1999; Weaver, Trevino and Cochran, 1999). Involvement in CSR

encourages the strengthening of name recognition, customer loyalty (Rosen et al., 1991), and market position (Fombrun and Shanley, 1990).

This perspective is consistent with recent research documenting a positive relationship between CSR and CFP (Tsoutsoura, 2004; Simpson and Kohers, 2002; Subroto, 2002; Orlitzky, 2001; Ruf et al., 2001; Roman et al., 1999; Waddock and Graves, 1997). If a positive relationship is established, then management may recommend activities for improvement or investigate the reason causing of the relationship (Cochran and Wood, 1984). Thus, CSRD as a proxy for the measurement of CSR in the Malaysian PLCs leads to the following hypothesis:

H1: *There is a positive relationship between CSRD and CFP.*

3.4.1.2. Hypothesis on Relationship Between Employee Relations and CFP

A company that has a solid CSR commitment can increase the capacity to attract and maintain its workers, which plays an important role in reducing turnover, recruiting and the cost of training. Further, workers often judge a company's performance and take note if their personal values are compatible with the company in which they work (Turban and Greening, 1997). There are many known cases where workers are asked, under supervisory pressure, to ignore written or moral regulations to attain greater profits. Practices like this will create a culture shock in the workplace and damage employees' belief, loyalty, and commitment to the company (Gittell, Nordenflycht, and Kochan, 2004; Tsoutsoura, 2004).

Improving working conditions and employee practices increases productivity and reduces the rate of mistakes. Standard control in production facilities all over the world guarantees that all employees have ethical working conditions and earn reasonable

salaries. These practices need financing and the productivity improvement of employees, together with the increase of the quality of products, causes a positive cash flow, which covers the associated costs. In this respect, a company may actually benefit from socially responsible actions in terms of employee morale and productivity (Tsoutsoura, 2004; Soloman and Hansen, 1985; Parket and Eibert, 1975).

Therefore, improving worker satisfaction levels and retaining employees creates the optimal contribution to the aim of companies and has significant implications for the human area of CSR. The majority of results from empirical studies demonstrate a positive relationship between human relations and CFP (Gittell et al., 2004; Tsoutsoura, 2004; Delaney and Huselid, 1996; Huselid, 1995). Thus, based on the discussion above, this study proposes the following hypothesis:

H2: *There is a positive relationship between employee relations dimension and CFP.*

3.4.1.3. Hypothesis on Relationship between Community Involvement and CFP

In the highly competitive atmosphere of business, growth, stability, existence of economics and social orientation strongly depend on a company's capacity to behave socially responsible towards their communities (Chahal and Sharma, 2006). If companies allocate donations, they hand over some of the funds that rightly belong to the shareholders. Academicians argue that when the community permits companies to continue their operations, the companies have an ethical and moral obligation to share the pleasure with their community. This reality is the reason for the variation in philanthropic activities among companies. Several companies donate in the form of cash contributions, and others in products and services.

Researchers and theoreticians do not concur as to whether being honourable does well or whether doing well allows being honourable (Seifert, Morris and Bartkus, 2004). According to Stroup, Newbert and Anderson (1987), philanthropy and social responsiveness is conducted by companies voluntarily, using the company's resources and is always likely to reduce the profits of the company. Several writers have proven that doing good leads to doing well and that the effective management of social responsibilities and stakeholders increases a company's profit (Waddock and Graves, 1997; Ullmann, 1985). The most recent studies indicate that the philanthropic activities of companies improve the benefits to society, while the company owner does not lose when it contributes to charitable activities.

CSR is often translated widely to take in various levels of positive and negative activities of a company and may include various things, for example, employee relations, obedience to environmental standards and human rights problems (Peloza, 2006). However, the part typically played by CSR is corporate financing and vigorous support for activities related to community involvement such as donations and for social purposes. This is acceptable because companies involvement in social activities often bring financial returns as well as social returns and also utilize them to identify the social agenda of the company. Hence, on the basis of the discussion above, this study proposes the following hypothesis:

H3: *There is a positive relationship between community involvement dimension and CFP.*

3.4.1.4. Hypothesis on Relationship between Product Dimension and CFP

A study by Pauwels, Silva-Risso, Srinivasan, and Hanssens, (2004) discerns that product information has a positive impact in both the short-term and the long-term

financial performance and that the value of the company is sustained longer. Other specific results by Dunk (2005) reveal that the information of product innovation influences financial performance.

Further, the recent research clarifies that attention to a new product and product development with the technological and marketing capacity shows a significant influence on financial performance (Matsui, Filippini, Kitanaka, and Sato, 2007). However, a study by Mahoney and Roberts (2007) found a positive but not significant impact of product dimension on the financial performance of Canadian listed companies. In this regard, a crucial question remains as to the measures that should be used to capture the various criteria. Hence, on the basis of the discussion above, this study proposes the following hypothesis:

H4: *There is a positive relationship between product dimension and CFP.*

3.4.1.5. Hypothesis on Relationship between Environmental Dimension and CFP

The research to establish the connection between environmental and financial performance is not only the key to engagement in the business and finance sector in sustainability, it also plays an important role in helping to identify areas for potential shifts in government policy. For example, business value research could indicate where there is no sustainability value from better environmental management, thereby drawing attention to areas where governmental intervention may be required to adjust economic and regulatory signals (Moffat and Auer, 2006). The research to show the relationship between environmental and financial performance is not only key to involving the business and finance sector continuously but can also play an important role in helping to know the field resulting from shifts in government policy (Moffat and Auer, 2006).

Previous research on the relationship between disclosures of environmental and financial performance utilizes measurements based on both the financial performance of the market and on accounting. Freedman and Jaggi (1988) test the association of their measurement on disclosing of the environment against six ratios of accounting which are used to measure economic performance. They found no statistical evidence to refuse the null hypothesis that there is no relationship. Likewise, more recently, Richardson and Welker (2001) observe that social and environmental disclosure behave differently from general financial disclosure in the tests of association with the company's cost of capital. They found that the relationship between social disclosing and the capital cost to be significantly positive. Nevertheless, Shane and Spicer (1983) using the event study method document a negative reaction of the market for two days preceding the issue of the environment reports.

The conclusion of the researchers is that the relationship that has been investigated between the disclosing of environment and financial performance did not produce consistent results. There are several studies that provide proof of negative relations (e.g. Jaggi and Freedman, 1992; Chen and Metcalf, 1980) and neutral relations (Elsayed and Paton, 2004) between the disclosing of environment and financial performance. Nevertheless, most studies report positive relations between the social business/environmental responsibility and the financial performance (e.g. Mahoney and Roberts, 2007; Salama, 2004; Griffin and Mahon, 1997; Pava and Krausz, 1996; Ullmann, 1985). Environmental performance is a type of corporate investment that changes to enhance a company's financial performance in the future (Jones, 1995). So, the basis of the discussion above, this study proposes the following hypothesis:

H5: *There is a positive relationship between environment dimension and CFP.*

3.4.2. Hypotheses on Relationship between CSRD, Dimensions of CSRD and IO

Similar to the framework for the hypotheses on the relationship between CSRD and CFP, this section also explores five antecedents, namely; CSRD on IO; employee relations dimension on IO; community involvement dimension on IO; product dimension on IO; and environment dimension on IO. Hence, the hypotheses in this study also employ both aggregated CSRD and separate measures consisting of four dimensions of CSRD.

3.4.2.1. Hypothesis on Relationship between CSRD and IO

It appears that social information should theoretically be of use to various stakeholders. A number of empirical studies examine whether social disclosures are demanded or useful. Hence, a company has an obligation to disclose information fully and literally to their owners. Further, from the responsibility point of view, the organization has a moral obligation to provide a report to the community about the allocation of the resources of production entrusted to it (Gray, Owen, and Maunders, 1991). Theoretically, it is apparent that social information should be useful to various stakeholders. Also, several empirical studies observe whether social disclosing is requested or helpful.

Many individual and social investors and several institutional funds from foreign countries have integrated socially responsible principles into their policies of investment. Therefore, according to Boutin-Dufresne and Savaria (2004), it is clear that most investors, given the choice between two investment opportunities with identical risk-adjusted prospects, will more likely invest in companies that contribute to increasing the average CSR level.

Empirical studies show a positive and significant relationship between social performance and shares held by institutional investors (Graves and Waddock, 1994). Cox et al. (2004) find that corporate social performance is positively related to long-term institutional investment. Findings of a recent study by Mahoney and Roberts (2007) also report a significant relationship between a company's composite social performance and the number of institutions investing in its shares. In this study, CSRD is as a proxy to measurement of CSR for the Malaysian PLCs. This leads to the following hypothesis:

H6: *There is a positive relationship between CSRD and IO.*

3.4.2.2. Hypothesis on Relationship between Employee Relations and IO

Several institutional investors such as socially responsible investors (SRIs) confirm that they select a company to invest in that which is consistent with their personal values (Sauer, 1997). As socially responsible investors become aware of the companies' non-responsiveness to social concerns, they can place pressure on those companies to change. A clear message from a survey of the US institutional investors (Taub, 2001) is that most of the concerns of institutional investors relate to corporate governance and disclosing issues. More than 76 percent of 89 participants in his survey find that institutional investors place more pressure on companies to improve business governance. Some of the highest concerns of the respondents are shared option grants and pension fund reporting. Indeed, more than 70 percent of institutional investors relate unhappiness with the number of escalating share options (Taub, 2001).

Superior corporate citizenship may create strong loyalty to a company, and, as a result, a responsible company may experience improvement in product sales, developing good employee relations, as well as presenting an optimum position to attract and maintain

good employees. The supporters of social responsibility investing suggest that employee loyalty is advantageous for a company as it improves productivity, innovation, lowers production cost, thereby increasing profitability (McGuire et al., 1988).

The empirical research by Cox et al. (2004) found a positive and significant impact of employee relations on long-term institutional investors, whereas Mahoney and Roberts (2007) reveal a negative partially significant effect on employee relations and the number of IO. Hence, this leads to the hypothesis which in developed as follows:
H7: *There is a positive relationship between employee relations dimension and IO.*

3.4.2.3. Hypothesis on Relationship between Community Involvement and IO

Businesses face increasing responsibilities and the improvement of social expectations concerning what a business should do for a community. At the same time, a company also values the beliefs of stakeholders and wants more interaction with them (Kanter, 1999). For example, the improvement of a company's performance increasingly depends on its capacity to anticipate and adjust to competition and rapid technological transformation, as well as to changes in the attitudes of consumers, workers, and society at large.

The external factors are increased by the pressure for the introduction of a social programme. This incentive is connected with the re-assessment of the sources of the competitive advantage as well as to the attitude of employees and managers' values. Kanter (1999) noticed that a vital type of benefit that companies can obtain from community involvement programmes is that society can be utilized as a learning laboratory for its innovations. Besides, being attentive to financial performance,

product quality, and the environment, institutional investors may also be pondering on company's contributions to local communities and their relationships with women, minorities, and employees (Schwab and Thomas, 1998).

Tilson and Vance (1985) depict corporate giving as a method for companies to extend a competitive edge through improving their public image and producing goodwill. A study by Fry, Keim, and Meiners (1982) proves that charitable contributions are profit motivated expenditure. In this way, it may signal the existence of an enlightened management, but it may also alert the investor of economic concerns. This proposes that the viscosity of CSR and economic performance is more chaotic. Clearly, there is potential for compatibility, although the search for empirical proof of charitable contributions creating economic returns has often been inspected; regrettably it has been without much success (Coffey and Fryxell, 1991).

A recent empirical study by Mahoney and Roberts (2007) reveal that there is positive but not significant impact of community involvement on the percentage of shares ownership of institutional investors. However, a study by Cox et al. (2004) found a positive partially significant relationship between community involvement activities and long-term investors. This leads to the following hypothesis:

H8: *There is a positive relationship between community involvement dimension and IO.*

3.4.2.4. Hypothesis on Relationship between Product Dimension and IO

Companies have the incentive and tools to determine the information that prospective customers for their products may find useful. Benston (1997) observes that if investors cannot easily consider the products, it is worth less to them. Consequently, the products have to sell at a lower price to compete with alternative investments that more efficient.

On the other hand, investors will not pay compensation for excessive information costs provided by companies.

Although a company's product of lower quality tend to lead astray, careless information to investors about the deficiencies of their products is likely to be unlawful. Again, rivals can take advantage by showing the deficiencies of such products. It is important for a company aspiring to stay in business to show its reputation for honesty, service and expertise (Kerr, 1997).

Empirical testing by Mahoney and Roberts (2007) and Teoh and Shiu (1990) reveal that the product dimension of CSR relates to shares owned by IO. Their conclusion proposes that institutional investors pay special attention to how companies arrange this CSR dimension. Hence, the following hypothesis is formulated:

H9: *There is a positive relationship between product dimension and IO.*

3.4.2.5. Hypothesis on Relationship between Environmental Dimension and IO

According to Turban and Greening (1977), institutional investors notice the long-term benefits from a socially responsible company through maintaining the quality of products, more attention to the environment, community and their employees. Spicer (1978) argues that institutional investors assume companies that are less socially responsible and poor in their environmental performance signify higher risks. Such risks may include costly sanctions from regulatory action, decisions of the court and consumer retaliation.

The considerable concerns about sustainability of huge US pension funds provide a guide for managers to take active awareness in corporate governance, including the

governance of the environment (Repetto, 2005). The researcher notices that in the UK, pension funds have been petitioned to release how they respond to the social and environment problems in their investment portfolio. The environmental and social consideration is also included in decisions for investment by big pension funds in other countries.

In choosing the socially responsible companies among those which are similar, the investors may achieve the same returns with fewer risks. They believe that both risks and returns, although high social responsibility may reduce the risk, provide an incentive for a company's managers to involve in CSR practices (Mahoney and Roberts, 2007).

The empirical testing by Cox et al. (2004) found that the environmental dimension and long-term investors is positive and significantly related, whereas contrary results by Mahoney and Roberts (2007) report a negative significant impact of the environmental dimension on the number of institutional owners, as well as the percentage of IO. This leads to the following hypothesis:

H10: *There is a positive relationship between environment dimension and IO.*

3.4.3. Hypothesis on Relationship between CSR, IO and CFP

The underpinning interest in the relationship of CSR and CFP is the stakeholder theory. In this theory, a company must be able to accommodate the different demands of various stakeholder groups. Therefore, a company should not only consider financial performance, but also the capacity to adequately respond to broader societal expectations. Previous research reveals that institutional investors are favourably disposed towards companies that are more socially responsible when information on

social performance is available (Waddock and Graves, 1997; Graves and Waddock, 1994; Teoh and Shiu, 1990). Hence, good practices in CSR are a warranty for institutional investors to hold shares of companies in the long-term.

Moreover, other studies argue that social and financial performance are possibly positively related in the long run because enhanced social performance increases a company's competitiveness (Hart, 1995; Waddock and Graves, 1997; Cochran and Wood, 1984), lowers the cost of transaction (Ruf et al., 2001), increase quality of workers and motivation (Turban and Greening, 1997), and enhance customer loyalty (McGuire et al., 1988). At the same time, the lower level of social performance may increase the financial risk of a company (Ullmann, 1985) by signalling the low skill of management (Alexander and Bucholtz, 1978; Spicer, 1978), uncertainty, government regulation and fines (McGuire et al., 1988), increased uncertainty in terms of the level and diversity of future cash flow (Richardson et al., 1999). Boutin-Dufresne and Savaria (2004) suggest that adoption of socially responsible principles could help diminish the risk of businesses.

Based on the above discussion this study extends the exploration of the relationship of both CSRD and IO on CFP. It leads to the following hypothesis:

H11*: CSRD and IO are positively related to CFP.*

All of eleven hypothesis statements in this study are presented in Table 3.1.

Table 3.1.
Summary of the Hypothesis Statements

Hypothesis	Statement of hypothesis
H1	*There is a positive relationship between CSRD and CFP*
H2	*There is a positive relationship between employee relations dimension and CFP*
H3	*There is a positive relationship between community involvement dimension and CFP*
H4	*There is a positive relationship between product dimension and CFP*
H5	*There is a positive relationship between environment dimension and CFP*
H6	*There is a positive relationship between CSRD and IO.*
H7	*There is a positive relationship between employee relations dimension and IO*
H8	*There is a positive relationship between community involvement dimension and IO*
H9	*There is a positive relationship between product dimension and IO*
H10	*There is a positive relationship between environment dimension and IO*
H1	*CSRD and IO are positively related to CFP*

3.5. Summary

This chapter reviews the extent of the relationships between CSR and CFP as well as IO in the Malaysian PLCs. The intense pressure from stakeholders in the business arena has become a driving factor for companies to be more socially responsible. The stakeholder theory is used as a guideline in this study. In this theory, a company has a social contract with the community that is involved with the company and therefore has a social obligation to disclose information. A theoretical framework and a number of hypothesis statements have been constructed for the analysis of the relationship between CSR and CFP as well as IO in the Malaysian PLCs.

CHAPTER FOUR
RESEARCH DESIGN AND METHODOLOGY

4.1. Introduction.

The purpose of this chapter is to report the research method adopted in this study. The research approach employed in this study is presented in section 4.2, followed by the research design in section 4.3. Data gathering, explaining the procedures of data collection as sources of data and sample size that are used in this study are presented in section 4.4. Regression analyses as the main tool to ensure the research objectives are constructed and presented in section 4.5. Measurements of dependent variables and independent variables are developed first and the descriptions of the variables used in this study are also explained. As mentioned in prior section, in this thesis CSRD is taken as the instrument and tool for the measurement of CSR activities in the Malaysian PLCs. This section also explains in detail the coefficients of the relationships between CSRD along with the control variables on CFP and IO as predictor variables. This chapter proposes testing for violation of assumptions on the classical regression linear model which is presented in section 4.6. Estimation process for the hypotheses testing of the relationship between CSR, CFP and IO is presented in section 4.7. It begins with the construction of the equation regression formula for the ordinary least squares (OLS) model and generalized least squares (GLS) with fixed effects and random effects model. It ends with section 4.8, which presents a brief summary of the chapter.

4.2. Research Approach

This study utilizes the quantitative research approach. Naturally, quantitative research methods are employed within the positivist research paradigm, and qualitative methods

are employed within the interpretive paradigm (Cavana, Delahaye and Sekaran, 2001). Quantitative research is the systematic scientific examination of the quantitative phenomena and properties, and their links. The aim of quantitative research is to create and utilize mathematical models, theories and or hypotheses pertaining to natural phenomenon (Cavana et al., 2001). The researchers chooses one or several data collection techniques, allowing for its overall suitability to the research, along with other practical factors, such as expected quality of the collected data, predicted nonresponsive rates, expected level of measure errors, data collection period and estimated costs (Lyberg and Kasprzyk, 1991).

The most accepted data collection for the quantitative research approach techniques are surveys, secondary data sources, and interviews. Although there are various techniques for investigating undefined research problems, secondary data analysis is utilized in this study. Secondary data analysis is defined as "preliminary review of data collected for another purpose to clarify issues in the early stages of a research effort" (Zikmund, 2003:115).

Two research approaches are employed to analyse the secondary data, namely qualitative and quantitative data analysis. Most research on CSRD, especially in the emerging markets, used the content analysis approach to analyse the data, as it reflects the managerial perception of their social responsibility (Cochran and Wood, 1984). Other researchers, such as Abbort and Monsen (1979:504), "defined content analysis as a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity". In this study the content analysis is employed to find the value of CSRD and the dimension of CSRD variables (detailed procedure is elaborated

in section 4.5.1.3). The main tool of secondary data analysis is the use of multiple regression analysis through ordinary least squares (OLS) and generalized least squares (GLS) techniques. Detailed discussion is presented in section 4.5 and 4.7.

4.3. Research Design

A research design is an explanation of methods and procedures for data collection, data analysis and reporting. Figure 4.1 presents the flowchart of the process of the research. The research process begins with the statement of problem. Exploratory research is usually conducted during the initial stage of the research process. The purpose of the exploratory research process is to progressively narrow the scope of the research topic and to transform discovered problems into defined ones, incorporating specific research objectives. The explanatory research technique in this study is conducted through secondary data analysis.

The research design addresses basic questions to ensure that the research is conducted within the accepted parameters of the particular research method (Cavana et al., 2001). Secondary data study is selected in this research and the availability of data sources, as well as the cost of obtaining the data, determines the selected research method. Purposive sampling is selected as a non probability sampling technique in which some precise characteristics required of the sample member are made. It is based on the judgment of the individual experience of the researcher (Zikmund, 2003).

The next stage is data collection. The main source of secondary data in this study is collected through companies' annual reports. Various types of data have been selected, namely, financial data analysis such as balance sheet and income statement as well as

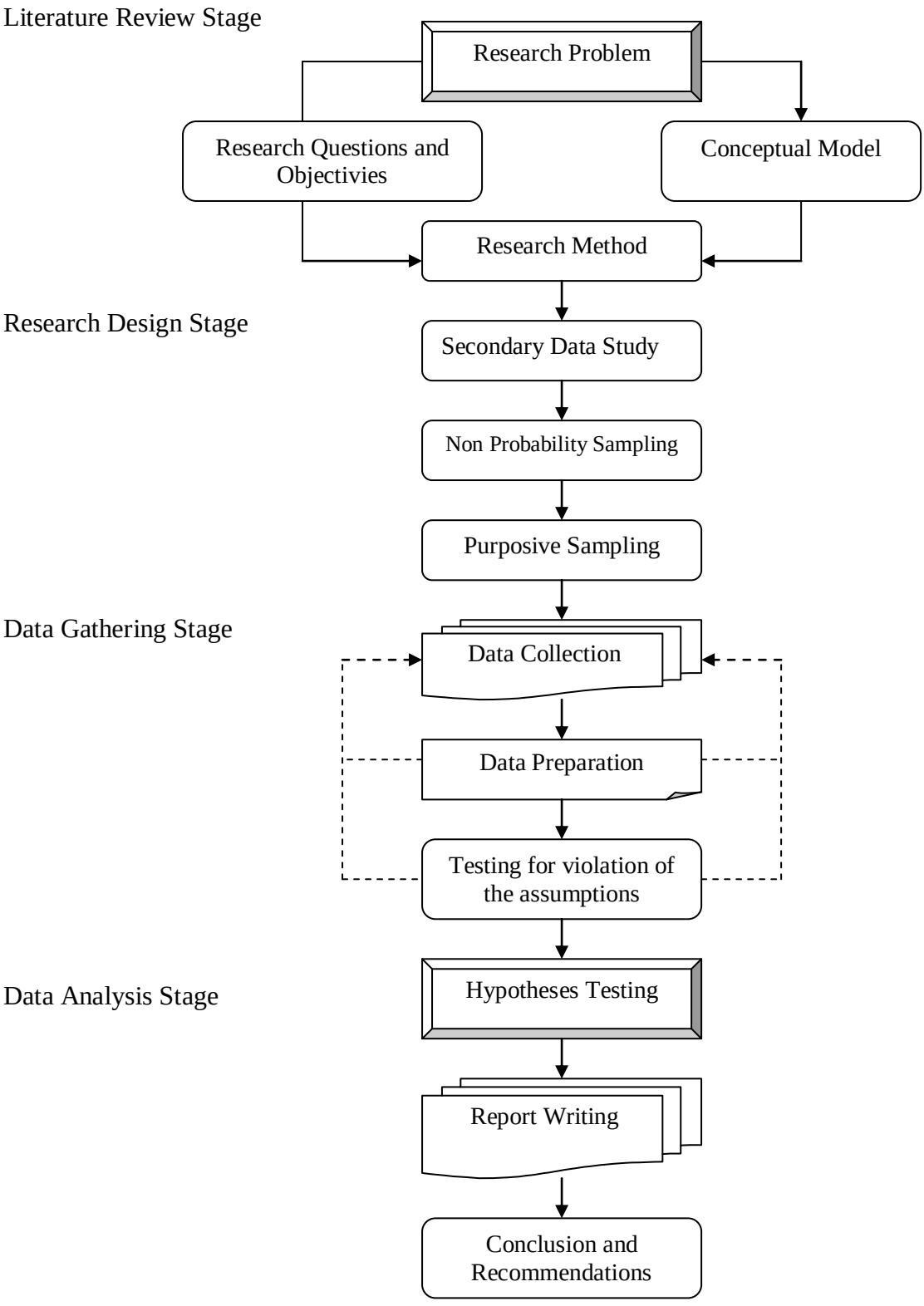

Figure 4.1 Flowchart of the Research Process

cash flow analysis, shareholding statistics and reports on CSR activities, which are disclosed in companies' annual reports. Other sources of secondary data are collected from Bursa Malaysia, the Central Bank of Malaysia and Hydra Database. After data collection has been completed this research continues with its data preparation by classifying, recording, calculating, and tabulating the data. Further, testing for the assumption of regression linear is made. If the testing results fail to fulfil these assumptions it goes back to previous procedures or continues to go the next stage which employs appropriate advanced techniques. The last stage of the research process is data analysis and hypothesis testing.

4.4. Sample Size and Data Gathering

An important stage of the research process is deciding upon both the sampling design and the sample size of the research. Sampling design and sample size are vital to set up the sample for the generalization of the conclusion (Casava et al., 2001). There are various reasons influencing the choice of the sample size of the research as follows: "(1) the extent of precision desired (the confidence interval); (2) the acceptable risk in predicting that level of precision (confidence level); (3) the amount of variability in the population itself; (4) the cost and time constraints; and in some cases, (5) the size of the population itself" (Casava et al., 2001: 280).

As mentioned above, the sample size is important for the generalization of results. As the number of the population in this study is known, the decision concerning the sample size is referred to Krejcie and Morgan (1970) and Bartlett, Kotrlik and Higgins (2001) who developed a table for decisions concerning sample size for a given number of population. For instance, Krejcie and Morgan (1970) recommended that if the population is 500, 1,000, 10,000 or 50,000, the sample size should be 217, 278, 370 or

381, respectively. Whereas Bartlett et al. (2001), who developed a sample size table for a given population size for continuous data, suggested that if the population is 500, 700, 900 or 1,500, with a margin error of 0.03 and alpha of 0.01, then the sample size should be 147, 161, 170 or 183, respectively. Thus, in reference to this explanation the sample size in this study is the 200 biggest companies selected from 474 companies registered on the main board of Bursa Malaysia over the period 1999 to 2005. The selection is based on their market capitalisation ranking, which is taken from the Investors' Digest[24], published by the Kuala Lumpur Stock Exchange (KLSE) and companies' annual reports. This selection is consistent with prior studies on the disclosing of CSR activities that utilized market capitalization (Thompson and Zakaria, 2004; Guthrie and Parker, 1990).

For example, Thompson and Zakaria (2004) reported that 209 (81.30%) of 257 PLCs in their sample size for the year 2000, made some types of CSRD. Kin (1990) revealed that only 66 percent of 100 companies in his sample disclosed their CSR activities. Whereas, Nik Ahmad and Sulaiman (2004), in a more specific study of an environmental dimension, reported that only 38 (27.54%) of 138 PLCs in the year 2000 made some environment disclosures. The latest study by Sumiani et al. (2007) reveals that 36 (72 percent) out of 50 PLCs in Bursa Malaysia disclose some kind of environmental information in their annual reports. The results of prior studies reveal that there are no consistent findings amongst researchers who conduct similar studies. The disclosure level of CSR activities seems to vary over time. Hence, it can be

[24] Investor Digest published by January 2000, 2001, 2002, 2003, 2004; and Companies' Annual Reports years 2004 and 2005.

concluded that the large companies tend to make voluntary disclosures of their CSR activities than the small companies (Brammer and Pavelin, 2004).

Table 4.1 presents the market capitalization values for each sample of 200 PLCs on Bursa Malaysia. These 200 companies represent around 70 percent of the market capitalization value of Bursa Malaysia as well as representing the largest companies that are registered on Bursa Malaysia. According to these facts, utilizing the sample size based on the highest market capitalization is appropriate. Besides, larger companies have greater responsibilities (Gardiner et al., 2003). A larger proportion of large and medium-sized companies also disclose more CSR activities compared to the small companies (Adam et al., 1998; Tsang, 1998). Hence, the big companies are usually more active in their responsibilities to society and environmental issues (Gardiner et al., 2003).

There is a variation of medium used for disclosing CSR activities of companies. Jenkins and Yakovlena (2005) recorded that various sources are used such as: annual reports, supplements to the annual reports, advertisements or articles published detailing companies' activities, community reports, environment reports, booklets or leaflets to address the social activities of the company, compact disk reports, labelling of products, video tapes, websites, and press releases.

In this study, the main information to consider the disclosing of CSR activities are companies' annual reports that are published by companies registered on Bursa Malaysia. This is because the annual reports are the most reported and publicized by companies (Jenkins and Yakovlena, 2005; Tilt, 1994). All of PLCs in Malaysia have to publish their annual reports. The focus of the analysis on the annual report of the

Table 4.1
Market Capitalization of 200 PLCs in Main Board of Bursa Malaysia
(RM1,000)

Code	Company Name	Industry	1999	2000	2001	2002	2003	2004	2005
TELKOM	Telekom Malaysia Berhad	ts	44,946,735.00	34,883,912.00	32,353,103.00	25,057,489.00	27,932,100.00	3,927,509.00	32,400,094.00
MAYBANK	Malayan Bank Berhad	f	31,370,207.00	31,702,255.00	29,390,084.00	26,286,073.00	34,741,650.00	42,482,030.00	41,346,079.00
TENAGA	Tenaga Nasional Berhad	ts	30,461,614.00	36,033,408.00	33,243,338.00	29,565,520.00	29,721,128.00	34,627,196.00	32,001,691.00
PETGAS	Petronas Gas Berhad	ip	16,209,738.00	12,762,821.00	14,840,490.00	13,554,314.00	14,939,426.00	3,526,762.00	18,402,208.00
MISC	MISC Berhad	TS	12,275,431.00	12,703,211.00	13,874,957.00	12,768,308.00	21,128,621.00	38,872,192.00	42,759,411.00
BJCAP	Berjaya Capital Berhad	f	22,531,978.00	496,864.40	332,192.30	369,102.50	476,994.00	5,167,435.00	5,366,183.00
PBBANK	Public Bank Berhad	f	12,213,513.00	10,803,342.00	9,457,320.00	10,966,229.00	18,615,179.00	23,114,689.00	21,593,660.00
RESORT	Resorts World Berhad	ts	11,901,089.00	6,605,652.00	6,714,834.00	10,208,732.00	11,027,614.00	10,918,450.00	12,239,819.00
COMMER	Commerce Asset Holding Berhad	f	11,248,236.00	9,643,922.00	8,766,294.00	8,379,580.00	10,764,945.00	12,195,040.00	n/a
SIME	Sime Darby Berhad	ts	11,211,127.00	11,071,570.00	11,397,204.00	11,537,590.00	12,102,558.00	14,147,838.00	14,739,883.00
GTING	Genting Berhad	ts	9,508,577.00	6,620,787.00	7,395,560.00	9,438,143.00	11,692,027.00	13,385,899.00	15,095,218.00
BAT	British American Tobacco (M) Berhad	cp	8,280,370.00	9,993,550.00	10,564,610.00	10,136,315.00	12,420,555.00	13,062,998.00	11,492,583.00
YTL	YTL Corporation Berhad	cn	7,351,512.00	6,431,152.00	155,034.70	4,659,692.00	6,370,212.00	7,427,389.00	7,573,909.00
RHB	RHB Capital Berhad	f	7,184,464.00	4,431,027.00	4,212,211.00	2,625,794.00	3,792,813.00	4,266,932.00	4,029,880.00
PACMAS	PacificMas Berhad	f	5,444,433.00	4,035,447.00	577,959.70	478,783.20	949,016.70	1,196,951.00	1,051,607.00
MPI	Malaysian Pacific Industries Berhad	tech	5,135,558.00	3,274,197.00	3,295,185.00	2,917,393.00	3,568,035.00	2,983,770.00	1,979,234.00
BJTTO	Berjaya Sports Toto Berhad	ts	4,721,216.00	2,636,962.00	3,541,154.00	2,355,858.00	3,306,927.00	3,986,806.00	5,639,106.00
AMMB	AMMB Holdings Berhad	f	4,390,532.00	1,521,804.00	3,138,534.00	3,806,000.00	5,652,662.00	535,898.40	5,049,366.00
MAGNUM	Magnum Corporation Berhad	ts	4,265,635.00	2,192,940.00	3,234,812.00	3,519,769.00	4,331,604.00	3,792,452.00	2,995,217.00
PROTON	Perusahaan Otomobil Nasional Berhad	cp	4,016,098.00	2,529,057.00	4,368,864.00	4,832,898.00	4,640,850.00	n/a	n/a
NESTLE	Nestle Malaysia Berhad	cp	3,845,800.00	4,924,500.00	4,807,250.00	4,690,000.00	5,112,100.00	5,416,950.00	5,698,350.00
KLK	Kuala Lumpur Kepong Berhad	pl	3,728,114.00	3,224,204.00	3,763,938.00	4,601,851.00	4,743,446.00	4,898,841.00	5,963,807.00
MRCB	Malaysian Resources Corporation Bhd	ts	3,630,691.00	1,946,302.00	1,816,381.00	1,135,238.00	699,049.30	157,364.10	414,820.40
GHOPE	Golden Hope Plantations Berhad	pl	3,436,657.00	3,085,691.00	3,657,872.00	3,247,228.00	3,681,448.00	4,121,402.00	5,665,486.00
TANJONG	Tanjong Public Limited Company	ts	3,175,897.00	2,703,293.00	3,135,008.00	3,314,922.00	4,183,520.00	5,622,615.00	5,847,212.00
SBANK	Southern Bank Berhad	f	3,166,364.00	2,021,085.00	2,402,846.00	2,144,598.00	2,875,968.00	4,823,014.00	5,967,197.00
DIGI	DIGI Communications Berhad	IPC	3,075,000.00	3,645,000.00	3,750,000.00	1,650,000.00	2,700,000.00	2,970,000.00	3,267,000.00
MALAKOF	Malakoff Berhad	ts	2,781,440.00	2,642,368.00	2,910,772.00	3,513,594.00	4,725,400.00	6,396,718.00	7,337,294.00
SSTEEL	Southern Steel Berhad	ip	2,726,736.00	282,353.00	225,882.40	296,470.70	479,130.90	714,731.00	296,986.00
MAS	Malaysian Airline System Berhad	ts	2,525,600.00	2,956,800.00	2,695,000.00	2,741,200.00	6,015,571.00	5,539,338.00	3,559,210.00
SIMEPTY	Sime UEP Properties Berhad	pr	2,163,856.00	1,561,212.00	1,456,052.00	1,536,944.00	1,812,223.00	1,698,959.00	1,690,869.00
TA	Ta Enterprise Berhad	f	2,152,128.00	1,009,640.00	856,866.40	657,595.10	1,248,767.00	1,089,350.00	810,369.80
PETDAG	Petronas Dagangan Berhad	ts	2,135,926.00	1,420,639.00	2,096,188.00	2,582,980.00	3,452,253.00	3,675,780.00	3,934,078.00
HLIND	Hong Leong Industries Berhad	cp	2,003,025.00	421,806.00	354,700.50	244,136.20	765,455.00	1,004,198.00	652,729.00
DRHBCOM	DRB-Hicom Berhad	ip	1,984,343.00	1,031,006.00	1,284,517.00	1,917,190.00	2,071,163.00	268,494.00	1,173,292.00
LINGUI	Lingui Development Berhad	ip	1,979,701.00	614,389.90	565,628.80	502,239.30	626,648.50	1,002,638.00	626,648.50
JTIASA	Jaya Tiasa Holdings Berhad	ip	1,955,640.00	906,066.10	552,867.70	909,983.20	1,034,054.00	866,550.70	572,121.00
IOICORP	IOI Corporation Berhad	pl	1,945,809.00	2,148,954.00	3,234,720.00	4,944,134.00	8,057,950.00	10,663,370.00	13,918,504.00
MNI	MNI Holdings Berhad	f	1,914,968.00	1,661,523.00	1,034,700.00	760,643.20	1,018,487.00	727,171.20	1,131,784.00
UMW	UMW Holdings Berhad	cp	1,905,037.00	1,341,610.00	1,909,756.00	2,026,219.00	2,851,032.00	2,585,511.00	2,991,082.00
NCB	NCB Holding Berhad	ts	1,870,803.00	1,598,173.00	1,269,140.00	775,602.30	1,175,155.00	1,245,664.00	1,170,930.00
ROADBLD	Road Builder Holdings (M) Berhad	cn	1,805,770.00	972,850.30	1,464,156.00	1,651,109.00	1,803,051.00	1,308,865.00	724,950.30
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	1,790,100.00	1,671,736.00	1,641,341.00	1,632,242.00	1,681,614.00	810,232.20	817,875.90

OSK	OSK Holdings Berhad	f	1,724,599.00	957,522.60	887,375.80	695,963.80	831,301.00	827,706.40	579,850.60
PPB	PPB Group Berhad	cp	1,692,648.00	1,295,244.00	1,628,868.00	1,933,055.00	3,213,581.00	4,030,700.00	4,931,680.00
AFFIN	Affin Holdings Berhad	f	1,666,926.00	1,180,998.00	1,079,506.00	1,039,896.00	1,063,212.00	2,028,409.00	1,903,151.00
SUNCITY	Sunway City Berhad	pr	1,624,410.00	340,199.00	408,239.00	214,325.00	436,275.00	489,144.00	547,736.00
HLBANK	Hong Leong bank Berhad	f	1,587,220.00	3,741,291.00	5,198,157.00	6,454,481.00	8,213,608.00	8,331,835.00	7,792,565.00
HAPSNG	Hang Seng Consolidated Berhad	ts	1,573,016.00	1,425,736.00	1,377,162.00	1,376,804.00	1,572,440.00	1,445,064.00	1,138,829.00
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	1,441,405.00	1,070,887.00	1,330,759.00	1,193,344.00	1,443,561.00	1,318,213.00	1,366,519.00
PSCI	PSC Industries Berhad	ip	1,424,322.00	1,353,106.00	1,084,067.00	791,290.00	1,096,723.00	158,415.50	76,596.50
HL	Highland & Lowland Berhad	pl	1,377,886.00	3,988,618.00	3,354,065.00	2,308,564.00	3,535,366.00	2,187,696.00	2,526,124.00
OYL	OYL Industries Berhad	cp	1,325,818.00	1,707,463.00	2,064,408.00	2,681,585.00	4,804,714.00	505,434.20	4,514,551.00
KENANGA	K & N Kenanga Holdings Berhad	f	1,315,282.00	589,263.00	610,146.00	427,146.30	623,994.20	483,289.60	281,409.10
MOX	Malaysian Oxigen Berhad	ip	1,301,082.00	1,398,072.00	1,411,802.00	1,384,130.00	1,605,591.00	1,647,115.00	167,479.70
SHELL	Shell Refining Company (M) Berhad	ip	1,296,000.00	1,146,000.00	1,140,000.00	1,140,000.00	1,338,000.00	2,910,000.00	2,925,000.00
GAMUDA	Gamuda Berhad	cn	1,269,857.00	2,461,207.00	3,023,559.00	3,708,243.00	4,514,806.00	3,910,637.00	2,394,578.00
BJLAND	Berjaya Land Berhad	ts	1,268,640.00	761,693.80	731,159.10	698,071.90	719,751.10	745,792.00	729,471.10
CHHB	Country Heights Holding Berhad	pr	1,235,132.00	689,172.50	496,258.20	286,727.00	330,838.80	200,412.00	159,908.30
JTINTER	JT International Berhad	cp	1,234,440.00	983,367.80	1,255,363.00	1,061,828.00	1,192,595.00	1,155,980.00	1,061,828.00
BKAWN	Batu Kawan Berhad	pl	1,231,788.00	1,064,079.00	1,121,910.00	1,532,506.00	1,734,912.00	1,763,827.00	2,183,098.00
ORIENT	Oriental Holdings Berhad	cp	1,205,144.00	1,923,121.00	1,964,478.00	1,912,900.00	2,378,200.00	248,400.00	244,800.00
TIME	Time Engineering Berhad	ts	1,082,297.00	1,448,039.00	1,201,723.00	470,295.60	730,624.70	556,136.60	217,068.30
TCHONG	Tan Chong Motor Holdings Berhad	cp	1,075,200.00	705,600.00	954,240.00	712,320.00	864,263.90	1,115,520.00	907,200.00
IJM	IJM Corporation Berhad	cn	1,074,301.00	935,248.00	1,497,803.00	1,858,017.00	1,697,717.00	2,190,174.00	2,033,073.00
GUINES	Guinness Anchor Berhad	cp	1,052,948.00	978,797.50	1,033,175.00	1,057,343.00	1,286,937.00	1,555,805.00	1,721,959.00
HDBS	Hwang - DBS (Malaysia) Berhad	f	1,052,416.00	670,657.00	469,459.90	361,817.00	468,540.00	415,620.60	316,414.30
SETIA	SP Setia Berhad	pr	1,032,533.00	808,650.30	811,991.80	1,357,655.00	1,959,839.00	2,513,294.00	2,142,778.00
CMSB	Cahaya Mata Sarawak Berhad	f	1,009,434.00	602,404.40	768,320.30	571,315.10	655,504.00	494,169.00	306,384.80
FFM	FFM Berhad	cp	1,004,063.00	999,641.00	1,099,634.00	1,137,938.00	1,807,313.00	n/a	n/a
ASIATIC	Asiatic Development Berhad	pl	978,562.20	607,894.70	845,121.90	1,067,522.00	1,299,197.00	1,351,683.00	1,605,478.00
PMCORP	Pan Malaysia Corporation Berhad	ip	976,140.00	510,255.00	440,002.50	410,422.50	416,925.50	360,014.60	343,265.30
KFC	KFC Holdings (Malaysia) Berhad	ts	957,465.00	808,764.60	857,590.50	682,808.00	876,375.50	709,824.50	812,927.50
MNRB	Malaysian National Reinsurance Berhad	f	933,094.20	948,586.10	505,267.30	481,861.50	641,186.70	702,195.50	788,864.30
MIDF	Malaysian Industrial Development Bhd	f	921,504.00	422,620.80	606,921.60	795,882.20	1,114,235.00	1,272,189.00	966,098.30
UMLAND	United Malayan Land Berhad	pr	912,125.80	555,921.60	372,945.20	277,960.80	295,079.40	232,347.00	181,230.70
BRAYA	Bandaraya Developments Berhad	pr	895,590.60	438,267.80	402,539.40	383,484.30	395,393.70	928,937.10	414,448.90
MULPHA	Mulpha International Berhad	ts	883,709.00	488,044.60	516,233.80	534,593.20	589,836.80	815,731.80	714,970.80
WTK	WTK Holdings Berhad	ip	873,904.00	843,858.40	658,741.30	793,111.40	681,682.60	1,015,975.00	563,702.50
BSTEAD	Boustead Holdings Berhad	ts	842,806.80	627,331.90	534,595.90	425,494.70	720,386.00	979,630.50	1,048,113.00
RVIEW	Riverview Rubber Estates Berhad	pl	823,595.00	88,625.60	151,312.00	149,150.40	150,452.00	134,888.00	105,705.50
EKSONS	Eksons Corporation Berhad	ip	793,148.80	220,045.40	174,065.80	152,718.10	178,992.20	241,393.10	144,507.40
EKRAN	Ekran Berhad	pr	776,795.00	341,880.00	312,951.00	136,751.90	126,232.60	94,674.40	78,895.40
MTD	MTD Capital Berhad	cn	776,729.30	639,357.30	721,763.20	856,672.20	429,328.60	710,250.80	490,718.70
BOLTON	Bolton Berhad	pr	762,477.60	331,991.90	291,221.00	248,576.80	323,546.40	301,122.40	233,850.40
TWS	TWS Berhad	cp	755,271.00	581,082.00	518,823.00	587,012.00	726,353.00	1,669,726.00	741,175.00
TRACTOR	Tractors Malaysia Holdings Berhad	ip	741,960.00	699,840.00	929,880.00	693,360.00	858,600.00	771,120.00	1,146,960.00
MKLAND	MK Land Berhad	pr	731,666.70	522,111.70	479,490.30	1,996,419.00	2,703,503.00	2,135,337.00	615,266.60
IP	Island & Peninsular Berhad	pr	727,468.90	695,034.00	558,607.20	637,051.00	1,401,512.00	1,619,830.00	510,598.70
FACBRES	Facb Resorts Berhad	pr	725,380.00	370,476.00	506,246.00	304,509.00	375,561.00	424,282.00	n/a
PMIND	Pan Malaysia Industries Berhad	ts	714,248.10	249,497.60	489,210.80	234,821.20	293,526.50	198,345.90	123,966.20
KIANJOO	Kian Joo Can Factory Berhad	ip	711,678.00	395,762.40	370,304.00	357,745.80	554,662.20	501,711.80	548,764.20
IGB	IGB Berhad	pr	703,224.50	564,255.40	665,268.80	978,246.50	1,579,727.00	1,835,947.00	1,663,294.00

SRAWAK	Sarawak Enterprise Corporation Behad	ts	687,234.00	1,416,030.00	1,650,085.00	1,181,976.00	1,193,678.00	1,650,085.00	1,898,686.00
CAMERLIN	Camerlin Group	ip	665,577.00	521,255.00	411,369.00	325,494.00	355,132.00	394,242.00	570,576.00
FN	Fraser & Neave Holdings Berhad	cp	664,009.00	776,996.30	1,276,245.00	1,183,557.00	2,688,000.00	1,782,465.00	2,210,257.00
UTDPLT	United Plantations Berhad	pl	636,342.00	509,070.20	554,522.90	840,088.20	994,880.50	1,061,483.00	1,467,345.00
THGROUP	TH Group Berhad	pl	623,273.00	502,180.00	473,687.50	331,225.10	370,543.70	286,047.70	216,468.60
MAA	MAA Holdings Berhad	f	620,878.50	686,646.60	716,692.80	633,056.30	844,582.40	754,797.90	474,792.20
HUMEIND	Hume Industries (Malaysia) Berhad	ip	620,358.90	539,482.20	659,065.20	610,978.60	873,930.80	57,213.60	739,680.00
COSWAY	Cosway Corporation Berhad	cp	606,736.10	314,337.30	211,826.30	258,324.80	382,320.60	285,880.20	244,548.10
TAANN	Ta Ann Holdings Behad	ip	600,000.00	550,137.50	520,130.00	1,028,442.00	1,148,427.00	1,120,849.00	949,930.20
PJDEV	PJ Development Holdings Berhad	cn	592,971.60	305,608.40	269,117.90	168,768.80	218,943.40	237,188.60	168,768.80
AMWAY	Amway (Malaysia) Holding Berhad	ts	582,915.10	1,019,193.00	854,807.20	928,780.90	1,076,728.00	1,076,728.00	1,076,728.00
INSAS	Insas Berhad	f	573,680.70	229,017.40	253,776.10	180,115.20	274,752.00	224,889.70	139,176.50
KONSORT	Konsortium Logistik Berhad	ts	553,774.80	360,924.30	301,072.50	215,706.40	219,362.40	182,946.40	101,102.00
JOHPORT	Johor Port Berhad	ts	551,100.00	435,600.00	458,700.00	468,600.00	709,500.00	780,450.00	n/a
IOIPROP	IOI Properties Berhad	pr	550,121.20	1,300,273.00	1,636,727.00	1,762,865.00	2,344,640.00	2,476,290.00	2,495,483.00
EON	Edaran Otomobil Nasional Berhad	ts	546,472.80	415,795.40	556,251.30	606,380.70	1,111,388.00	1,444,159.00	1,257,415.00
MUIPROP	MUI Properties Berhad	pr	542,482.60	263,600.70	259,780.40	225,397.70	278,881.90	236,361.10	222,695.40
AM	A & M Realty Berhad	pr	536,109.30	373,103.10	321,444.00	285,728.00	510,749.90	222,775.10	132,214.70
LEADER	Leader Universal Holdings Berhad	ip	532,294.50	187,677.40	226,958.70	205,135.70	277,151.50	178,948.20	139,666.90
SHANG	Shangrila Hotel (M) Berhad	htl	528,000.00	466,400.00	453,200.00	422,400.00	484,000.00	536,800.00	550,000.00
PELANGI	Pelangi Berhad	pr	513,252.00	272,558.60	268,428.90	237,456.00	312,309.00	435,780.00	537,462.00
PANTAI	Pantai Holdings Berhad	ts	499,167.90	252,825.30	281,739.80	261,419.00	367,562.10	324,319.50	818,370.20
KSENG	Keck Seng (Malaysia) Berhad	ip	492,441.70	321,052.70	308,983.00	300,213.80	345,008.20	443,165.70	514,987.40
LANDMRK	Landmarks Berhad	htl	463,785.00	204,085.60	213,362.30	171,617.50	292,213.50	408,171.30	477,745.90
FORMIS	Formosa Prosonic Industries Berhad	ts	436,620.00	330,912.00	213,725.20	136,738.10	221,768.60	113,333.10	133,554.40
LPI	LPI Holdings Berhad	f	435,857.20	272,681.70	322,194.00	450,718.00	497,458.30	760,515.90	1,151,401.00
DIALOG	Dialog Group Berhad	ts	429,758.00	485,400.00	50,636.60	54,328.90	46,099.40	722,130.30	585,360.70
TASEK	Tasek Corporation Berhad	ip	428,828.00	364,960.00	392,332.00	419,809.80	505,088.30	453,660.00	363,856.70
NALURI	Naluri Berhad	ts	428,118.70	621,464.40	683,610.80	590,391.20	870,050.20	13,810.30	292,089.00
STAR	Star Publications Malaysia Berhad	ts	417,882.40	406,097.10	187,487.80	227,718.00	235,203.20	2,322,112.00	2,714,215.00
PGARDEN	Petaling Garden Berhad	pr	409,979.20	377,562.20	430,954.90	347,052.20	385,189.80	600,917.50	519,874.30
PTGTIN	Petaling Tin Berhad	pr	381,984.20	99,420.00	140,917.10	148,045.60	172,146.00	19,764.20	37,842.30
DAIMAN	Daiman Developments Berhad	pr	376,637.50	266,784.90	322,840.80	282,571.40	468,048.00	314,395.20	285,400.80
BCB	BCB Berhad	pr	375,000.00	183,855.00	168,750.00	146,437.50	134,062.50	123,729.40	91,275.80
DNP	DNP Holdings Berhad	cp	368,160.40	236,000.30	230,756.20	195,955.60	209,645.70	206,503.40	197,098.00
AVENUE	Avenue Asset Berhad	f	367,720.50	121,572.10	111,132.50	95,799.50	532,830.40	1,251,035.00	475,491.30
CIMA	Cement Industries of Malaysia Berhad	ip	360,144.30	229,542.50	488,107.70	266,480.40	331,121.70	241,415.40	184,526.70
ACPI	ACP Industries Berhad	ip	359,330.40	240,101.00	357,091.20	439,335.60	420,719.20	156,176.30	86,764.60
PO	Pacific & Orient Berhad	f	355,136.00	249,984.00	220,224.00	157,728.00	204,238.20	211,694.00	196,342.90
SDRED	Selangor Dredging Berhad	pr	340,902.40	191,757.60	172,581.80	142,752.90	174,712.50	187,496.30	149,144.80
DIJACOR	Dijaya Corporation Brhad	pr	337,353.90	259,203.00	259,256.00	203,516.00	233,330.40	259,526.00	212,811.30
HSL	Hock Seen Lee Berhad	cn	336,000.00	108,750.00	115,500.00	135,000.00	215,589.80	389,226.90	305,321.70
KILHALL	Killinghall Malaysia Berhad	f	323,400.00	164,640.00	130,095.00	261,660.00	268,661.10	294,591.90	796,006.60
JUSCO	Jaya Jusco Stores Berhad	ts	318,825.00	438,750.00	436,995.00	570,375.00	794,138.00	873,551.00	n/a
SUNRISE	Sunrise Berhad	pr	318,023.20	233,096.60	183,105.90	212,260.00	375,367.50	721,103.60	494,541.50
KFIMA	Kumpulan FIMA Berhad	f	315,792.00	134,211.60	113,158.80	136,843.20	121,053.60	123,685.20	121,053.60
SAPURA	Sapura Telecommunications Berhad	tech	313,562.00	528,405.00	496,185.00	207,818.00	608,954.00	225,855.00	145,180.80
LPF	Ladang Perbadanan FIMA Berhad	pl	310,896.00	354,330.00	452,628.00	286,893.00	347,472.00	342,900.00	291,465.00
NANYANG	Nanyang Press Holdings Berhad	ts	304,714.80	298,740.00	298,615.20	340,510.50	301,813.20	309,660.00	301,996.50
ANNJOO	Ann Joo Resources Berhad	ip	302,508.00	203,352.60	228,160.50	240,769.80	373,654.20	562,648.40	262,217.30

GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	299,941.20	184,579.20	173,043.00	196,115.40	207,651.60	217,876.80	222,463.70
MBMR	MBM Resources Berhad	ts	298,500.00	290,510.00	500,400.00	667,201.00	751,248.00	518,830.70	641,569.10
GPERAK	Gula Perak Berhad	htl	294,271.20	217,504.80	250,770.20	299,389.00	345,448.80	433,614.70	77,608.20
WLDWIDE	Worldwide Holdings Berhad	pr	285,982.90	240,454.70	230,573.00	260,502.40	400,118.10	343,595.40	318,233.50
KIMHIN	Kim Hin Industry Berhad	ip	275,878.10	169,882.80	203,278.60	303,280.60	403,484.40	329,885.90	209,136.60
GUH	Grand United Holding Berhad	ip	275,099.00	224,378.30	205,575.60	149,167.70	171,730.90	132,872.10	55,154.40
SHL	SHL Consolidated Berhad	pr	272,689.90	283,973.60	226,076.40	230,198.90	300,233.80	414,032.00	288,127.60
GCORP	General Corporation Berhad	cn	270,347.40	163,396.80	159,237.60	136,659.10	163,396.80	151,513.40	118,834.00
TALAM	Talam Corporation Berhad	pr	262,666.00	193,770.00	186,234.50	183,005.00	249,583.30	714,997.20	120,167.60
FPI	Formis Malaysia Berhad	cp	257,329.30	136,859.80	142,596.50	136,040.30	102,440.00	113,307.70	83,749.10
SOP	Sarawak Oil Palms Berhad	pl	249,766.00	106,364.20	121,559.00	176,640.50	192,785.00	188,986.30	148,150.10
ESSO	Esso Malaysia Berhad	ip	237,917.50	486,000.00	607,500.00	515,700.00	680,400.00	718,200.00	664,200.00
NEGARA	Negara Properties (M) Berhad	pr	234,155.30	191,792.30	252,977.60	211,795.20	275,336.10	187,087.40	175,791.50
CHINTEK	Chin Teck Plations Berhad	pl	230,548.30	330,542.20	387,881.20	414,630.40	464,672.00	459,678.30	460,736.80
KEMAS	Kumpulan Emas Berhad	ts	227,815.60	186,486.30	198,918.70	162,099.60	230,192.50	357,580.00	393,339.00
SPB	Selangor Properties Berhad	pr	223,174.80	832,742.40	835,838.40	841,859.20	1,202,660.00	749,085.10	848,734.00
ALCOM	Aluminium Company of Malaysia Brhad	ip	219,554.90	141,520.30	145,488.20	150,814.00	148,358.60	265,276.40	178,305.10
MUDA	Muda Holdings Berhad	ip	218,864.00	200,693.10	196,509.90	173,779.90	141,018.10	105,407.50	85,471.80
METROK	Metro Kajang Holdings Berhad	pr	213,750.00	137,750.00	131,100.00	179,502.40	282,826.10	273,109.20	154,111.60
BJGROUP	Berjaya Group Berhad	ts	212,563.00	449,451.30	314,615.90	194,762.20	209,743.90	179,780.90	n/a
MFLOUR	Malayan Flours Mills Berhad	cp	212,558.00	176,431.50	156,267.90	145,346.00	156,267.90	151,305.50	138,856.40
YHS	Yeo Hiap Seng Malaysia Berhad	cp	208,662.00	195,986.90	248,506.20	188,301.10	229,291.80	252,349.10	256,188.00
KWANTAS	Kwantas Corporation Berhad	pl	207,062.70	212,000.00	210,304.50	287,352.40	488,116.00	716,059.70	587,286.20
MSC	Malaysia Smelting Corporate Berhad	ip	202,500.00	188,250.00	234,000.00	198,750.00	345,000.00	450,000.00	450,000.00
KULIM	Kulim (Malaysia) Berhad	pl	201,600.00	257,116.20	259,006.70	470,749.40	527,745.20	743,690.90	644,183.00
DLLOYD	Delloyd Ventures Berhad	ip	199,530.00	185,546.50	168,218.50	226,304.00	262,131.10	263,034.50	186,612.30
UAC	UAC Berhad	ip	197,258.00	176,320.00	213,788.00	287,452.10	361,154.60	384,361.30	354,806.40
EPIC	Eastern Pasific Industrial Co Berhad	ts	191,947.00	113,716.50	170,978.00	150,009.00	237,917.50	285,619.30	278,853.40
INTI	Inti Universal Holdings Berhad	ts	189,905.00	114,660.00	132,300.00	168,441.60	287,789.60	291,268.80	149,380.20
PUTERA	PUTERA Capital Berhad	cp	187,000.00	66,958.00	74,197.00	69,672.00	67,682.00	76,095.00	84,907.00
UTUSAN	UTUSAN Melayu (Malaysia) Berhad	Ts	184,108.00	164,804.00	131,543.00	92,847.00	185,667.00	204,248.00	224,673.00
SAB	Southern Acids(M) Berhad	ip	182,454.70	165,677.20	200,280.70	169,894.30	228,668.90	241,003.80	225,941.10
AIC	AIC Corporation Berhad	tech	181,429.20	307,912.50	296,982.40	244,497.60	290,976.00	170,428.80	120,547.20
ICP	Industrial Concrete Products Berhad	ip	178,200.00	148,587.00	168,398.60	207,727.50	247,685.20	150,091.20	187,512.30
YTLCMT	YTL Cement Berhad	ip	173,313.00	79,120.70	87,061.60	197,043.00	352,205.00	927,776.70	1,111,468.00
HUOJOO	Hua Joo Seng Enterprise Berhad	cp	172,001.00	118,000.00	154,800.00	152,400.00	176,401.00	n/a	n/a
MFCB	Mega First Corporation Berhad	ts	165,200.00	92,040.00	125,080.00	146,320.00	240,720.00	224,200.00	188,800.00
JERNEH	Jerneh Asia Berhad	f	159,998.60	217,931.70	222,390.90	219,933.00	250,441.00	266,101.90	226,381.00
DLADY	Dutch Lady Milk Industries Berhad	cp	158,400.00	164,800.00	249,600.00	284,160.00	253,440.00	99,840.00	400,000.00
METACOR	Metacorp berhad	ts	155,336.70	100,576.80	159,246.60	138,572.50	296,142.80	287,949.50	160,716.00
PARAMOUNT	Paramount Corporation Berhad	pr	151,940.70	92,464.90	152,560.90	146,157.10	137,724.20	224,707.80	196,800.10
FAREAST	Far East Holdings Berhad	pl	148,960.00	85,120.00	117,040.00	164,665.80	205,875.20	254,970.30	353,430.50
KLUANG	Kluan Rubber Company (Malaya) Brhad	pl	146,939.50	118,377.00	164,993.50	140,420.00	174,020.50	236,708.00	150,480.00
APOLLO	Apollo Food Holdings Berhad	cp	141,600.00	124,800.00	136,000.00	102,244.80	125,664.00	189,600.00	186,400.00
NSOP	Negri Sembilan Oil Palms Berhad	pl	138,280.00	97,437.00	124,509.20	134,384.00	142,270.80	158,064.10	167,656.50
ASIAFILE	Asia File Corporation Berhad	cp	134,143.80	226,402.00	220,057.20	295,343.40	368,112.60	441,724.50	366,438.80
EO	Eastern Oriental Berhad	pr	130,608.10	158,375.00	113,910.80	109,261.40	162,729.70	167,379.10	220,847.50
HALIM	HalimMazmin Berhad	ts	129,877.00	119,965.00	142,854.00	55,638.90	80,571.00	263,507.80	231,844.40
AJI	Ajinomoto Malaysia Berhad	cp	129,702.40	121,596.00	145,915.20	105,788.50	151,995.00	97,276.80	125,851.90
EKOVEST	Ekovest Berhad	cn	128,041.80	145,323.00	153,987.30	150,794.00	251,647.50	143,356.80	69,886.40

KPJ	KPJ Healthcare Berhad	ts	123,360.00	95,520.00	66,720.00	208,609.70	263,290.40	311,591.90	303,602.10
SBAGAN	Sungai Bagan Rubber Co (M) Berhad	pl	122,850.00	103,950.00	156,870.00	151,200.00	179,550.00	197,505.00	200,471.00
WCT	WCT Engineering Berhad	cn	118,868.80	50,111.30	65,803.50	54,724.60	72,162.40	557,356.50	463,577.00
HWGB	Ho Wa Genting Berhad	ip	117,280.70	120,894.60	221,025.50	171,835.70	262,341.00	97,066.20	44,124.50
TEXCHEM	Texchem resources Berhad	ts	116,615.50	116,062.80	191,480.40	155,037.00	159,404.30	173,738.60	140,231.90
TSH	TSH Resources Berhad	ip	106,313.00	166,772.90	134,837.70	192,498.50	268,562.30	904,551.00	493,124.00
ENG	Eng Teknologi Holdings Berhad	tech	60,561.30	474,106.30	260,356.70	202,452.50	356,177.30	298,652.00	253,808.30
	Market Capitalization of Samples	**1**	410,616,152.20	331,800,453.30	329,699,116.80	324,194,643.00	410,334,874.40	415,623,307.60	449,989,098.70
	Market Capitalization of Main Board	**2**	509,950,002.00	426,730,235.00	474,850,500.40	460,820,100.30	615,890,400.70	685,900,510.00	660,540,500.10
	Percentage of Samples to Main Board	**(1:2)**	**80.52%**	**77.78%**	**69.45%**	**70.38%**	**66.65%**	**60.06%**	**68.20%**
	Number of PLCs on Bursa Malaysia		**474**	**499**	**520**	**561**	**598**	**622**	**646**

company is also consistent with prior studies on CSRD (see for example, Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Abu-Baker and Nasser, 2000; Guthrie and Parker, 1990).

According to Gray et al. (1995) the annual report is generally viewed as the main official and legal document, which is produced on a regular basis and act as an important place for the presentation of a company's communication within political, social and economic systems. This situation reflects that companies' annual reports are the key business communication media, especially in the case of a company that is quoted widely (Adam and Harte, 1998). Zeghal and Ahmed (1990) explicitly claimed that annual reports are not the only medium through which companies can report their CSR activities and other activities. Thus, this media enables contact that is timelier for larger stakeholder numbers.

The companies' annual reports are chosen in this study as the main data due to the following justifications. First, the annual report is the most important source of corporate reporting (Jenkins and Yakovlena, 2005; Al-Tuwaijri, Christensen and Hughes, 2004; and Tilt, 1994). Second, in Malaysia, annual reports of listed companies are the most accessible source of information, either in hard copy or electronic publications (Sumiani et al., 2007; Christopher et al., 1997; Wiseman, 1982).

Data for these companies is collected for the years from 1999 to 2005. The time span is selected for two reasons: first, this period is the recovery period from the financial crisis that hit the Asian countries particularly the Malaysian capital market (Ariff and AbuBakar, 1999). Hence, post financial crisis companies can focus on their involvement in CSR activities because they have more resources to contribute their

communities and other stakeholder. During this period, companies also started to address demand of stakeholders which concern with CSR activities (Nik Ahmad and Abdul Rahim, 2003). In addition, this period indicates that the awareness level of managers towards CSR is still in the early stages (Abdul Hamid, 2004) and therefore, it is asserted that this is the period of companies' involvements in CSRD (Thompson and Zakaria, 2004; Rashid and Ibrahim, 2002). Hence, at the same time, this is an infancy period of the Malaysian PLCs involved in CSR activities (Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999; Tsang, 1998) and there are limited companies involved in CSR activities. Low level of pressure from government and stakeholders on companies may be one factor why CSRD is still in its growing period (Nik Ahmad and Abdul Rahim, 2003; William and Pei, 1999).

4.5. Multiple Regression Analysis.

The main independent variables of this study are CSRD and dimensions of CSRD which represent CSR activities of companies disclosed in their annual reports. Hence, the major focus of this thesis is to examine whether a relationship exists between: CSRD and corporate financial performance (CFP); CSRD and Institutional Ownership (IO); and both CSR and IO on CFP. Multiple regression models are proposed and this following section presents the measurement of variables.

4.5.1. Measurement of Variables

This section is a discussion about the measurement of variables. It is divided into two main variables, namely, dependent variables, which are represented by CFP and IO and independent variables, which are represented by CSRD and dimensions of CSRD and the set of control variables.

4.5.1.1. Dependent Variables

There is no general agreement on the measurement of financial performance (Cochran and Wood, 1984). However, most measurements of financial achievement address two categories, namely accounting based and market based measurements. Both measures focus on different elements of CFP which are subject to particular biases. The accounting-based measures highlight the company's historical estimation of accounting profitability. This method can be biased due to the differences in the accountancy system and managerial manipulation (Scholtens, 2008). Market-based measures are less vulnerable to accounting system and managerial manipulation since they refer to investors' evaluations and expectations of CFP. Nevertheless, market-based measures have some limitations, such as it might not representing fair assessment from investors, when information is asymmetric (Scholtens, 2008).

Although there is still disagreement on the measurement, this study uses three alternative measurements of the financial performance for the dependent variables. The measurements are as follows:

- Accounting-based performance measurements in the form of return on assets (ROA).
- Market-based performance measurements in the form of stock market return (R_i).
- Tobin's *q* ratio (q), which represents market value of total equity and liabilities to total book value of equity and liabilities.

The reason for using ROA as the dependent variable to measure CFP is because it is less likely to be manipulated and it is the most extensively employed determinant of CFP (Yoshikawa and Phan, 2003). This study also uses the change in stock market

return (R_i) as the dependent variable to measure CFP, because most investors concerned about share returns (Yoshikawa and Phan, 2003). Tobin's *q* has been widely used to measure market value and its use has spread into the area of empirical analysis. It is defined as market value of the company divided by the replacement cost of assets (Hirsch and Seaks, 1993). Furthermore, Tobin's *q* ratio is important to test the robustness of reported results to the use of an alternate performance measure (Welch, 2003). This is especially so as "*q* is primarily the community of investors constrained by their acumen, optimism, or pessimism" (Demsetz and Villalonga, 2001: 213). The advantage of using Tobin's *q* is that the problem of estimating either rate of returns or marginal costs is avoided. With the other way, for *q* to be meaningful, one needs accurate measures of both the market value and replacement cost of a company's assets (Lindenberg and Ross, 1981).

The primary focus in this study includes the behaviour of investors as represented by IO with respect to CSR activities. In this thesis, the involvement of the Malaysian PLCs towards CSR activities is represented by CSRD. Therefore, IO is used as the dependent variable to examine the relationship between CSRD and IO. The IO as the dependent variable is represented by the percentage of outstanding shares held by institutional investors (PERCIO). Some institutional investors which actively invest in the capital market include public and union pension funds, mutual fund, investment bankers, insurance companies, employee provident fund, and private companies.

4.5.1.2. Independent Variables

There are two types of independent variable in this study: the main independent variables and control variables. The main independent variable is CSRD which represent CSR activities and they are divided into four categories or dimensions,

namely, employee relations, community involvement, product and environmental. Some prior researchers employed more than four dimensions of CSRD, but as far as the involvement and disclosure of CSR activities in Malaysia, CSRD is still in the form of general statements and most companies disclosed the four categories (see section 4.5.1.3).

The control variables consist of size, leverage, beta, sales, asset turn over, and earnings per share. Size and Sales are the important control variables as apparently larger companies implement CSR principles more often than small companies (Toustsoura, 2004). Financial leverage is also incorporated as a control variable because high debt levels can significantly impact management behaviour and, thus, the CFP (Stulz, 1990; Jensen, 1988). Beta is the measurement of the market performance as measurement of the systematic risk and the standard deviation of total returns (McGuire et al., 1988). Both financial leverage (LEV) and systematic risk (BETA) variables are used as risk measurement whether investors want to invest and hold their portfolios investment for long-term. Asset turnover ratio (ATR) variable is utilized to control differences in capital intensity (Wagner, 2005). This ratio is useful to determine the amount of sales generated from each ringgit of assets. Companies with low profit margins tend to have higher asset turnover and those with high profit margins tend to have lower asset turnover (Selling and Stickney, 1989).

4.5.1.3. Measurement of CSRD

There are two techniques that can be used to measure the level of CSRD in the annual reports (Al-Tuwaijri et al., 2004). The first measurement is on the level of the *quantity of disclosing* for example, the amount of pages (Gray et al., 1995; Guthrie and Parker, 1990), the amount of sentences (Hackston and Milne, 1996), and quantity of words

(Zeghal and Ahmed, 1990). All these methods have their limitations. According to Al-Tuwaijri et al. (2004), the page may possibly include a picture that does not have information on the CSR activities, whereas sentences and words may possibly ignore a graph or necessary table. The second measurement is *quality of disclosing* by uses a disclosure scoring measurement that comes from content analysis. This method is also called quantitative disclosing (AL-Tuwaijri et al., 2004). This study utilizes both the number of sentences of quantity of CSRD and scoring measurement of the content analysis. Quantitative disclosing is assigned to different disclosing items that are based on the perceived importance of each item of CSRD dimension, namely, employee relations, community involvement, product and environment to various users' group.

The value of CSRD used in this study consists of the attributes of content analysis of CSR activities. The content analysis is employed in this study through content categories acknowledging the written messages in annual reports that has significant proof and can be classified. Literature in previous studies used different categories to identify CSR practices (Gao, Heravi and Xiaa, 2005; Alnajjar, 2000; Williams and Pei, 1999; Gray et al., 1995). The majority of researchers used Ernst and Ernst (1978) social dimension to investigate the extent of social disclosing by enterprises (Clack and Gibson-Sweet, 1999; Hackson and Milne, 1996; Gray et al., 1995).

In the Malaysian context, Haniffa and Cooke (2005) and Thompson and Zakaria (2004) in their studies used five categories of content analysis but with different themes. Abdul Hamid (2004) used four categories and Nik Ahmad et al. (2003) identified six types of CSRD. The number of companies that have reported on the energy theme is very rare and less than 1% (Thompson and Zakaria, 2004; Nik Ahmad et al., 2003). Thus, in this study, energy is combined with the environment theme. Therefore, four

categories of CSRD, namely, employee relations, community involvement, product dimension, and environmental dimension are identified in this study. These categories are consistent with the recent studies (Branco and Rodrigues, 2008; and Abdul Hamid, 2004).

In this study, the value of each item disclosed is measured quantitatively in that weights are assigned to different disclosing items based on the perceived importance of every item to a variety of user groups (Al-Tuwaijri et al., 2004 and Hughes et al., 2001). The reason for the utilization of this technique is because throughout this procedure the researcher has to re-evaluate the quality of disclosing based on the three criteria of quantitative disclosing (Al-Tuwaijri et al., 2004). The disclosing value of each item is assigned into three quality of classifications of quantitative disclosing is as following statements:

(1) Quantitative Disclosure Classification,

This classification refers to the greatest weight which has an assigned value of 3. For instance, the CSR practices disclosed in the company's annual report are as follows:

"In the performing arts, *The Star* and Artistry by Amway, supported by the Culture, Arts and Heritage Ministry, presented the Wild Zebra dance drama, a performance by the Shanghai Oriental City Dance troupe, at Istana Budaya in Kuala Lumpur. Nett proceeds of RM730,000 from the sale of the tickets were donated to Bethany Home (RM230,000), Tasputra Perkim Daycare (RM100,000), The Paediatric Institute (RM110,000), The Salvation Army (RM110,000), Shelter Home (RM110,000) and Asrama Darul Falah (RM70,000)". (Star Publication Malaysia Berhad, Annual Report, 2005;75).

(2) Qualitative Specific Disclosure Classification:

This classification refers to the next highest weight which is the non-quantitative disclosing but with particular information and it has an assigned value of 2. For

instance, the CSR practices which are disclosed in the company's annual report are as follows:

"The IJMP Group has set the goal of 'zero waste' for its palm oil mills. Palm oil mill effluent ("POME") is applied to the land principally as irrigation after going through the normal process of treatment. As a result of this practice, the pollution load on the land where the POME is applied is minimized. The areas in the estates where irrigation with the treated POME can be carried out are carefully selected, based on site suitability assessments conducted by qualified professional consultants" (IJM Corporation Berhad, Annual Report, 2005: 77).

(3) Qualitative Specific Disclosure Classification:

This classification refers to the lowest weighted value due to its qualitative disclosing in which the description is in general, thus it is assigned as the quantitative value of 1. For example, the CSR practices which are disclosed in the company's annual report are as follows:

"Public Bank Group has always displayed a readiness to invest in its staff right from the onset of their career with the Group, equipping them with knowledge, skills, and attitudes that will enable them to make their mark in the organization. Strong induction and orientation programmes are among the training lined up for staff from day one to inculcate the right corporate values and a sense of belonging" (Bublic Bank Berhad, Annual report, 2005:171).

Companies that do not disclose any kind of information for the given categorises obtain a score of 0.

Total scores value of CSRD is summed from all sub scores value of dimensions of CSRD comprises total scores values of employee relation dimension, community involvement dimension, product dimension and environment dimension. Hence, CSRD as independent variable is utilized as proxy to measure CSR activities which are disclosed in companies' annual reports (For more clearly, CSRD score results are shown in Appendix A).

4.5.2. Model Specification of the relationship between CSRD, CFP and IO

After the conceptual framework is constructed (see Figure 3.1 in chapter three) and the hypotheses are presented, the next step is to construct the multiple regression models for hypotheses testing procedures. Five multiple regression equation models are performed to examine the relationship between CSRD, CFP and IO. Utilized panel data analysis combines cross-sectional and time series data (for detailed discussion see section 4.7.2). Each model specification is presented in the following sections.

Model 1: Relationship between CSRD and CFP

In this model a multiple regression model is constructed to examine the relationship between CSRD and CFP. Three alternative dependent variables are used as measures of CFP, one independent variable and six control variables are also used to estimate the following multiple regression equation model:

$$CFP_{jt} = \beta_0 + \beta_1 CSRD_{jt} + \beta_2 BETA_{jt} + \beta_2 LEV_{jt} + \beta_3 LSIZE_{jt} + \beta_4 LSALES_{jt} + \beta_5 ATR_{jt} + \beta_6 EPS_{jt} + \varepsilon_{jt} \quad (4.1)$$

Where:

CFP_{jt} : three alternatives of CFP variables presented by ROA, Ri_{jt} and Q_{jt}

$CSRD_{jt::}$ CSRD scores value of company *j* at period *t*.

$BETA_{jt}$: the systematic risk of company *j* at period *t*.

LEV_{jt} : total debt to total assets of company *j* at period *t*.

$LSIZE_{jt}$: measured by natural logarithm total assets of company *j* at period *t*.

$LSALES_{jt}$: measured by natural logarithm total sales of company *j* at period *t*.

ATR_{jt} : ratio of total sales to total assets of company *j* at period *t*.

EPS_{jt} : ratio of net earnings to number of shares outstanding of company *j* at period *t*.

ε_{jt} : error term.

Model 2: Relationship between Dimensions of CSRD and CFP.

This model is constructed to examine the relationship between dimensions of CSRD and CFP. Three alternative variables are used as measures of CFP as dependent variables, four dimensions of CSRD as independent variables and six control variables are also used to estimate the following multiple regression equation model:

$$CFP_{jt} = \beta_0 + \beta_1 MPLD_{jt} + \beta_2 COMD_{jt} + \beta_3 PROD_{jt} + \beta_4 ENVD_{jt} + \beta_5 BETA_{jt} + \beta_6 LEV_{jt} + \beta_7 LSIZE_{jt} + \beta_8 LSALES_{jt} + \beta_9 ATR_{jt} + \beta_{10} EPS_{jt} + \varepsilon_{jt} \quad (4.2)$$

Where:

CFP_{jt} : three alternatives of CFP variables presented by ROA, Ri_{jt} and Q_{jt}

$MPLD_{jt}$: score value of employee relations disclosure of firm *j* at period *t*.

$COMD_{jt}$: score value of community involvement disclosure of firm *j* at period *t*.

$PROD_{jt}$: score value of product disclosure of firm *j* at period *t*.

$ENVD_{jt}$: score value of environment disclosure of firm *j* at period *t*.

$BETA_{jt}$: the systematic risk of firm *j* at period *t*.

LEV_{jt} : total debt to total assets of firm *j* at period *t*.

$LSIZE_{jt}$: measured by natural logarithm total assets of firm *j* at period *t*.

$LSALES_{jt}$: measured by natural logarithm total sales of firm *j* at period *t*.

ATR_{jt} : ratio of total sales to total assets of firm *j* at period *t*.

EPS_{jt} : ratio of net earnings to number of shares outstanding of firm *j* at period *t*.

ε_{jt} : error term.

Model 3: Relationship between CSRD and IO

This model is constructed to examine the relationship between CSRD and IO. One dependent variable as a measure of institutional ownership, one independent variable represented by CSRD variable and seven control variables are also used to estimate the following multiple regression equation model:

$$PERCIO_{jt} = \beta_0 + \beta_1 CSRD_{jt} + \beta_2 BETA_{jt} + \beta_3 LEV_{jt} + \beta_4 LSIZE_{jt} + \beta_5 LSALES_{jt} + \beta_6 ATR_{jt} + \beta_7 EPS_{jt} + \varepsilon_{jt} \quad (4.3)$$

Where:

$PERCIO_{jt}$: Percentage of shares held by institutional investors in firm *j* at period *t*.

$CSRD_{jt::}$ CSRD scores value of firm *j* at period *t*.

$BETA_{jt}$: the systematic risk of firm *j* at period *t*.

LEV_{jt} : total debt to total assets of firm *j* at period *t*.

$LSIZE_{jt}$: measured by natural logarithm total assets of firm *j* at period *t*.

$LSALES_{jt}$: measured by natural logarithm total sales of firm *j* at period *t*.

ATR_{jt} : ratio of total sales to total assets of firm *j* at period *t*.

EPS_{jt} : ratio of net earnings to number of shares outstanding of firm *j* at period *t*.

ε_{jt} : error term.

Model 4: Relationship between Dimension of CSRD and IO.

This model is constructed to examine the relationship between dimensions of CSRD and IO. There is one dependent variable represented by percentage of shares held by institutional investors, four dimensions of CSRD as independent variables and six control variables to estimate the following multiple regression equation model:

$$PERCIO_{jt} = \beta_0 + \beta_1 MPLD_{jt} + \beta_2 COMD_{jt} + \beta_3 PROD_{jt} + \beta_4 ENVD_{jt} + \beta_5 BETA_{jt} + \beta_6 LEV_{jt} + \beta_7 LSIZE_{jt} + \beta_8 LSALES_{jt} + \beta 9 ATR_{jt} + \beta_{10} EPS_{jt} + \varepsilon_{jt} \quad (4.4)$$

Where:

$PERCIO_{jt}$: Percentage of shares held by institutional investors in firm *j* at period *t*.

$MPLD_{jt}$: score value of employee relations disclosure of firm *j* at period *t*.

$COMD_{jt}$: score value of community involvement disclosure of firm *j* at period *t*.

$PROD_{jt}$: score value of product disclosure of firm *j* at period *t*.

$ENVD_{jt}$: score value of environment disclosure of firm *j* at period *t*.

$BETA_{jt}$: the systematic risk of firm *j* at period *t*.

LEV_{jt} : total debt to total assets of firm *j* at period *t*.

$LSIZE_{jt}$: measured by natural logarithm total assets of firm *j* at period *t*.

$LSALES_{jt}$: measured by natural logarithm total sales of firm *j* at period *t*.

ATR_{jt} : ratio of total sales to total assets of firm *j* at period *t*.

EPS_{jt} : ratio of net earnings to number of shares outstanding of firm *j* at period *t*.

ε_{jt} : error term.

Model 5: Relationship between CSRD and IO on CFP

This model is constructed to examine the relationship of both CSRD and IO on CFP. Three measures of CFP are used, namely return on assets (ROA), stock return (Ri) and Tobin's *q* ratio (Q), two independent variables and six control variables are also used to estimate the following multiple regression equation model:

$$CFP_{jt} = \beta_0 + \beta_1 CSRD_{jt} + \beta_2 PERCIO_{jt} + \beta_3 BETA_{jt} + \beta_4 LEV_{jt} + \beta_5 LSIZE_{jt} + \beta_6 LSALES_{jt} + \beta_7 ATR_{jt} + \beta_8 EPS_{jt} + \varepsilon_{jt} \quad (4.5)$$

Where:

CFP_{jt} : three alternatives of CFP variables presented by ROA, Ri_{jt} and Q_{jt}

$CSRD_{jt::}$ CSRD score value of firm *j* at period *t*.

$PERCIO_{jt}$: percentage of shares held by institutional investors of firm *j* at period *t*.

$BETA_{jt}$: the systematic risk of firm *j* at period *t*.

LEV_{jt} : total debt to total assets of firm *j* at period *t*.

$LSIZE_{jt}$: measured by natural logarithm total assets of firm *j* at period *t*.

$LSALES_{jt}$: measured by natural logarithm total sales of firm *j* at period *t*.

ATR_{jt} : ratio of total sales to total assets of firm *j* at period *t*.

EPS_{jt} : ratio of net earnings to number of shares outstanding of firm *j* at period *t*.

ε_{jt} : error term.

The equation of these regressions will be used on the panel data comprising cross sectional and time series data observations. The panel data usually gives the researcher a large number of data points increasing the degree of freedom and reducing collinearity among the independent variables while also improving statistical estimates efficiency (Hsiao, 2003). The panel data is also utilized to analyze the dynamic change and to improve in identifying the measured effect that cannot be obeyed in pure time series or cross-section data. The other benefit of panel data over cross-sectional data or time series data is that it enables the study of more complicated models, for instance, phenomena such as the scale of economics and technological change (Gujarati, 2003).

4.5.3. Description of Variables

A seven year period of data is used in this study beginning in 1999 and ending in 2005. The operational definition for each variable is elaborated and presented in Table 4.2.

4.6. Data Cleaning Procedure

There is a set of assumptions about how a data set will be produced by an underlying data generating process in the classical linear regression model. The theory will state a deterministic relationship between the dependent variable and independent variables (Greene, 2008). There are some procedures for testing for data cleaning, namely, multicollinearity, heteroscedasticity, and auto-correlation.

4.6.1. Multicollinearity

The testing for multicollinearity is utilised to determine and detect whether the least squares estimator has minimum or maximum variance. The consequences of multicollinearity exist, although best linear unbiased estimators (BLUE), the least squares estimators have maximum variances so that it is difficult to make estimation

accurately. For example, if there are two or more regressor variables that are correlated to each other it indicates that one or more variables are redundant. High R^2 but less significant *t*-ratios indicate that multicollinearity does exist (Gujarati, 2003).

The data is tested for multicollinearity by using Pearson's correlation and the condition index (CI) as well as the variance inflation factor (VIF). The diagnostic result of multicollinearity problem can be derived through the condition index:

$$CI = \sqrt{\frac{\text{Maximum eigenvalue}}{\text{Minimum eigenvalue}}} \tag{4.6}$$

Condition Index (CI) can be used to detect multicollinearity. If the value of CI is between 10 and 30, these indicate moderate to strong multicollinearity and if it exceeds 30, there is serious multicollinearity. VIF is also a tool to detect multicollinearity in which case the larger the value of VIF (more than 10) the more serious or collinear the regressor variables.

Table 4.2
Description of Variables

Variable	Variable Description	References
Dependent Variables:		
Return on assets (ROA)	Net operating income divided by total assets for company *j* period *t*.	Elsyaed and Paton (2005); Tsoutsoura (2004); Simpson and Kohers (2002); Johnson and Greening (1999); Waddock and Graves (1997); McGuire et al. (1988).
Stock return (R_{jt})	the stock price company *j* period *t* minus stock price company *j* period *t-1* to stock price company *j* period $t-_1$	Han and Suk (1998); Abbort and Mosen (1979); Alexander and Buchholz (1978).
Tobin's *q* (Q)	[(year-end market value of common stock + year-end book value of preferred stock + year-end book value of debt) to year-end book value of total assets]	Elsayed and Paton (2005); Demsetz and Villalonga (2001).
Institutional Ownership (PERCIO)	Percentage of shares owned by institutional investors	Mahonney and Roberts (2007); Cox et al. (2004); Johnson and Greening (1999); Graves and Waddock (1994); Coffey and Fryxell (1991).
Independent Variables:		
Corporate Social Responsibility Disclosure (CSRD)	total score index value of corporate social responsibility disclosure	Mahoney and Roberts (2007); Al-Tuwaijri et al. (2004); Cox et al. (2004); Tsousoura (2004); Simpson and Kohers (2002); Graves and Waddock (1994); McGouire et al. (1988); Cochran and Wood (1984).
Employee dimension (MPLD)	Score index value of employee dimension disclosure	Mahoney and Roberts (2007); Cox et al. (2004); Johnson and Greening (1999); Coffey and Fryxell (1991).
Community involvement dimension (COMD)	Score index value of community involvement dimension disclosure	Mahoney and Roberts (2007); Cox et al. (2004); Johnson and Greening (1999).

Table 4.2 (continued)

Product dimension (PROD)	Score index value of product dimension disclosure	Mahoney and Roberts (2007); Johnson and Greening (1999).
Environmental dimension (ENVD)	Score index value of environment dimension disclosure	Mahoney and Robert (2007); Elsayed and Paton (2005): Wagner (2005); Cox et al. (2004); Salama (2004); Johnson and Greening (1999).
Total sales (LSALES)	logarithm of total sales of company *j* period *t*.	Elsayed and Paton (2005); Wagner (2005); Tsoutsoura (2004); Johnson and Greening (1999); Graves and Waddock (1994); McGuire et al. (1988).
Leverage (LEV)	ratio total debt to total assets	Tsoutsoura (2004); Graves and Waddock (1994); McGuire et al. (1988).
Systematic risk (BETA)	systematic risk estimated over the 48 months prior to the sample period of company *j* at period *t*	Salama (2004); Demsetz and Villalonga (2001); McGuire et al. (1988).
Size of company, (LSIZE)	natural logarithm of the total assets for company *j* period *t*	Elsayed and Paton (2005); Wagner (2005); Cox et al. (2004); Salama (2004); Demsetz and Villalonga (2001).
Asset turnover ratio, (ATR)	total sales of company *j* period *t* divided by their total assets period *t*	Wagner (2005); Cochran and Wood (1984).
Earnings per share (EPS)	Net earnings divided by number of shares outstanding of the company *j* period *t*	Parket and Ellbirt (1975).

4.6.2. Heteroscedasticity

The problem of autocorrelation is usually predicted in time series data. Conversely, heteroscedasticity is generally found in the cross-sectional data. The classic linear regression model assumes that disturbances (ε_j) of the observation regression function are homoscedastic. If homoscedasticity is rejected, there is a sign that the estimates of the parameters obtained by the OLS technique are no longer minimum variance unbiased estimators over time and the estimate explanatory variables becomes inefficient (Gujarati, 2003).

To solve the problem of heteroscedasticity, the tool used is the *White Heteroscedasticity Consistent Variance*, which is available in the statistical and econometric software. This study employed E-Views Software for the Statistical and Econometrics Analysis. There is an important test if the model obtains a heteroscedasticity problem. It provides correct estimates for the coefficient covariances in the existence of heteroscedasticity of unknown form. Hence, we can employ the *White's General Heteroscedasticity Test* (Gujarati, 2003: 413-14).

In order to find the consistent variance of disturbance-terms ($\varepsilon^{\wedge 2}_j$) this test is done by using the equations (4.1), (4.2), (4.3), (4.4) and (4.5) as the followings:

Model 1: Auxiliary regression of equation (4.1):

$$\varepsilon^{\wedge 2}_j = \Phi_0 + \Phi_1 CSRD + \Phi_2 CSRD2 + \Phi_3 CSRD*BETA + \Phi_4 CSRD*LEV + \Phi_5 CSRD*LSIZE + \Phi_6 CSRD*LSALES + \Phi_7 CSRD*ATR + \Phi_8 CSRD*EPS + \Phi_9 BETA + \Phi_{10} BETA2 + \Phi_{11} BETA*LEV + \Phi_{12} BETA*LSIZE + \Phi_{13} BETA*LSALES + \Phi_{14} BETA*ATR + \Phi_{15} BETA*EPS + \Phi_{16} LEV + \Phi_{17} LEV2 + \Phi_{18} LEV*LSIZE + \Phi_{19} LEV*LSALES + \Phi_{20} LEV*ATR \Phi_{21} LEV*EPS + \Phi_{22} LSIZE + \Phi_{23} LSIZE2 + \Phi_{24} LSIZE*LSALES + \Phi_{25} LSIZE*ATR + \Phi_{26} LSIZE*EPS + \Phi_{27} LSALES + \Phi_{28} LSALES2 + \Phi_{29} LSALES*ATR + \Phi_{30} LSALES**EPS + \Phi_{31} ATR + \Phi_{32} ATR2 + \Phi_{33} ATR* EPS + \Phi_{34} EPS + \Phi_{35} EPS2 + \varepsilon_{jt} \quad (4.7)$$

Model 2: Auxiliary regression of equation (4.2):

$$\varepsilon_j^{\wedge 2} = \Omega_0 + \Omega_1 EMPL + \Omega_2 EMPL2 + \Omega_3 EMPL*COM + \Omega_4 EMPL*PROD + \Omega_5 EMPL*ENV + \Omega_6 EMPL*BETA + \Omega_7 EMPL*LEV + \Omega_8 EMPL*LSIZE + \Omega_9 EMPL*LSALES + \Omega_{10} EMPL*ATR + \Omega_{11} EMPL*EPS + \Omega_{12} COM + \Omega_{13} COM2 + \Omega_{14} COM*PROD + \Omega_{15} COM*ENV + \Omega_{16} COM*BETA + \Omega_{17} COM*LEV + \Omega_{18} COM*LSIZE + \Omega_{19} COM*LSALES + \Omega_{20} COM*ATR + \Omega_{21} COM*EPS + \Omega_{22} PROD + \Omega_{23} PROD2 + \Omega_{24} PROD*ENV + \Omega_{25} PROD*BETA + \Omega_{26} PROD*LEV + \Omega_{27} PROD*LSIZE + \Omega_{28} PROD*LSALES + \Omega_{29} PROD*ATR + \Omega_{30} PROD*EPS + \Omega_{31} ENV + \Omega_{32} ENV2 + \Omega_{33} ENV*BETA + \Omega_{34} ENV*LEV + \Omega_{35} ENV*LSIZE + \Omega_{36} ENV*LSALES + \Omega_{37} ENV*ATR + \Omega_{38} ENV*LSALES + \Omega_{39} BETA + \Omega_{40} BETA2 + \Omega_{41} BETA*LEV + \Omega_{42} BETA*LSIZE + \Omega_{43} BETA*LSALES + \Omega_{44} BETA*ATR + \Omega_{45} BETA*EPS + \Omega_{46} LEV + \Omega_{47} LEV2 + \Omega_{48} LEV*LSIZE + \Omega_{49} LEV*LSALES + \Omega_{50} LEV*ATR + \Omega_{51} LEV*EPS + \Omega_{52} LSIZE + \Omega_{53} LSIZE2 + \Omega_{54} LSIZE*LSALES + \Omega_{55} LSIZE*ATR + \Omega_{56} LSIZE*EPS + \Omega_{57} LSALES + \Omega_{58} LSALES2 + \Omega_{59} LSALES*ATR + \Omega_{60} LSALES*EPS + \Omega_{61} ATR + \Omega_{62} ATR2 + \Omega_{63} ATR*EPS + \Omega_{64} EPS + \Omega_{65} EPS2 + \varepsilon_{jt} \quad (4.8)$$

Model 3: Auxiliary regression of equation (4.3):

$$\varepsilon_j^{\wedge 2} = X_0 + X_1 CSRD + X_2 CSRD2 + X_3 CSRD*X + X_4 CSRD*BETA + X_5 CSRD*LEV + X_6 CSRD*LSIZE + X_7 CSRD*LSALES + X_8 CSRD*ATR + X_9 CSRD*EPS + X_{10} X + X_{11} X2 + X_{12} X*BETA + X_{13} X*LEV + X_{14} X*LSIZE + X_{15} X*LSALES + X_{16} X*ATR + X_{17} X*EPS + X_{18} BETA + X_{19} BETA2 + X_{20} BETA*LEV + X_{21} BETA*LSIZE + X_{22} BETA*LSALES + X_{23} BETA*ATR + X_{24} BETA*EPS + X_{25} LEV + X_{26} LEV2 + X_{27} LEV*LSIZE + X_{28} LEV*LSALES + X_{29} LEV*ATR + X_{30} LEV*EPS + X_{31} LSIZE + X_{32} LSIZE2 + X_{33} LSIZE*LSALES + X_{34} LSIZE*ATR + X_{35} LSIZE*EPS + X_{36} LSALES + X_{37} LSALES2 + X_{38} LSALES*ATR + X_{39} LSALES*EPS + X_{40} ATR + X_{41} ATR2 + X_{42} ATR*EPS + X_{43} EPS + X_{44} EPS2 + \varepsilon_{jt} \quad (4.9)$$

Model 4: Auxiliary regression of equation (4.4):

$$\varepsilon_j^{\wedge 2} = \ddot{Y}_0 + \ddot{Y}_1 EMPL + \ddot{Y}_2 EMPL2 + \ddot{Y}_3 EMPL*COM + \ddot{Y}_4 EMPL*PROD + \ddot{Y}_5 EMPL*ENV + \ddot{Y}_6 EMPL*X + \ddot{Y}_7 EMPL*BETA + \ddot{Y}_8 EMPL*LEV + \ddot{Y}_9 EMPL*LSIZE + \ddot{Y}_{10} EMPL*LSALES + \ddot{Y}_{11} EMPL*ATR + \ddot{Y}_{12} EMPL*EPS + \ddot{Y}_{13} COM + \ddot{Y}_{14} COM2 + \ddot{Y}_{15} COM*ENV + \ddot{Y}_{16} COM*X + \ddot{Y}_{17} COM*BETA + \ddot{Y}_{18} ENV*LEV + \ddot{Y}_{20} ENV*LSIZE + \ddot{Y}_{21} ENV*LSALES + \ddot{Y}_{22} ENV*ATR + \ddot{Y}_{23} ENV*EPS + \ddot{Y}_{24} X + \ddot{Y}_{25} X2 + \ddot{Y}_{26} X*BETA + \ddot{Y}_{27} X*LEV + \ddot{Y}_{28} X*LSIZE + \ddot{Y}_{29} X*LSALES + \ddot{Y}_{30} X*ATR + \ddot{Y}_{31} X*EPS + \ddot{Y}_{32} BETA + \ddot{Y}_{33} BETA2 + \ddot{Y}_{34} BETA*LEV + \ddot{Y}_{35} BETA*LSIZE + \ddot{Y}_{36} BETA*LSALES + \ddot{Y}_{37} BETA*ATR + \ddot{Y}_{38} BETA*LSALES + \ddot{Y}_{39} LEV + \ddot{Y}_{40} LEV2 + \ddot{Y}_{41} LEV*LSIZE + \ddot{Y}_{42} LEV*LSALES + \ddot{Y}_{43} LEV*ATR + \ddot{Y}_{44} LEV*LSALES + \ddot{Y}_{45} LEV*ATR + \ddot{Y}_{46} LEV*EPS + \ddot{Y}_{47} LSIZE + \ddot{Y}_{48} LSIZE2 + \ddot{Y}_{49} LSIZE*LSALES + \ddot{Y}_{50} LSIZE*ATR + \ddot{Y}_{51} LSIZE*EPS + \ddot{Y}_{52} LSALES + \ddot{Y}_{53} LSALES2 + \ddot{Y}_{54} LSALES*ATR + \ddot{Y}_{55} LSALES*EPS + \ddot{Y}_{56} ATR + \ddot{Y}_{57} ATR2 + \ddot{Y}_{58} ATR*EPS + \ddot{Y}_{59} EPS + \ddot{Y}_{60} EPS2 + + \varepsilon_{jt} \quad (4.10)$$

Model 5: Auxiliary regression of equation (4.5):

$$\varepsilon_j^{\wedge 2} = \Psi_0 + \Psi_1 CSRD + \Psi_2 CSRD2 + \Psi_3 CSRD*PERCIO + \Psi_4 CSRD*BETA + \Psi_5 CSRD*LEV + \Psi_6 CSRD*LSIZE + \Psi_7 CSRD*LSALES + \Psi_8 CSRD*ATR + \Psi_9 CSRD*EPS + \Psi_{10} PERCIO + \Psi_{11} PERCIO2 + \Psi_{12} PERCIO*BETA + \Psi_{13} PERCIO*LEV + \Psi_{14} PERCIO*LSIZE + \Psi_{15} PERCIO*LSALES + \Psi_{16} PERCIO*ATR + \Psi_{17} PERCIO*EPS + \Psi_{18} BETA + \Psi_{19} BETA2 + \Psi_{20} BETA*LEV + \Psi_{21} BETA*LSIZE + \Psi_{22} BETA*LSALES + \Psi_{23} BETA*ATR + \Psi_{24} BETA*EPS + \Psi_{25} LEV + \Psi_{26} LEV2 + \Psi_{27} LEV*LSIZE + \Psi_{28} LEV*LSALES + \Psi_{29} LEV*ATR + \Psi_{30} LEV*EPS + \Psi_{31} LSIZE + \Psi_{32} LSIZE2 + \Psi_{33} LSIZE*LSALES + \Psi_{34} LSIZE*ATR + \Psi_{35} LSIZE*EPS + \Psi_{36} LSALES + \Psi_{37} LSALES2 + \Psi_{38} LSALES*ATR + \Psi_{39} LSALES*EPS + \Psi_{40} ATR + \Psi_{41} ATR2 + \Psi_{42} ATR* EPS + \Psi_{43} EPS + \Psi_{44} EPS2 + \varepsilon_{jt} \quad (4.11)$$

where:

$\varepsilon_j^{\wedge 2}$ = variance of disturbances of multiple regression model in equations (4.1), (4.2), (4.3), (4.4) and (4.5).

In additional, from the auxiliary regression above, R^2 is obtained. Under the null hypothesis, there is homoscedasticity. It can be shown that the number of observations (n) times the R^2 obtains the chi-square distribution:

$$n.R^2 \underset{asy}{\approx} \chi^2_{df} \quad (4.12)$$

The conclusion is that there is heteroscedasticity if the chi-square value obtained in equations (4.12) exceeds the critical chi-square value at the chosen level of significance.

4.6.3. Autocorrelation

The classical regression linear model assumes that the disturbance term relating to any observation is not influenced by the disturbance term relating to any other observation. The most popular test for detecting serial correlation is the Durbin-Watson *d* statistic. It is a test for first-order serial correlation, which is calculated as:

$$d = \frac{\sum_{t=2}^{t=n} (\hat{u}_t - \hat{u}_{t-1})^2}{\sum_{t=1}^{t=n} \hat{u}_t^2} \quad (4.13)$$

The ratio of sum of squared is the differences in successive residuals to the *RSS*. The numerator of the *d* statistic is the number of observations n-1 because one observation is lost in taking successive differences.

If there is no serial correlation, the *DW* statistic will be around 2. The *DW* statistic will fall below 2 if there is positive serial correlation (in the worst case, it will be near zero). If there is a negative correlation, the statistic will lie somewhere between 2 and 4. Positive serial correlation is the most commonly observed form of dependence. As a rule of thumb, with 50 or more observations and only a few independent variables, a *DW* statistic below about 1.5 is a strong indication of positive first order serial correlation (Johnston and DiNardo, 1997).

4.7. Estimation Method of the Relationship between CSRD, CFP and IO

The analysis of the relationship between CSRD and CFP as well as IO in this study involves an estimation procedure based on a panel data model in which the indicators used to measure CSRD are considered to influence the financial performance and percentage of shares held by institutional investors. There are two estimation methods, namely, the pooled ordinary least squares (OLS) method and the generalized least squares (GLS) method are utilized in this study.

4.7.1. Pooled Ordinary Least Squares Method

Panel data analysis is a combination or pooling of cross-sectional and time-series data involving 1,400 observations of 200 PLCs during the period of 1999 to 2005. The

OLS method assumes that the model's parameters are equalled across companies and are stable over time. The OLS adopts the condition of minimizing the unweighed $\sum \hat{} \varepsilon_j^2$ (residual sum of squares). Each residual is given equal weight even though some of the residuals are much closer to the sample regression function. That means all residuals receive equal importance (unweighed) no matter how close or how widely the individual observations are scattered from the sample regression function.

There are five equations constructed for OLS estimation of the pooled models to examine the relationship between CSRD, CFP and IO. The estimating equation of the relationship between CSRD, CFP and IO is presented in equation 4.1, 4.2, 4.3, 4.4 and 4.5 (see in section 4.5.2).

4.7.2. Generalized Least Squares Method.

OLS with pooled cross sectional and time-series specification assumes that all the companies have the same behaviour with respect to the explanatory variables. In other words, it is assumed that the slope and intercept of the companies are continually across the individual and time. However data structure using the OLS method faces problems for two causes; 1) although the pooled model produces consistent estimates of the regression coefficients, the standard errors will be understated and the level of significance is overstated. 2) Compared with the GLS method, the OLS method does not produce efficient estimates of the regression coefficients if panel data is employed (Johnston and DiNardo, 1997).

The Generalized Least Squares (GLS) minimizes the weighted sum of residual squares. In short, "GLS is OLS on the transformed variables that satisfy the standard least squares assumptions" (Gujarati, 2003: 396). There are two assessment techniques that

are often used in GLS method for the panel data analysis, namely the fixed effects model and the random effects model. According to Wagner (2005) the difference between the fixed effects and the random effects model is based on whether the effects of time-invariant are linked to the explanatory variables. If time-invariant in the regression model is correlated to independent variables, it is the case of the fixed effects model, and vice versa, if time-invariant does not correlate to independent variables, it is the case of the random effects model.

4.7.2.1. Hausman Testing

Hausman testing is utilized in this study to decide whether the fixed effect or the random effect is the appropriate model to explain the relationship between CSRD and CFP as well as IO. The underlying idea of the Hausman test is to compare two sets of estimates, one of which is consistent under both the null and the alternative and another is consistent only under the null hypothesis (Greene, 2008).

Johnston and DiNardo (1997) noticed that there are two estimators that have different properties hanging on the correlation among time-invariant on the effect of the individual-specific and the explanatory variables. First, if the effect is uncorrelated to explanatory variables, the random effect model (REM) is consistent and efficient. The fixed effect model (FEM) estimator is consistent but inefficient. Second, if the effect is connected with regressor variables, the fixed effect estimator is consistent and efficient but the random effect estimator is not consistent.

The Hausman testing uses the Wald criterion to test the Chi-Square as the following equation:

$$W = \chi^2 [M - 1] = [a - \alpha]' \psi^{-1} [a - \alpha] \quad (4.14)$$

Where *W* is the Wald criterion, [a - α] is the covariance matrix of the difference vector, *M* is the degree of freedom and ψ is the covariance matrix for the test. If the test value of Chi-square is higher than the critical value, the null hypothesis is rejected and the fixed effect is a better estimation method.

4.7.2.2. Fixed Effect Model

In the fixed effects model, the intercept in the regression model is allowed to differ between individuals in recognition of the fact that each individual or cross-sectional unit representative possibly has special personal characteristics. In conclusion, the fixed effects model can be written as the following equations:

Model 1: The Relationship between CSRD and CFP:

$$CFP_{jt} = \delta_j + \delta_1 CSRD_{jt} + \delta_2 BETA_{jt} + \delta_3 LEV_{jt} + \delta_4 LSIZE_{jt} + \delta_5 LSALES_{jt} + \delta_6 ATR_{jt} + \delta_7 EPS_{jt} + \varepsilon_{jt} \quad (4.15)$$

Where:

δ_j (the heterogeneity or individual effect) = $\acute{z}_j\delta$, if z_j contains an intercept term and a set of unobserved individual effect correlated with explanatory variables.

Model 2: The Relationship between Dimensions of CSRD and CFP:

$$CFP_{jt} = \zeta_j + \zeta_1 MPLD_{jt} + \zeta_2 COMD_{jt} + \zeta_3 PROD_{jt} + \zeta_4 ENVD_{jt} + \zeta_5 BETA_{jt} + \zeta_6 LEV_{jt} + \zeta_7 LSIZE_{jt} + \zeta_8 LSALES_{jt} + \zeta_9 ATR_{jt} + \zeta_{10} EPS_{jt} + \varepsilon_{jt} \quad (4.16)$$

Where:

ζ_j (the heterogeneity or individual effect) = $\acute{z}_j\zeta$, if z_j contains an intercept term and a set of unobserved individual effect correlated with explanatory variables.

Model 3: The Relationship between CSRD and IO:

$$PERCIO_{jt} = \eta_j + \eta_1 CSRD_{jt} + \eta_2 BETA_{jt} + \eta_3 LEV_{jt} + \eta_4 LSIZE_{jt} + \eta_5 LSALES_{jt} + \eta_6 ATR_{jt} + \eta_7 EPS_{jt} + \varepsilon_{jt} \quad (4.17)$$

Where:

η_j (the heterogeneity or individual effect) = $\acute{z}_j\eta$, if z_j contains an intercept term and a set of unobserved individual effect correlated with explanatory variables.

Model 4: The Relationship between Dimension of CSRD and IO:

$$PERCIO_{jt} = \theta_j + \theta_1 MPLD_{jt} + \theta_2 COMD_{jt} + \theta_3 PROD_{jt} + \theta_4 ENVD_{jt} + \theta_5 BETA_{jt} + \theta_6 LEV_j + \theta_7 LSIZE_{jt} + \theta_8 LSALES_{jt} + \theta_9 ATR_{jt} + \theta_{10} EPS_{jt} + \varepsilon_{jt} \quad (4.18)$$

Where:

θ_j (the heterogeneity or individual effect) = $\acute{z}_j\theta$, if z_j contains an intercept term and a set of unobserved individual effect correlated with explanatory variables.

Model 5: The Relationship between CSRD and IO on CFP:

$$CFP_{it} = \lambda_j + \lambda_1 CSRD_{jt} + \lambda_2 PERCIO_{jt} + \lambda_3 BETA_{jt} + \lambda_4 LEV_{jt} + \lambda_5 LSIZE_{jt} + \lambda_6 LSALES_{jt} + \lambda_7 ATR_{jt} + \lambda_8 EPS_{jt} + \varepsilon_{jt} \quad (4.19)$$

Where:

λ_j (the heterogeneity or individual effect) = $\acute{z}_j\lambda$, if z_j contains an intercept term and a set of unobserved individual effect correlated with explanatory variables.

The subscript $_j$ in the intercept term is included to suggest that the intercept of all companies in the sample may be different. The differences may be due to differences in level of leverage, size of assets, risk level or companies' earnings. Although the intercept may differ across individual companies, each individual intercept does not vary over time, which is time invariant. In conclusion, for the fixed effect, it allows for the intercept to vary between companies and it includes the dummy variables technique. In other words, the fixed effects model which assumes the differences across the units is explained by constant variables. The estimation on unobserved fixed

effects considers the cross-section of δ_j, ζ_j, η_j, θ_j, and λ_j to be different for each company by estimating the differences on each cross-sectional.

4.7.2.3. Random Effect Model

In the case of the random effects model, the unobserved individual heterogeneity is assumed to be uncorrelated with the explanatory variables (Grenee, 2008). Instead of treating δ_j, ζ_j, η_j, θ_j, and λ_j as fixed, it is assumed that it is a random variable with a mean value of δ, ζ, η, θ, and λ, (no subscript $_j$) and the intercept value for an individual company for all models can be expressed as:

$$\delta_j = \delta + \mu_j \qquad j = 1, 2, \ldots, N \tag{4.20}$$

$$\zeta_j = \zeta + \mu_j \qquad j = 1, 2, \ldots, N \tag{4.21}$$

$$\eta_j = \eta + \mu_j \qquad j = 1, 2, \ldots, N \tag{4.22}$$

$$\theta_j = \theta + \mu_j \qquad j = 1, 2, \ldots, N \tag{4.23}$$

$$\lambda_j = \lambda + \mu_j \qquad j = 1, 2, \ldots, N \tag{4.24}$$

where μ_j is a random error term with a zero mean value and variance of $\sigma\mu^2$. It means that these samples have a general mean value for the intercept (δ, ζ, η, θ, and λ) and the individual differences in the intercept values of every company are reflected in the error term μ_j. Substituting equation (4.20) into (4.15), (4.21) into (4.16), (4.22) into (4.17), (4.23) into (4.18) and (4.24) into (4.19) will lead to the following finding:

Model 1: The Relationship between CSRD and IO:

$$CFP_{it} = \delta + \delta_1 CSRD_{jt} + \delta_2 BETA_{jt} + \delta_3 LEV_{jt} + \delta_4 LSIZE_{jt} + \delta_5 LSALES_{jt} + \delta_6 ATR_{jt} + \delta_7 EPS_{j\,t} + \pi_{jt} \tag{4.25}$$

Model 2: The Relationship between Dimension of CSRD and IO:

$$CFP_{it} = \zeta + \zeta_1 MPLD_{jt} + \zeta_2 COMD_{jt} + \zeta_3 PROD_{jt} + \zeta_4 ENVD_{jt} + \zeta_5 BETA_{jt} + \zeta_6 LEV_{jt} + \zeta_7 LSIZE_{jt} + \zeta_8 LSALES_{jt} + \zeta_9 ATR_{jt} + \zeta_{10} EPS_{jt} + \rho_{jt} \quad (4.26)$$

Model 3: The Relationship between CSRD and IO:

$$PERCIO_{jt} = \eta + \eta_1 CSRD_{jt} + \eta_2 BETA_{jt} + \eta_3 LEV_{jt} + \eta_4 LSIZE_{jt} + \eta_5 LSALES_{jt} + \eta_6 ATR_{jt} + \eta_7 EPS_{jt} + \varsigma_{jt} \quad (4.27)$$

Model 4: The Relationship between Dimension of CSRD and IO:

$$PERCIO_{jt} = \theta + \theta_1 MPLD_{jt} + \theta_2 COMD_{jt} + \theta_3 PROD_{jt} + \theta_4 ENVD_{jt} + \theta_5 BETA_{jt} + \theta_6 LEV_{jt} + \theta_7 LSIZE_{jt} + \theta_8 LSALES_{jt} + \theta_9 ATR_{jt} + \theta_{10} EPS_{jt} + \sigma_{jt} \quad (4.28)$$

Model 5: The Relationship between CSRD and IO on CFP:

$$CFP_{it} = \lambda + \lambda_1 CSRD_{jt} + \lambda_2 PERCIO_{jt} + \lambda_3 BETA_{jt} + \lambda_4 LEV_{jt} + \lambda_5 LSIZE_{jt} + \lambda_6 LSALES_{jt} + \lambda_7 ATR_{jt} + \lambda_8 EPS_{jt} + \tau_{jt} \quad (4.29)$$

where :

$$\pi_{jt} = \mu_j + \varepsilon_{jt} \quad (4.30)$$

$$\rho_{jt} = \mu_j + \varepsilon_{jt} \quad (4.31)$$

$$\varsigma_{jt} = \mu_j + \varepsilon_{jt} \quad (4.32)$$

$$\sigma_{jt} = \mu_j + \varepsilon_{jt} \quad (4.33)$$

$$\tau_{jt} = \mu_j + \varepsilon_{jt} \quad (4.34)$$

In the above models the total of each error term; π_{jt}, ρ_{jt},, ς_{jt} σ_{jt} and $\tau_{jt,}$ consists of two component error terms, the cross-section or individual error component (μ_j) and error term at combined time series and cross-section error component (ε_{jt}). Under the

assumption that the individual error components are not correlated with each other and not autocorrelated across both cross-section and time series units, the following holds:

$$E(\pi_{jt}) = 0 \tag{4.35}$$

$$E(\rho_{jt},) = 0 \tag{4.36}$$

$$E(\varsigma_{jt}) = 0 \tag{4.37}$$

$$E(\sigma_{jt}) = 0 \tag{4.38}$$

$$E(\tau_{jt,}) = 0 \tag{4.39}$$

$$\mathrm{Var}(\pi_{jt}) = \sigma_\mu^2 + \sigma_\varepsilon^2 \tag{4.40}$$

$$\mathrm{Var}(\rho_{jt},) = \sigma_\mu^2 + \sigma_\varepsilon^2 \tag{4.41}$$

$$\mathrm{Var}(\varsigma_{jt}) = \sigma_\mu^2 + \sigma_\varepsilon^2 \tag{4.42}$$

$$\mathrm{Var}(\sigma_{jt}) = \sigma_\mu^2 + \sigma_\varepsilon^2 \tag{4.43}$$

$$\mathrm{Var}(\tau_{jt,}) = \sigma_\mu^2 + \sigma_\varepsilon^2 \tag{4.44}$$

The error-terms at equations (4.35), (4.36), (4.37), (4.38) and (4.39) are assumed homoscedastic. However, it can be shown that error-terms are correlated for a given cross-sectional unit at two different points in time. The correlation coefficient, $\mathrm{corr}(\pi_{jt}, \pi_{js})$, $\mathrm{corr}(\rho_{jt}, \rho_{js})$, $\mathrm{corr}(\varsigma_{jt}, \varsigma_{js})$, $\mathrm{corr}(\sigma_{jt}, \sigma_{js})$ and $\mathrm{corr}(\tau_{jt,} \tau_{js})$ are as the following equations:

$$\mathrm{Corr}(\pi_{jt}, \pi_{js}) = \frac{\sigma_\mu^2}{\sigma_\mu^2 + \sigma_\varepsilon^2} \tag{4.45}$$

$$\mathrm{Corr}(\rho_{jt}, \rho_{js}) = \frac{\sigma_\mu^2}{\sigma_\mu^2 + \sigma_\varepsilon^2} \tag{4.46}$$

$$\mathrm{Corr}(\varsigma_{jt}, \varsigma_{js}) = \frac{\sigma_\mu^2}{\sigma_\mu^2 + \sigma_\varepsilon^2} \tag{4.47}$$

$$\text{Corr}(\sigma_{jt}, \sigma_{js}) = \frac{\sigma_\mu^2}{\sigma_\mu^2 + \sigma_\varepsilon^2} \quad (4.48)$$

$$\text{Corr}(\tau_{jt}, \tau_{js}) = \frac{\sigma_\mu^2}{\sigma_\mu^2 + \sigma_\varepsilon^2} \quad (4.49)$$

There are two features of correlation coefficients; i) the value of correlation between error terms at two different times remains the same at any cross-sectional unit; ii) the structure of correlation in the equations (4.45), (4.46), (4.47), (4.48) and (4.49) are the same for all cross-sectional units.

In conclusion, the differences between the fixed effects model (FEM) and the random effects model (REM) is in FEM as every cross-sectional or company has its own (fixed) intercept value. On the other hand, in the REM, the intercept for each of the five models (δ, ζ, η, θ and λ), represents the mean value of all (cross-sectional) intercepts and the error component, μ_j represents the (random) deviation of individual intercept from these mean values. Again, "the crucial distinction between fixed and random effects is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not" (Greene, 2008:183). Deciding which one between both models, whether FEM or REM is more suitable in analysis the relationship between CSRD and CFP as well as IO in this study, the Hausman testing is utilized to determine its appropriateness in explaining the variables effects.

4.7.2.4. Two-ways Fixed Effects

This model merges individual (cross-sectional) effects and time effects. Time effects will be used to examine the change in the internal and external of company's policy

that will have any impact on CFP and IO. The objective of this procedure is to strengthen the testing for the models which are utilized. Generally, the testing the two-way fixed effects model is to find the effect of the policy of each individual company toward the performance of the company from one period to another which involve panel data analysis. For that purpose, this study introduces a time dummy for years 1999, 2000, 2001, 2002, 2003, 2004 and 2005. Six year dummies are used to avoid perfect collinearity (Gujarati, 2003). The dummy variable D_{1999} is equal to one for year 1999 and equal to zero for each other year, similarly with other time dummies. Equations (4.15) and (4.17) are rewritten as follows:

Model 1: The Relationship between CSRD and CFP: with time dummy

$$CFP_{it} = \alpha + \gamma_1 D_{1999} + \gamma_2 D_{2000} + \gamma_3 D_{2001} + \gamma_4 D_{2002} + \gamma_5 D_{2003} + \gamma_6 D_{2004} + \gamma_7 D_{2005} + \delta_1 CSRD_{jt} + \delta_2 BETA_{jt} + \delta_3 LEV_{jt} + \delta_4 LSIZE_{jt} + \delta_5 LSALES_{jt} + \delta_6 ATR_{jt} + \delta_7 EPS_{jt} + \varepsilon_{jt} \quad (4.50)$$

Model 2: The Relationship between CSRD and IO: with time dummy

$$PERCIO_{jt} = \gamma + \varsigma_1 D_{1999} + \varsigma_2 D_{2000} + \varsigma_3 D_{2001} + \varsigma_4 D_{2002} + \varsigma_5 D_{2003} + \varsigma_6 D_{2004} + \varsigma_7 D_{2005} + \eta_1 CSRD_{jt} + \eta_2 BETA_{jt} + \eta_3 LEV_{jt} + \eta_4 LSIZE_{jt} + \eta_5 LSALES_{jt} + \eta_6 ATR_{jt} + \eta_7 EPS_{jt} + \varepsilon_{jt} \quad (4.51)$$

where D_{1999}, D_{2000}, D_{2001}, D_{2002}, D_{2003}, D_{2004}, and D_{2005} = would be dummy for time.

4.8. Summary

Research design and methodology are discussed in this chapter. There are two approaches of research employed in this study comprising content analysis and secondary data analysis. The initial observation consists of 200 large companies taken from 474 PLCs on Bursa Malaysia for the period of 1999 to 2005. The research-design

utilized in this study is an explanation of the methods and procedures for data collection, analysis and reporting. This study uses longitudinal data analysis by using five multiple regression equation models to examine the relationship between CSRD, CFP and IO. The estimation procedures are begun by performing the pooled OLS model, and followed by GLS with fixed effect as well as random effects models.

CHAPTER FIVE
DATA ANALYSIS

5.1. Introduction

This chapter reports on the data analysis which is divided into two main sections, namely CSRD analysis and hypotheses testing analysis. The chapter starts with CSRD analysis using content analysis and descriptive statistics of CSRD in section 5.2, which has been organized as content analysis for the following dimensions as follows; employee relations; community involvement; product; environment; as well as content analysis based on industrial category. Section 5.3 reports the hypotheses testing results of the relationship between CSRD and CFP, as well as IO for PLCs in Malaysia. Three sections for hypotheses testing are presented, namely preliminary data analysis, hypotheses testing results for overall sample size and hypotheses testing results based on industrial sectors. Preliminary procedures for data analysis in section 5.3.1 are outlined as follows: section 5.3.1.1 reports data cleaning and screening; and section 5.3.1.2 presents the sensitivity analysis and robustness check. Section 5.3.2 presents hypotheses testing results and is organized as follows: section 5.3.2.1 provides hypotheses testing results of CSRD and CFP; section 5.3.2.2 provides hypotheses testing results of CSRD and IO; section 5.3.2.3 provides hypothesis testing results of CSRD and IO on CFP, followed by hypotheses testing based on industry categorization in section 5.3.3. Finally section 5.4 offers a brief chapter summary.

5.2. Analysis of CSRD in the Malaysian PLCs

There are two major analyses of CSRD in this section, CSRD content analysis for overall sample size and CSRD analysis based on industrial sector. The second section analysis of descriptive statistics is based on overall sample size and industrial sector.

5.2.1. Content Analysis of CSRD

In general, CSR activities embrace all organizational activities connected with a company and its various stakeholders. CSRD refers in this study to disclosures in the following four categories; employee relations, community involvement, product and environmental. These themes are consistent with recent studies by Branco and Rodrigues (2008) and Abdul Hamid (2004) who employed four categories of CSRD, namely environment, human resources, community and product.

Table 5.1 shows the number of companies that have disclosed their CSR activities in the four categories of CSR dimensions for the period of 1999 to 2005. The highest items disclosed in each dimension by the Malaysian PLCs for the period of 1999 to 2005 are as follows:

- Employee relations; employee benefits for the period of 1999 to 2005 comprises of 128 (64%), 162 (81%), 170 (85%), 184 (92%), 185 (92.5%), 154 (77%) and 164 (82%), respectively.
- Community involvement; charity programmes for the period of 1999 to 2001 comprises of 31 (15.5%), 30 (15%) and 34 (44%), respectively. Cash donation programmes for the period of 2002 to 2003 comprises of 34 (17%) and 36 (13%), respectively. Charity programmes from 2004 to 2005 read at 56 (28%) and 55 (27.5%), respectively.
- Product; product development from 1999 to 2002 comprises 24 (12%), 34 (13%), 44 (22%), and 54 (27%), respectively. Product quality in year 2003 was at 48 (24%); and finally product development in years 2004 to 2005 comprised of 41 (20.5%) and 54 (27%), respectively.

Table 5.1
CSRD in the Annual Reports of PLCs in Malaysia

CSRD dimensions	1999		2000		2001		2002		2003		2004		2005	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
I. Employee:														
1. Health and Safety	10	5	15	7.5	24	12	29	14.5	32	16	17	8.5	26	13
2. Training and Education	30	15	39	19.5	46	23	46	23	48	24	45	22.5	46	23
3. Employees benefits	128	64	162	81	170	85	184	92	185	92.5	154	77	164	82
4. Profiles of employees	36	18	50	25	62	31	62	31	23	11.5	13	6.5	7	3.5
5. Share option for employees	60	30	94	47	107	54	107	53.5	101	50.5	67	33.5	80	40
6. Award in health and safety programme	1	0.5	4	2	5	2.5	3	1.5	8	4	2	1	3	1.5
7. Others	5	2.5	24	12	16	8	30	15	38	19	30	15	35	17.5
Total I	**240**		**388**		**430**		**461**		**435**		**328**		**361**	
II. Community involvement:														
1. Cash donation programme	27	13.5	23	11.5	24	12	34	17	36	18	40	20	52	26
2. Charity programme	31	15.5	30	15	34	44	29	14.5	28	14	56	28	55	27.5
3. Scholarship programme	13	6.5	10	5	20	10	28	14	26	13	17	8.5	29	14.5
4. Sponsor for sports activities	16	8	8	4	13	6.5	14	7	17	8.5	19	9.5	13	6.5
5. Supporting national pride	14	7	14	7	14	7	14	7	19	9.5	20	10	24	12
6. Public health project	5	2.5	10	5	12	6	18	9	24	12	10	5	5	2.5
Total II	**106**		**95**		**117**		**137**		**150**		**162**		**178**	
III. Product:														
1. Product development	24	12	34	17	44	22	54	27	44	22	41	20.5	54	27
2. Product safety	5	2.5	3	1.5	6	3	11	5.5	5	2.5	4	2	14	7
3. Product quality	16	8	30	15	31	16	51	25.5	48	24	28	14	34	17
Total III	**45**		**67**		**81**		**116**		**97**		**73**		**102**	
IV. Environment:														
1. Pollution control	7	3.5	17	8.5	28	14	24	12	30	15	7	3.5	18	9
2.Prevention/reparation programme	8	4	6	3	12	6	14	7	17	8.5	19	9.5	21	10.5
3. Conservation and recycled materials	6	3	15	7.5	13	6.5	17	8.5	18	9	4	2	13	6.5
4. Award in environment programme	4	2	3	1.5	7	3.5	4	2	9	4.5	7	3.5	9	4.5
Total IV	**25**		**41**		**60**		**59**		**74**		**37**		**61**	
Total (I+II+III+IV)	**416**		**591**	**42.06**	**688**	**16.41**	**773**	**12.35**	**756**	**-2.20**	**600**	**-20.63**	**701**	**16.83**

Notes: n = number of disclosure made by companies in the given category.
% = number of companies making at least one disclosure as percentage of total number of companies in the sample (200).For instance, The number of companies disclosing items of Health and Safety, and Training and Educations in Employee Dimension are 10 and 30 companies, thus the percentages of disclosures are 5 %={(10:200)x(100%)}, and 15%={(30:200)x100%)}.

- Environment; prevention/reparation programmes in 1999 read at8 (4%), and pollution control for the period of 2000 to 2003 comprised of 17 (8.5%), 28 (14%), 24 (12%) and 30 (15%), respectively.

Based on the results in Table 5.1, it is revealed that the CSRD level in Malaysian companies varies from time to time during the seven year period and that the number of companies choosing to make disclosures is likely to increase. On the average, the growth of CSR activity disclosures in the Malaysian PLCs over the seven year period is at approximately 10.8 percent {(42.06% + 16.41% + 12.35% - 2.20% - 20.63% + 16.83):(6)}. However, the growing degree of CSRD is still low and still does not yet fulfil the needs of stakeholders (Tan, 2007; Che Zuriana et al., 2003). The recent survey by Bursa Malaysia found that the Malaysian PLCs demonstrate less appreciation and lack of attentiveness in integrating CSR policies and disclosures in their business activities (Jason, 2008).

As far as CSRD is concerned, the Malaysian PLCs make at least one disclosure within the dimensions provided in this study. Table 5.1 shows that the highest level of dimensional disclosure is regarding employee relations, followed by community involvement, product and environment at the lowest level of disclosure. There has been a significant increase in the number of companies that provide information on CSR activities in their annual reports compared with what has been found in prior studies which utilised longitudinal analysis (see Che Zuriana et al., 2003). It was found that human resources and community involvement were the most disclosed categories by PLCs in Malaysia. The results of CSRD analysis for each dimension are elaborated in the following sections.

5.2.1.1. Employee Relations Dimension

Employee relations disclosure covers issues such as health and safety in working places, improving employee skills throughout levels of training and development programmes. Examples of employee benefits include competitive remuneration and career development. Some companies also provide wellness at work amidst comfortable and safe working conditions, employee engagement into physical and social activities and other healthy lifestyle encouragements, various employee relation activities such as organized religious activities to balance the pursuit of work with spiritual aspects, as well as supporting family day activities. Employee profiles cover employee statistics provided, total manpower strength disclosed by group and division, executive group(s) by division and management levels. Share options for employees are an important programme because it can not only enhance spirit and motivation to be involved in company ownership; the scheme serves as a method to instil a stronger ownership sense amongst staff members.

Results of the CSRD for each dimension reveal that the employee benefit category is most popular for the employee relations dimension, ranging from 128 (64 percent) and 185 (92.5 percent) of the sample for the seven years analysis. For example, the company provides help or guidance to their employees such as preparing them for their retirement process, employee accommodation and housing schemes, as well as recreation and family day activities. The second highest disclosed category in the employee relations dimension is the Executive Share Option Scheme (ESOS), where the number of companies that disclosed varied between 60 (30 percent) to 107 (54 percent). The aim of the ESOS programme for employees is to make them more responsible in operating their own companies.

Training and educational programmes are important for the employees with disclosures that varied from 30 (15 percent) to 48 (24 percent). Most companies disclose their training programmes in terms of employee training via in-house programmes, and providing financial support to the employees in continuing their education such as courses and training. The employee profile is also essential for CSRD where several companies disclosed this dimension, which displayed a range between 7 (3.5 percent) to 62 (31 percent) within the sample size. Some types of employee profiles are disclosed as follows: statistics on the number of staff, length of service in the company and age groups; the number of workers and the managerial levels involved; the number of employees in the company and/or in the respective branches and/or subsidiaries; and information provided on qualifications of recruited employees.

This result is consistent with prior studies (Haniffa and Cooke, 2005; Thompson and Zakaria, 2004; and Che Zuriana et al., 2003; and Williams and Pei, 1999) who found employee relations to be the highest disclosed dimension by the Malaysian PLCs. This indicates employee relations to be the most valuable asset for the Malaysian PLCs and that declaration of information on this dimension is vital. This is due to the assumption that good human resources management will enhance company image (Che Zuriana et al., 2003). However, this finding is contrary with other studies conducted by Nik Ahmad et al. (2003) and Kin (1990) who found product to be the highest disclosed dimension. The result of this study is also consistent with findings from other emerging markets which report employee relations to be the most popular dimension, followed by community involvement (Kuasirikun and Sherer, 2004; Abu-Baker and Nasser, 2000; Imam, 2000, and Savage, 1994).

5.2.1.2. Community Involvement Dimension

Community involvement comprises disclosures relating to cash donations and contributions to the needy. Supporting and involving charitable institutions such as schools, non-profit associations and non-governmental organizations include providing scholarship programmes for worthy students. Companies actively sponsor sports events and development; for example by being the main sponsor of national and international sporting events. Companies actively support national pride related charity programmes, sports sponsorships and community projects that are praised by government bodies, the business sector or the involved community itself.

Various community programmes are conducted by PLCs in Malaysia. For the community involvement dimension, charity programmes are the most popular ranging from 29 (14.5 percent) to 56 (28 percent); followed by cash donations varying between 23 (11.0 percent) to 52 (26 percent) of the 200 companies. Government programmes supporting national pride ranged between 14 (7 percent) to 24 (12 percent). Finally, scholarship programmes which prove concern for society ranged between 10 (5 percent) and 29 (14 percent).

The results in Table 5.1 found community involvement to be the second highest dimension disclosed by the Malaysian PLCs. This result is consistent with prior studies by Che Zurina et al. (2003) and William and Pei (1999) who also found community involvement to be the second highest disclosure by PLCs in Malaysia.

5.2.1.3. Product Dimension

There are three main items under the product dimension namely development, quality and safety. Product research and development is the pursuit of higher standards in the quality of products and services, and improvement of various quality and safety aspects in products and services as well.

Most companies reported product development (ranging of 24 (12 percent) to 54 (27 percent). Product development includes development information related to a company's products, the amount and percentage figures of research and development expenditure as well as its benefits, and information on any product improvement research projects set up by the company. Percentages of disclosed product quality ranged from 16 (8 percent) to 51 (25.5 percent). The category of quality involves information on the quality of a company's product as reflected by the certification, prizes or awards received (for example, ISO 9000 and Super Brand). Lastly, disclosure of product safety ranged between 3 (1.5 percent) to 5.5 percent of the sample. Product dimension is found to be the third highest CSR disclosure by PLCs in Malaysia; consistent with the prior study by William and Pei (1999) that revealed product dimension to be the third highest dimension disclosed after employee relations and community involvement.

5.2.1.4. Environment Dimension

This section explores nature and environment related activities disclosed in companies' annual reports. Environmental disclosures relating to pollution control include recognition of eco-friendly activities such as waste management practices, air and water pollution control and zero burning practices. Companies should support conservation and protection by actively promoting environmental awareness. For instance,

plantation companies that utilize palm oil mill effluent and empty fruit bunches to produce compost, as well as employing fibres and fruit shells as fuel to run the palm oil mills without the use of outside supplied electricity. More important than just the effect of companies' activities on the environment, is the continued effort to enlighten younger generations of the importance concerning environmental protection. In appreciation of environmental concerns, companies disclose their environmental awards and certification of ISO 14001 As proof that can be appreciated by other parties.

Various types of environment dimensions are disclosed by companies. Pollution control is most popularly reported in companies' annual reports, ranging between 7 (3.5 percent) to 27 (15 percent) of the 200 companies. Pollution control in the conduct of business operation is as follows; research and development expenditure for pollution abatement; statements indicating company operations are non-polluting or are in compliance with pollution laws and regulations; and statements indicating pollution from operation has been or will be reduced. Conservation of natural resources such as using recycled materials are second highest with the average percentage from the sample ranging between 6 (3 percent) to 18 (9 percent). Finally, the percentage of environment damage repairs or prevention which result in the processing of natural resources ranged between 6 (3 percent) to 21 (10.5 percent).

The study found the environment dimension to be at the lowest level of disclosure by the Malaysian PLCs over the seven year period. This result is consistent with the majority of previous studies (Haniffa and Cook, 2005; Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Williams and Pei, 1999; and Kin, 1990). The awareness level of PLCs in Malaysia toward environmental issues was revealed to still be at a low.

Recently the pressure from some activists and environmental NGOs' towards PLCs in Malaysia has resulted in companies to conduct more socially responsible practices. Hence, annual reports can be utilised to promote a company's involvement in CSR practices (Nik Ahmad et al., 2003). There are some efforts to pursue companies to be concerned and involved in CSR practices, especially in the environment dimension. Besides the ISO 14001[25] certificate, the Malaysian Environmental and Social Reporting Awards (MESRA) was launched in July 2002. The main aim of the award scheme is to appreciate the voluntary disclosure of environmental practices among the Malaysian PLCs. MESRA was released by the Malaysian Environment Department. The association of Chartered Certified Accountants (ACCA) in cooperation with the Department of Environment have also launched environmental reporting guidelines for companies. Through this activity, the government expects that the Malaysian PLCs will take on environmental reporting more actively (Thompson and Zakaria, 2004).

5.2.1.5. Descriptive Statistics of CSRD

This section presents the descriptive statistics employing mean values of each CSRD dimension. The mean value is the most commonly used measure central tendency. Results for mean values of each CSRD dimension are presented in Table 5.2. Findings reveal that employee relations are the highest disclosed dimension with a mean value of 0.70, median value of 0.67 and standard deviation of 0.43. This indicates that PLCs in Malaysia are more concerned with human resources as compared to other dimensions.

[25] ISO 14001 is the specification that is acknowledged by the international association for the system of environmental regulation. Promoting the special condition connected with the environment policy, to determine the aspect of the environment that must be protected and maintained and the impact of the product/the activity/the service towards the environment (Che Zuriana et al., 2003).

Table 5.2
Descriptive Statistics for CSRD and Dimensions of CSRD

Items	Employee	Community Involvement	Product	Environment	Overall
Mean	0.7034	0.3288	0.2448	0.1894	1.4663
SD of Mean	0.0154	0.0226	0.0186	0.0202	0.0586
Median	0.6667	0.0000	0.0000	0.0000	0.8300
SD of Median	0.4352	0.6391	0.5266	0.5715	1.6564
Variance	0.1894	0.4084	0.2773	0.3266	2.7438
Minimum	0.1667	0.0000	0.0000	0.0000	0.1667
Maximum	2.6667	7.6667	2.8333	4.0000	11.5800

There is an increasing number of companies which disclose employee relations information in their annual reports. This result supports prior studies, which found that the highest category of CSRD in the Malaysian PLCs is employee relations (Haniffa and Cooke, 2005; Thompson and Zakaria, 2004; Nik Akhmad and Abdul Rahim, 2003; Williams and Pei, 1999).

This is in contrast with the environment dimension, which is the least disclosed. It is reported as having a mean and median of 0.19 times and 0.00 times respectively. This indicates that the number of companies disclosing their environmental dimension is limited. The companies only disclose common statements relating to environmental information to the public, or only information in qualitative conditions. These findings confirm prior studies by Sumiani et al. (2007) and Nik Ahmad and Sulaiman (2004) who found that the content of environmental disclosure in the Malaysian PLCs is at a general and qualitative statement level.

5.2.2. CSRD Analysis based on Industrial Sector.

This section presents the results of CSRD analysis for PLCs in Malaysia based on industrial sectors. The first section presents content analysis of CSRD, followed by reporting of descriptive CSRD statistics.

5.2.2.1. Content Analysis of CSRD based on Industrial Sectors

This section presents the content analysis of 32 companies[26] which consistently disclosed their CSR activities based on industrial sector. These companies provide CSR practices as its own sub-heading in their annual reports. Table 5.3 shows the content analysis of the number of sentences and pages consistently disclosed of CSR activities in the annual reports of 32 Malaysian companies during period of 1999 to 2005. The results indicate that the average or mean value of the number of sentences and pages revealed plantation (PL) to be the highest disclosed industry, followed by trading and services (TS), industrial product (IP), finance (F), consumer product (CP), construction (CN) and property (PR), respectively.

The highest disclosed CSR activities is Industrial Product (IP) represented by Shell Refining (Malaysia) Berhad, which disclosed more intensively and consistently during the period of analysis in this study, followed by Lingui Development Berhad and TSH Resources Berhad. This was proved by Shell that wins the Best Environmental Reporting in an Annual Report. In Plantation (PL) industry, there are five companies that have the highest disclosure of their CSR activities in annual reports, namely, Golden Hope Plantation Berhad, Highland and Lowland Berhad, and United Plantations Berhad, IOI Corporation Berhad, and KULIM (Malaysia) Berhad. In

[26] See Appendix B.

Table 5.3
Content Analysis of CSRD based on Industry Categorisation

No	Industry	No	1999		2000		2001		2002		2003		2004		2005	
		Co	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1	Consumer Product	6	12.67	1.29	22.67	2.21	30.83	2.92	47.50	4.75	61.00	4.71	77.40	5.10	85.00	7.34
2	Finance	4	24.25	2.31	65.00	5.19	49.75	4.63	67.25	5.63	49.00	3.50	94.50	8.38	81.75	8.38
3	Trading & Service	7	38.14	4.00	49.86	4.71	71.86	6.29	67.29	6.00	79.86	5.57	123.14	9.64	94.57	8.71
4	Industrial Product	3	29	2.67	68	4.5	43	3.33	86.33	6.83	85.67	6.17	91.67	7.33	98.33	8.5
5	Plantation	5	30.4	3.25	60.4	6	58.2	5.6	99.8	8.4	103.2	8.3	104.4	8.7	109.2	9.3
6	Property	3	11.67	0.83	12.33	0.92	13.67	1.08	50.67	2.67	64.00	3.67	74.67	4.17	70.33	4.67
7	Construction	4	12.25	1.25	17.25	1.81	48.50	4.06	61.50	5.38	65.75	6.63	68.00	7.00	75.00	7.75

Notes: 1= Number of sentences, 2= Number of pages. CP=Consumer Product, F=Finance, TS=Trading and Services, IP=Industrial Product, PL=Plantations, PR=Properties, CN=Construction.

Trading and Service (TS) industry, the highest disclosure of CSR activities, are Telekom Malaysia Berhad, Eon Berhad, Star Publications Berhad, Tenaga Nasional Berhad, KPJ HealthCare Berhad, KFC Holding Berhad, and Dialog Group Berhad. Companies in Finance (F) sector with the highest disclosure are Public Bank Berhad, Malayan Bank Berhad, Cahaya Mata Serawak Berhad and Southern Bank Berhad, respectively.

There are six companies in the consumer product (CP) industry that have the highest report on CSR activities, namely British American Tobacco (Malaysia) Berhad, Nestle (Malaysia) Berhad, UMW Holdings Berhad, F&N Holding Berhad, Proton Berhad and Ajinomoto Berhad. It is noted that British American Tobacco (Malaysia) Berhad and Nestle (Malaysia) Berhad were winner and first runner-up of the Best Social Report Award, and Best Social Reporting in an Annual Report Award for the year 2006. In the construction (CN) industry, four companies were found to be consistent with CSR reporting throughout the period of 1999 to 2005, namely IJM Corporation Berhad, Road Builder (Malaysia) Berhad, Hock Seen Lee Berhad, and Gamuda Berhad. IJM Corporation Berhad is also the second runner-up for Best Social Reporting in an Annual Report for the year 2006. Lastly, in the property (PR) industry, three companies had the highest CSRD in annual reports, namely SP Setia Berhad, SIME UEP Properties Berhad and Paramount Corporation Berhad respectively.

Based on the number of sentences and pages which are measured using longitudinal data analysis, it is found that CSRD has increased significantly in the annual reports of the Malaysian PLCs. This indicates that awareness levels of companies in disclosing CSR activities have increased compared with the early period of this study. In addition, five top companies have disclosed their CSR activities based on the highest number of

sentences which were disclosed during the seven-year analysis; the companies included Golden Hope Plantation Berhad which had a total number of sentences at 1,272, followed by Telekom Malaysia Berhad at 991, IJM Corporation Berhad at 775, British American Tobacco (M) Berhad at 693, and the Shell Refining (M) Corporation Berhad at 678. Several companies have expressed their CSR activities using various media such as stand-alone reporting (for example, see British American Tobacco (M) Berhad, Shell Refining (M) Corporation Berhad and Ajinomoto Berhad) (Amran and Selvaraj, 2008). This media is not used as this study concentrates on companies' annual reports as the main information source of CSR activities (Sumiani et al., 2007; Christopher et al., 1997, and Wiseman, 1982).

5.2.2.2. Descriptive Statistics on Industry Categories

The descriptive statistic results based on the industrial sector are reported in Table 5.4. There are five sectors namely consumer products, finance, trading and services, plantations and construction. These sectors all have a mean value above the overall sample. The four sectors, comprising industrial product, properties, technology and hotel have a mean value less than the overall sample (1.47). Findings indicate that there are five industry groups that have been disclosing CSR activities more frequently than others.

Table 5.4 also shows that the plantation sector to have the highest proportion of companies' CSRD during the year 1999 to 2005 and the property sector with the lowest proportion. All of the industries meet the minimum value of CSRD disclosure scores 0.17; with the plantation industry scoring the highest maximum value CSRD score of 11.58. According to the figures, the numbers of disclosures made by plantation companies increased, leading to more reporting of CSR activities in annual reports.

Table 5.4
Descriptive Statistics for CSRD based on Industry group

Industry groups	Minimum	Maximum	Mean	Variance	Skewness	Kurtosis	N
Consumer Products	0.17	7.17	1.8739	3.6992	1.3171	0.5072	182
Finance	0.17	7.83	1.5462	2.5265	2.1188	4.2436	175
Trading & Services	0.17	9.25	1.5785	2.5462	1.8065	3.7793	294
Industrial Products	0.17	7.75	1.2001	1.5664	2.2810	6.8229	259
Plantation	0.17	11.58	2.0872	6.9794	1.7152	2.2013	133
Properties	0.17	9	0.9605	1.0398	4.3057	9.0521	224
Construction	0.17	7.33	1.8385	3.0631	1.5174	1.9110	77
Technology	0.17	2.5	0.8415	0.4044	1.6223	2.3361	35
Hotel	0.17	0.33	0.2900	0.0052	-1.3266	-0.3259	21
Overall sample	0.17	11.58	1.4662	2.7441	2.2552	5.7329	1400

These findings are in contrast with the earlier study by Andrew et al. (1989), which found that the banking and finance industry to have the highest proportion of CSRD. Skewness is the tendency of deviations from the mean to be larger in one direction than the other. All of the industries have a positive skew, but the property sector is not normally distributed as it has the highest deviation with a skew value of 4.3056. Kurtosis is the measure of peaked or flat relativity of the curve defined by the frequency distribution (Malhotra, 2004). Most of the industries have a positive value of kurtosis indicating that the distribution of the mean value is more peaked rather than a normal distribution. Greene (2008) and Gujarati (2003) suggested that the statistical value for skewness and kurtosis should not be more than the critical value, 3. Findings in Table 5.4 found that there are five industries with a normal distribution of mean values below the critical value, namely consumer products, plantation, contraction, technology, and hotel. Nevertheless, Kline (1998) and Hoyle (1995) recommended that skew and kurtosis values not exceeding 3 and 10 respectively are acceptable in assessing normality. Thus, it may be concluded that all of the mean values for the CSRD scores in all nine industries are normally distributed.

The property industry has an extremely high positive kurtosis value (9.0521) as one of the companies in the industry (Island and Peninsular Berhad) only completely reported its CSR activities for one year, 2002. It is demonstrated that CSRD scores indicate the plantation (PL) industry to have the highest mean (2.0872) and maximum value (11.58) compared to the other industries. This indicates that the plantation industry disclosed more information about their CSR activities during the period of 1999 to 2005. The companies in the plantation sector are likely to be more environmentally friendly as it is an industry trend. The other reason is that plantation companies are heavily monitored by stakeholders, especially NGOs, governmental bodies and overseas customers. However detailed reasons need to be investigated through the companies for future research.

5.3. Hypotheses Testing

These sections present the hypotheses testing results of the relationship between CSRD and CFP as well as IO for PLCs in Malaysia. There are three sections comprising preliminary data analysis, and two sections of hypotheses testing results for overall sample size and according to industrial section.

5.3.1. Preliminary Data Analysis

The raw data is taken from the secondary data sources. Secondary data is generally historical, already gathered, and does not involve access to respondents. According to Zikmund (2003), besides some advantages, the main disadvantage of secondary data is that it is not designed specifically to meet the researcher's need. Hence, the researcher must examine secondary data for accuracy, bias and soundness. Data conversion is a process of changing the original form of the data to a format suitable to achieve the

research objectives. In this section, the basic procedures for data analysis are explained before proceeding with the statistical analysis.

5.3.1.1. Data Cleaning and Screening

This section identified some procedures for data cleaning and screening. The raw data in this study is analyzed using the Statistical and Econometrics Software Package (EViews). Data screening is conducted through the examination of the basic descriptive statistics or frequency distribution of the data, followed by testing for the assumption of regression analysis.

5.3.1.1.1. Descriptive Statistics and Analysis of Variables

This section reports the descriptive statistics of all variables including the mean, median, maximum and minimum value, standard deviation, skewness and kurtosis test. The median is a measure of central tendency and is not sensitive to outlying values, unlike the mean, which can be affected by a few extremely high or low values. Standard deviation is essentially a weighted average of the deviations from expected value.

The results of descriptive statistics are presented in Table 5.5. CFP is measured by ROA, Ri and Tobin's *q* ratio. Table 5.5 shows that ROA is derived by the total net income to total assets. The average or mean value of the companies is 7.08 percent and median of 4.97 percent, with standard deviation of 12.57 percent, respectively. This result indicates that the ability of companies to produce profitability for the fiscal year on average is 7.08 percent. The value of the ROA variable varies between companies, with the largest value (maximum) of 28.52 percent and the smallest value (minimum) of -23.12 percent. Share returns of the companies (Ri) is measured by the share price in

Table 5.5
Descriptive Statistics of Variables

Variable	Mean	Median	Maximum	Minimum	Std Dev	Skewness	Kurtosis
ROA	0.0708	0.0497	2.8020	-2.3119	0.1257	-0.7185	4.6740*
Ri	0.1473	0.1513	2.8518	-2.8020	0.9302	-0.0845	2.9002
Tobin's Q	0.9611	0.74000	13.2200	0.0100	0.9556	-0.3339	5.3110*
PERCIO	53.4574	57.3250	97.7700	1.7100	23.5791	-0.3328	2.0101
CSRD	3.8842	3.0000	16.1700	1.0000	2.5702	1.0786	3.4531*
BETA	1.0600	0.9700	3.1470	0.0020	0.5232	1.0060	4.2098*
LEV	0.3989	0.3628	9.2262	0.0061	0.3671	-0.9192	4.8801*
LSIZE	5.8226	5.7423	7.6808	2.1472	0.6156	0.4390	4.2502*
LSALES	5.7096	5.6355	7.2782	2.2068	0.6287	-0.0520	4.0209*
ATR	0.6075	0.4390	5.2554	0.0014	0.5619	1.9742	10.0492*
EPS	35.4757	24.0000	782.000	0.0500	48.3793	-0.9125	4.6778*

Note: *the kurtosis values exceeded the critical value recommended by Hair et al. (2006)

the current year minus the share price in the previous year and is divided by the share price in the previous year. The mean, median and standard deviation value of share returns are about 14.73 percent, 15.13 percent and 93.02 percent respectively. These results reveal that the average of share returns during the period of study is about 14.73 percent and with variance of shares returns among companies about 93.02 percent. These results indicate that, on average, investors have good profits through placing their money in any companies' shares.

Tobin's *q* ratio is measured by the market value of a company divided by the replacement cost of its assets (Lindenberg and Ross, 1981). An equilibrium condition, value of Tobin's *q* ratio is around 1. If Tobin's *q* ratio is greater than 1 the investors have a high incentive to invest and vice versa (Kim, Henderson, and Garrison, 1993). The descriptive statistics of Tobin's *q ratio* has a mean value of 0.96 with a standard deviation of 0.95. The market value of companies, around 1.0, indicates that on average the companies only have 0.96 ability to replace its assets cost. This result reveals that the companies' market value is below 1.0, meaning that the replacement cost of the companies' assets is larger than the value of its shares. This result indicates that the companies' share price is undervalued.

Institutional ownership (IO) is represented by the percentage of shares held by the institutional investors (PERCIO) variable. It is hypothesized that the higher the proportion of institutional investors, the greater will be the monitoring role of the company. The mean value of companies of about 53.4574 indicates that on average, 53.46 percent of companies' shares are held by institutional investors. Standard deviation as a measure spread of the mean distribution of the PERCIO variable is about

23.58 percent, and with the higher and the lower percentages of the shares owned by institutional investors are 97.77 percent and 1.71 percent, respectively.

In this study, content analysis of the published annual reports is used to measure the CSRD variables. From the descriptive statistics results, it is discovered that on average, CSRD of the companies in the sample has a mean value of 3.88 and with a standard deviation of 2.57. This result indicates that the CSRD variable has an average score index of 3.88, and a maximum value of 16.17 and a minimum value of 1.00. BETA variable is utilized to measure the systematic risk of a security. The market risk is equal to 1.0. A beta of larger than 1.0 indicates that the investment is greater risk than the market and lowers than 1.0 is less risky than the market. The average value of the companies' BETA in this study is 1.06 with a standard deviation of 0.52. This result indicates that the systematic risk of the companies is above market risk. For example, the market returns increase or decrease by ten percent, and as expected on average, the companies' shares returns will increase or decrease by 10.60 percent. The difference in share returns of companies is high, with a maximum value of 3.15 and minimum value of 0.002.

Financial leverage (LEV) is measured as the ratio of total liability to the total assets. Of course among the liabilities it is better for each company to have a higher percentage of long-term debt than short-term obligations because the long-term liabilities indicate that the risk of financial distress is low. Based on the data above, the companies have a mean and median of financial leverage of 0.40 and 0.36. These results show that the companies design their total debts to total assets ratio at 39.89 percent. It can be interpreted as each RM0.40 of debt is assured by RM1.00 of total assets.

LSIZE represents the logarithm of the market value of equity. It is derived from the number of outstanding shares multiplied by the market price of the shares. Size is an important control variable, since larger companies seem to adopt more intensive CSR principles (Elsayed and Paton, 2005; Wagner, 2005; Cox et al., 2004; Salama, 2004). LSIZE is expected to be a positive influence on the CFP and share holding by the institutional investors. The mean and median value of the LSIZE is 5.822 and 5.743 with a standard deviation of 0.6556. These results indicate that the companies' size of PLCs in Malaysia averages RM5.822 million. The minimum and maximum size of companies ranges between RM2.147 million and RM7.681million. LSALES as a control variable is also important as an indicator of companies' growth, measured by the natural logarithm of total sales. Mean and median values of companies' sales are 5.710 and 5.636, with a standard deviation of 0.6287. This indicates that company sales on average are RM5.710 million.

Asset turnover ratio (ATR) has been suggested by Russo and Fouts (1997) and Wagner (2005) to control for differences in capital intensity and can be used as a benchmark of assets utilization. The low ATR indicates inefficient utilization of company assets. ATR measures the turnover for all of the companies' assets. The mean and median values of ATR are 0.6075 and 0.4390, with a standard deviation of 0.5619. This result indicates that for each RM1.00 of total assets invested it only produces RM0.61 of total sales. This result reveals that the utilization levels of company assets for PLCs in Malaysia is inefficient, which may possibly be caused by idle capacity. Lastly, EPS is earnings per share of companies. EPS as a control variable is expected to have positive association on CFP and shareholding by institutional investors. The mean and median values of EPS variable are 35.4757 and 24.0000 with a standard deviation of 48.3793. Thus, companies that are listed on the Bursa Malaysia have average net earnings of

RM35.48 and with minimum and maximum earnings ranging between RM0.05 and RM785.00.

5.3.1.1.2. Test for Normality

The normality distribution of data is a requirement and the most fundamental assumption in using parametric tests in data analysis (Hair, Black, Babin, Anderson, and Tatham, 2006). A serious violation in the normality assumption would cause all statistical tests using the F and t statistics to be invalid (Hair et al., 2006). The financial data is relatively more symmetrically distributed and also more widely dispersed than other variables that might be observed (Greene, 2008).

This study utilized two procedures for normality distributed tests, namely, skewness and kurtosis values. These values identify whether the data is normally distributed. Skewness is a measure of the asymmetry of a distribution. The normal distribution is symmetric, and has a skewness value of zero. A distribution with a significant positive skewness has a long right tail. A distribution with a significant negative skewness has a long left tail. Whereas, Kurtosis is measures the peakedness or flatness of the distribution series. For a normal distribution, the value of the kurtosis statistic is zero (Gujarati, 2003). The positive values of statistics kurtosis indicate that the observations are more clustered and have longer tails than those in the normal distribution and the negative values of kurtosis indicates that the observations are less clustered and have shorter tails. Greene (2008) and Gujarati (2003) recommended that the statistical value (z) for skewness and kurtosis should not exceed a critical value.

Table 5.5 shows the results of normality testing based on skewness and kurtosis values for all variables. A thorough inspection of these values reveals that only two values of

kurtosis, namely, Ri, and PERCIO variables are below the critical value (3) suggested by Greene (2008) and Gujarati (2003). However, Kline (1998) and Hoyle (1995) suggested that skewness and kurtosis values not exceeding 3 and 10 respectively are acceptable in assessing normality. Hence, it is concluded that the overall results of normality tests revealed that there is no serious violation of normality assumption and the distribution of the data was assumed to be reasonably normally distributed.

5.3.1.1.3. Test for Multicollinearity

The test for multicollinearity is conducted using Pearson's correlation, Condition Index (CI) and Variance Inflation Factor (VIF). Results of the multicollinearity test are presented in Table 5.6 and Table 5.7. Findings of multicollinearity test in Table 5.6 show that BETA, LEV, LSIZE, ATR and EPS are correlated with ROA, which represents CFP. All of these variables are significant in explaining their relationship with CFP. When R*i* is used as a measure of CFP, there are eight variables, namely, PERCIO, CSRD, BETA, LEV, LSIZE, LSALES, ATR and EPS, that are correlated with CFP. There are two variables namely BETA and LEV, which are negative and significantly correlated to CFP. These results indicate that the systematic risks and debt ratio of companies have a negative impact on CFP. Whereas, when Tobin's *q* is used to represent CFP, there are six variables, namely, CSRD, BETA, LEV, LSIZE, ATR and EPS correlated to CFP.

It is interesting for BETA and LEV as the measures of the systematic risks and debt ratio consistently show a negative correlation with CFP. CSRD as the main variable is also positive and significantly correlated with the number and percentage of shares owned by the institutional investors. These results support the previous studies by Graves and Waddock (1994), McGuire et al. (1988), and Waddock and Graves (1997),

Table 5.6
Pearson's Correlations Matrix of Variables

Variable	ROA	Ri	Q	PERCIO	CSRD	BETA	LEV	LSIZE	LSALES	ATR	EPS
ROA	1.000										
Ri	0.300**	1.000									
Tobin's Q	0.532**	0.431**	1.000								
PERCIO	0.011	0.192**	-0.047	1.000							
CSRD	0.062	0.252**	0.073*	0.060*	1.000						
BETA	-0.153**	-0.259**	-0.136**	-0.036	-0.031	1.000					
LEV	-0.239**	-0.107**	-0.163**	-0.044	0.174**	0.222**	1.000				
LSIZE	0.064*	0.463**	0.341**	0.156**	0.372**	-0.054*	0.158**	1.000			
LSALES	-0.054	0.254**	0.002	0.108**	0.407**	0.000	0.404**	0.647**	1.0000		
ATR	0.353**	0.159**	0.341**	-0.056*	0.112**	-0.110**	0.093**	-0.008	0.516**	1.000	
EPS	0.505**	0.492**	0.225**	-0.148**	0.192**	-0.212**	-0.007	0.286**	0.246**	0.174**	1.000

*Notes: **Correlation is significant at the 0.01 level (2-tailed),*
** Correlation is significant at the 0.05 level (2-tailed).*

which found a significant positive correlation between CSR and CFP as well as IO. As such, these findings provide evidence that all of the variables examined are important to explain CFP.

There is a significant positive correlation between CSRD with both CFP and IO. It was also found that there is a significant positive correlation between CSRD and the three alternative financial performance measurements (ROA, Ri and Tobin's *q*) as well as IO. These results indicate that the higher the level of a company's CSRD, the higher will be their concurrent and subsequent financial performance and percentage of shareholding by the institutional investors.

The bivariate correlation matrix of the variables in this study reveals that all of the variables have low correlation coefficients with each other, meaning that none of the variables show serious multicolleanirety. Judge, Smith, Carter, Lutkepohl, and Lee (1982:620) recommended that correlation coefficients are only indicative of serious collinearity if their coefficients of correlation exceed 0.80. As a further test for multicollinearity, the Condition Index (CI) and Variance Inflation Factor (VIF) are calculated.

Gujarati (2003: 361-362) specifies, as a general rule, that a CI which is more than 30 indicates a severe multicollinearity problem. Table 5.7 shows that the values of CI for all regressions are reasonably within the suggested value, indicating that the five regression models have no multicollinearity problem. However, as multicollenearity can exist between more than two independent variables at the same time, as an additional test, VIF are calculated for all regression models to ascertain the magnitude of the hidden collinearity. Gujarati (2003) suggests that variables with high collinearity

Table 5.7
Condition Index (CI) and Variance Inflation Factor (VIF)

Variable	Model 1: Equation (4.1)		Model 2: Equation (4.2)		Model 3: Equation (4.3)		Model 4: Equation (4.4)		Model 5: Equation (4.5)	
	CI	VIF	CI	VIF	CI	VIF	CI	VIF	CI	VIF
CSRD	1.99	1.16			1.98	1.17			2.10	1.17
MPLD			2.11	1.11			2.12	1.12		
COMD			2.44	1.46			2.20	1.46		
PROD			2.57	1.34			2.46	1.34		
ENVD			3.12	1.25			3.04	1.25		
BETA	2.31	1.08	3.31	1.09	2.10	1.08	3.26	1.09	2.44	1.13
LEV	2.85	1.17	3.68	1.18	2.75	1.22	333	1.22	3.00	1.08
LSIZE	3.62	2.09	4.46	2.10	2.97	1.22	3.71	2.10	3.35	1.18
LSALES	4.58	2.22	5.14	2.23	3.68	2.23	4.56	2.24	3.83	2.14
ATR	4.86	1.18	5.40	1.19	4.69	1.22	5.22	1.23	4.88	2.24
EPS	7.61	1.12	9.09	1.12	4.94	1.19	5.50	1.20	5.17	1.18
ROA					7.70	1.20	9.17	1.20		
PERCIO									8.21	1.12

are those with a VIF exceeding 10. The values for VIF for all regression models as reflected in Table 5.7 show that all these values are reasonably lower than 10. The highest value was 2.24, which is well within the acceptable range (Neter, Wasserman and Kutner, 1985). Therefore, we can conclude that multicollinearity does not appear to be a major issue in this investigation.

5.3.1.1.4. Test for Heteroscidasticity

In the ordinary regression model there is one of the classical assumptions, the error variance is constant across samples. When this condition prevails, the disturbance is said to be heteroscedastic. Heteroscedasticity arises in numerous applications, in both cross-section and time series data. Heteroscedasticity tests are conducted using the White's General test. If the result of the F-statistic does not reject the null hypothesis it means that the homoscedasticity assumption prevails.

Table 5.8 reports the results of White's General test. The findings established that variance is not constant over time. These results indicate that even though the least squares estimators of the regression coefficients are unbiased and consistent they are

Table 5.8
White's General Test Results

Model	F-statistic	Chi-square (Obs*R^2)	Probability	Do not reject / reject Ho
Model 1	37.0180	374.8900	0.0000	Reject
Model 2	26.4417	381.5843	0.0000	Reject
Model 3	5.4569	82.8819	0.0000	Reject
Model 4	3.9716	83.3011	0.0000	Reject
Model 5	32.4874	376.1023	0.0000	Reject

not the best linear unbiased estimators (BLUE) or asymptotically efficient (Greene, 2008; Gujarati, 2003). As the consequences are that the standard errors of coefficients parameter are not appropriate and any conclusions obtained from those are possibly deceptive. Hence, "*White's Heteroscedasticity Correction*" in the Statistical and Econometrics Software Package (EViews) is utilized to solve the problem of heteroscidasticity in all five of the regression models in this study.

5.3.1.2. The Sensitivity Analysis and Robustness Check

Testing for the sensitivity analysis and robustness check are done for tested and control variables. This is the validity test to confirm that findings on the determinants of CFP are not influenced by other factors. This test is robust to certain misspecifications of the model, such as the failure to incorporate latent heterogeneity in the mean of variables (Greene, 2008). The sensitivity analysis is divided into two fractions, namely, sensitivity analysis for tested variables and sensitivity analysis for controlled variables.

5.3.1.2.1. Sensitivity Analysis on Tested Variables.

Table 5.9 reports the regression output of the test variables. These regressions consist of the CSRD and PERCIO variables using Generalized Least Squares (GLS) with FEM. The findings for both CSRD and PERCIO test variables are significant for all models. The coefficients of variables show mixed results for Model 2 indicating that

Table 5.9
Sensitivity Analysis on Tested Variables

Variables	Model 1: ROA	Model 2: R*i*	Model 3: Tobin's *q*
CSRD	0.0003***	0.0044***	0.0033***
	(1.08E-05)	(0.0008)	(6.39E-05)
PERCIO	1.41E-05***	-0.0008***	0.0013***
	(1.94E-06)	(0.0002)	(6.05E-05)
R^2	0.8039	0.9338	0.9633
Adjusted R^2	0.7703	0.9225	0.9570
F-statistic	24.0100***	82.7059***	153.7220***
DW-statistic	1.7402	1.5955	1.7454

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(iv) Number of observations is 1380.

there are other factors influencing the tested variables. CSRD and PERCIO variables are positive and significantly influenced by CFP for Models 1 and 3. It can be concluded that both CSRD and PERCIO variables can explain CFP.

The adjusted R^2, measures that the goodness of fit for the three models are very good. These results indicate that the proportion of variation in CFP as dependent variables, represented by three alternative variables (ROA, Ri, and Tobin's *q*), are explained by the two independent variables with ranging values of 77.03, 92.25 and 92.03, respectively. Positive first order serial correlation is absent in all three models as the Durbin Watson computed value *d* lies in the upper values, between 1.653 and 1.693 (Gujarati, 2003). The estimation is set to follow the White's heteroscidasticity correction for consistent estimator.

5.3.1.2.2. Sensitivity Analysis on the Controlled Variables.

This section presents the result of sensitivity analysis of controlled variables. A similar procedure is done on control variables. The results are shown in Table 5.10. In this

Table 5.10
Sensitivity Analysis on Controlled Variables

Variables	Model 1: ROA	Model 2: Ri	Model 3: Tobin's *q*
BETA	0.0374***	0.0677***	0.0437***
	(0.0105)	(0.0012)	(0.0010)
LEV	-0.5279***	0.0977***	0.1779***
	(0.1100)	(0.0059)	(0.0006)
LSIZE	0.0499***	8.90E-07***	1.06E-07***
	(0.0067)	(6.23E-09)	(6.44E-10)
LSALES	-0.0993***	-1.76E-07***	-5.84E-08***
	(0.0133)	(5.70E-09)	(4.22E-10)
ATR	0.6124***	0.0832***	0.1833***
	(0.0447)	(0.0021)	(0.0019)
EPS	0.0095***	0.0009***	0.0001***
	(0.0003)	(2.52E-05)	(1.49E-05)
R^2	0.9083	0.9446	0.9712
Adjusted R^2	0.8923	0.9350	0.9662
F-statistic	56.7114***	97.6988***	193.2668***
DW-statistic	1.9771	1.5383	1.7596

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(iv) Number of observations is 1380.

section, overall variables are significant at the 1 percent level and indicate that CSRD and PERCIO variables are positive and significantly influenced by CFP for Models 1 and 3. It can be concluded that both CSRD and PERCIO variables can explain CFP.

The adjusted R^2, measures the goodness of fit for the three models with very good results. These results indicate that the proportion of variation in CFP as dependent variables is represented by three alternative variables (ROA, Ri, and Tobin's *q*) and explained by the two independent variables with ranging values of 77.03, 92.25 and 92.03, respectively. Positive first order serial correlation is absent in all three models, as the Durbin Watson computed value *d* lies within the ranging values between 1.5 and 4 (Gujarati, 2003). The estimation is set to follow the White's Heteroscidasticity Correction for consistent estimator.

All models show mixed results indicating that other factors are influencing the controlled variables. BETA, LSIZE, ATR and EPS are significantly positive for all three models, while LSALES variable is negative and significantly related to CFP for all models. LEV is significant negatively for Model 1 but significant positively for Models 2 and 3. Hence, most of the control variables are consistent determinants that have been incorporated in the models.

The consistent results found that the adjusted R^2, which measures the goodness of fit, varies among models with Models 1, 2 and 3 at 89.23, 93.50 and 96.62 percent, respectively. This shows that at least 89.23 percent variation in the dependent variable is explained by the independent variables, and, thus, overall explanatory variables properly explain the CFP. Positive first order serial correlation is absent in all three models, when the Durbin Watson computed value *d* lies greater than ranging values of 1.613 and 1.735 (Gujarati, 2003). Hence, it is concluded that the overall results of autocorrelation tests revealed that there is no violation of serial correlation assumption. The estimation is set to follow the White's heteroscedasticity correction for consistent estimator as in the prior model.

5.3.1.2.3. Robustness Check

Based on the GLS with FEM output, the regression is re-estimated for robustness check through the Two-Ways Fixed Effects. For this purpose, the dummies for time $D_{2000,}$ $D_{2001,}$ D_{2002}, D_{2003}, D_{2004} and D_{2005} are included in the estimation. According to Gujarati (2003:301-302), to avoid perfect collinearity, the number of time dummy series should be smaller compared to the total time series. The fixed effects model (FEM) includes the dummy variable for the number of times, permitting the value to change through time and every unit of the intercepts. The model that includes the dummy variable for

number of years (i.e., time effect model or two-way) is analyzed. The result of robust check with two ways fixed-effects is presented in Table 5.11 for Model 1 (equation 4.50) and Table 5.12 for Model 2 (equation 4.51).

Table 5.11 shows the results are robust with the two ways fixed-effect model. The rejection of null hypothesis is evident in the *F* test. Adjusted R^2 indicates the CFP is explained well by the independent variables. The Durbin-Watson computed value is lower than the Durbin-Watson *d* statistics, d_L=1.571 and d_U=1.7790 at 1 percent level of significance and ten degrees of freedom. Based on the results of this test only Models 1.1 and 1.2 are absent of positive first order serial correlation. The estimation is set to follow the White's heteroscedasticity correction for consistent estimator as in the previous model. Overall explanatory variables show a significant relationship with CFP, at least at the 1 percent level for all three models. All of the six time dummy variables are significant negatively at the 1 percent level for all three models.

The findings of GLS with two-way fixed effects between CSRD and IO are reported in Table 5.12. The findings of Table 5.12 indicate that robustness with two ways fixed-effect exists. The rejection of the null hypothesis is apparent in the *F* test. R^2 indicated that the IO is strongly explained by the independent variables. There are signs that six year dummy variables are significant positively related to dependent variables at the 1 percent level for all three models.

Except LEV, overall explanatory variables are significantly different from zero, at least at 10 percent levels, for all three models. Adjusted R^2 indicates that the variation of percentage of shareholding by institutional investors is good as explained by explanatory variables. None of the three models have a problem with positive first

Table 5.11
GLS with Two-Ways Fixed Effects of CSR on CFP
(Time Dummy for 2000 – 2005)

Variables	Model 1.1 (ROA): Equation (4.51)	Model 1.2 (R*i*): Equation (4.51)	Model 1.3 (Tobin's *q)*: Equation (4.51)
D_{2000}	-0.0173***	0.0108***	-0.1059***
	(0.0002)	(2.37E-06)	(0.0011)
D_{2001}	-0.0169***	-0.1417***	-0.0886***
	(0.0002)	(2.15E-06)	(0.0011)
D_{2002}	-0.0175***	-0.1630***	-0.0916***
	(0.0002)	(2.24E-06)	(0.0010)
D_{2003}	-0.0175***	-0.3137***	-0.0341***
	(0.0002)	(2.63E-06)	(0.0011)
D_{2004}	-0.0127***	-0.0638***	-0.0680***
	(0.0002)	(2.08E-06)	(0.011)
D_{2005}	-0.0138***	-0.0784***	-0.1124***
	(0.0002)	(2.19E-06)	(0.0012)
CSRD	0.0002***	0.0041***	0.0047***
	(2.43E-05)	(2.94E-07)	(0.0002)
BETA	-0.0040***	0.0327***	0.0210***
	(0.0002)	(2.74E-06)	(0.0010)
LEV	-0.0351***	-0.0138***	0.1750***
	(0.0025)	(2.28E-06)	(0.0012)
LSIZE	1.81E-10***	-2.72E-09***	1..10E-07***
	(2.81E-11)	(5.04E-13)	(7.88E-10)
LSALES	-3.02E-09***	3.75E-09***	-5.54E-08***
	(1.01E-10)	(9.25E-13)	(5.67E-10)
ATR	0.0479***	0.0063***	0.2093***
	(0.0009)	(2.75E-06)	(0.0032)
EPS	0.0007***	0.0003***	0.0001***
	(4.34E-06)	(3.07E-08)	(1.30E-05)
R^2	0.9119	0.7208	0.9612
Adjusted R^2	0.8958	0.6701	0.9542
F-statistic	56.9645***	14.2143***	136.4003***
DW-statistic	1.9890	1.9724	1.6475

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(iv) Number of observations is 1380.

Table 5.12
GLS with Two-Ways Fixed Effects of CSR on IO
(Time Dummy for 2000- 2005)

Variables	Model 2.1 (PERCIO): Equation (4.52)	Model 2.2 (PERCIO): Equation (4.52)	Model 2.3 (PERCIO): Equation (4.52)
D_{2000}	1.4238***	1.5556***	1.4740***
	(0.0557)	(0.0568)	(0.0567)
D_{2001}	1.82E-02***	1.8537***	1.8714***
	(5.40E-02)	(0.0540)	(0.0551)
D_{2002}	1.98E-02***	1.9162***	1.9643***
	(5.18E-02)	(0.0526)	(0.0529)
D_{2003}	1.83E-02***	1.7751***	1.8227***
	(5.42E-02)	(0.0543)	(0.0552)
D_{2004}	0.8414***	0.8474***	0.8623***
	(5.73E-02)	(0.0576)	(0.0590)
D_{2005}	0.6810***	0.7154***	0.7292***
	(0.0607)	(0.0610)	(0.0625)
CSRD	0.0441***	0.0088	0.0361***
	(0.0075)	(0.0091)	(0.0078)
ROA	-0.4928***		
	(0.0906)		
Ri		-0.0013	
		(0.0024)	
Tobin's *q*			3.42E-02***
			(1.13E-02)
BETA	0.2759***	0.2623***	2.58E-01***
	(0.0373)	(0.0398)	(4.09E-02)
LEV	-0.0516***	-0.0412***	-0.0943***
	(0.0067)	(0.0125)	(0.0152)
LSIZE	6.80E-08***	7.61E-08***	6.35E-08***
	(1.48E-08)	(1.54E-08)	(1.55E-08)
LSALES	0.0330	0.0472	0.0633*
	(0.0302)	(0.0304)	(0.0323)
ATR	0.3415***	0.3371***	0.3041***
	(0.0678)	(0.0680)	(0.0669)
EPS	0.0022***	0.0018***	0.0018***
	(0.0006)	(0.0005)	(0.0005)
R^2	0.9541	0.9075	0.9470
Adjusted R^2	0.9457	0.8907	0.9369
F-statistic	1188.16***	586.8114***	1021.23***
DW-statistic	1.5941	1.5996	1.5927

Notes: *(i) Figures in parentheses are standard errors robust to heteroscedasticity,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(iv) Number of observations is 1380.

order serial correlation when the Durbin Watson computed value *d* lies between 1.5 and 4.0 (Gujarati, 2003).

5.3.1.2.4. Hausman Test

The OLS techniques utilised and it assumes constant slope and intercept. This will give rise to a problem if the technique is used to analyse the panel data comprising the time series and intercepts. As can be seen, results of the pooled model using OLS regression[27] are based on the assumption that all companies have the same behaviour with respect to the explanatory variables. Longitudinal data or a combination of cross-sectional and time-series data analysis employing the OLS regression is not a precise technique (Leamer, 1978). Hence, GLS with fixed effects and random effects techniques are more appropriate models because these techniques recoup heterogeneity or individual characteristics of the companies.

There is large number of empirical applications involving one of the following assumptions about the individual effects. According to Johnston and Dinardo (1997), there are two different models to explain the relationship between individual effects and explanatory variables utilizing longitudinal data analysis, comprising the Random Effects Model (REM) and the Fixed Effects Model (FEM). For instance, if individual effect is uncorrelated with explanatory variables the REM is more precise than FEM for longitudinal or panel data analysis. Conversely, if individual effect is correlated with explanatory variables, FEM is a more appropriate model than REM. Hence, the researcher has to decide which of the two models is the most appropriate for the

[27] Summary of pooled OLS estimation results is reported in Appendix C.

estimation process, the longitudinal or panel data analysis. The Hausman test is a useful device for determining the preferred specification of the common effect model (Greene, 2008). The Hausman test is used to decide the most appropriate model to be utilized for the panel data analysis. The underlying idea of the Hausman test is to compare two sets of estimates, one of which is consistent under both the null and the alternative and another which is consistent only under the null hypothesis.

Table 5.13 reports the findings of the Hausman test utilizing Wald Coefficients procedures. The Wald coefficients for all models are greater than the recommended critical Wald value. Thus, the null hypotheses are rejected. These results support the hypothesis that the unobserved individual effect is correlated with the explanatory variables. As summarized, FEM is decisively more precise than the REM[28] for the estimation process of the relationship between CSRD and CFP as well as IO for PLCs in Malaysia.

Table 5.13
Hausman Test using Wald Coefficient

Model	*Chi-square*
Model 1	75.2675
	(0.0000)
Model 2	49.5370
	(0.0000)
Model 3	9.6051
	(0.0000)
Model 4	7.1813
	(0.0000)
Model 5	82.1807
	(0.0000)

Note: The probability p-values are in parentheses.

[28] The Summary results of the estimation process using REM are reported in Appendix D. These results indicate that CSRD as an independent variable and also along with IO variables represented by percentage of shareholding by institutional investors (PERCIO) are not good enough models for the estimating process of CFP. It is also surprising that none of the CSRD and dimensions of CSRD variables have a significant impact on the percentage of shareholding by institutional investors.

5.3.2. Hypotheses Testing Results

This section presents the findings for the estimation process on the relationship between CSRD and CFP as well as IO using GLS with FEM. In the FEM, the intercept in the regression model is allowed to differ between individuals in recognition of the fact that every company, or cross sectional unit may have some specific characteristics of its own. The subscript on the intercept term is included to indicate that the intercept of all the companies in the sample may be different.

This following section reports the results of hypothesis testing using GLS with FEM. This section is focused on the main issue of the thesis, which is to investigate the hypotheses developed in Chapter Three. These hypotheses are restated for ease of reference in the following statements:

Table 5.14
Summary of Hypotheses Statements

Hypothesis	Statement of Hypothesis
H1:	*CSRD is positively related to CFP*
H2:	*The Employee Relations dimension is positively related to CFP*
H3:	*Community Involvement dimension is positively related to CFP*
H4:	*Product dimension is positively related to CFP*
H5:	*Environment dimension is positively related to CFP*
H6:	*CSRD is positively related to IO.*
H7:	*Employee Relations dimension is positively related to IO*
H8:	*Community Involvement dimension is positively related to IO*
H9:	*Product dimension is positively related to IO*
H10:	*Environment dimension is positively related to IO*
H11:	*CSRD and IO are positively related to CFP*

5.3.2.1. CSRD and CFP

This section presents the hypotheses testing on the relationship between CSRD and its dimensions with CFP. Table 5.15 shows the results of hypothesis testing between CSRD and CFP using GLS with FEM for all three models. Generally, the outcomes of

Table 5.15
Hypothesis Testing Result between CSRD and CFP

Variables	CSRD on CFP			Dimension of CSRD on CFP		
	Model 1.1 (ROA): Equation (4.16)	**Model 1.2 (R*i*): Equation (4.16)**	**Model 1.3 (Q): Equation (4.16)**	**Model 2.1 (ROA): Equation (4.17)**	**Model 2.2 (R*i*): Equation (4.17)**	**Model 2.3 (Q): Equation (4.17)**
CSRD	0.0007***	0.0047***	0.0008***			
	(5.88E-05)	(0.0007)	(0.0002)			
MPLD				0.0007***	0.0088***	0.0018***
				(0.0001)	(0.0021)	(0.0004)
COMD				0.0014***	0.0133***	-0.0148***
				(0.0001)	(0.0020)	(0.0004)
PROD				0.0003***	-0.0177***	0.0153***
				(0.0001)	(0.0020)	(0.0004)
ENVD				0.0010***	0.0174***	-0.0134***
				(0.0001)	(0.0016)	(0.0008)
BETA	0.0030***	0.0931***	0.0442***	0.0025***	0.0968***	0.0400***
	(0.0003)	(0.0134)	(0.0010)	(0.0003)	(0.0129)	0.0011
LEV	-0.0563***	0.0895*	0.1813***	-0.0580***	0.0727	0.1883***
	(0.0055)	(0.0515)	(0.0010)	(0.0056)	(0.0467)	(0.0005)
LSIZE	0.0035***	4.17E-08)***	1.01E-07***	0.0033***	4.95E-08***	9.94E-08***
	(0.0003)	(2.05E-09)	(4.62E-10)	(0.0003)	(2.91E-09)	(5.37E-10)
LSALES	-7.81E-09***	-8.66E-09**	-3.64E-02***	-7.18E-09***	-8.61E-09*	-3.85E-02***
	(2.97E-10)	(4.35E-09)	(8.16E-04)	(2.69E-10)	(4.57E-09)	(8.53E-04)
ATR	0.0216***	0.0698***	0.1272***	0.0211***	0.0625***	0.1360***
	(0.0011)	(0.0095)	(0.0036)	(0.0011)	(0.0090)	(0.0035)
EPS	0.0007***	0.0010***	7.94E-05***	0.0007***	0.0007***	9.03E-05***
	(1.92E-05)	(0.0001)	(8.96E-06)	(1.90E-05)	(9.96E-05)	(8.89E-06)
R^2	0.7753	0.9860	0.9507	0.7703	0.9897	0.9553
Adjusted R^2	0.7714	0.9835	0.9421	0.7635	0.9879	0.9473
F-statistic	23.5874***	400.8966***	109.8469***	22.3002***	538.675***	119.7289***
DW-statistic	2.0002	1.6337	1.7498	1.9989	1.6459	1.7607

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(iv) Number of observations is 1380.

the *t* test are significant, at least at 10 percent. The results indicate that CFP is clearly explained by the CSRD and the set of explanatory variables, the overall estimation is good ranging between 77.14 percent and 98.35 percent.

The estimation is set to follow the White Heteroscedasticity correction for consistent estimators. Except for Model 1.2, no autocorrelation exists for Models 1.1 and 1.3 when the Durbin-Watson computed value *d* lies above the upper limit the Durbin-Watson *d* statistics, d_L=1.6030 and d_U=1.7460 at the 1 percent level of significance. The findings of the study report that CSRD is significant and positively related to the CFP in all three models. These results strongly support the first hypothesis that there is a significant positive relationship between CSRD and CFP. Signs or control variables show mixed results. BETA, LSIZE, ATR and EPS are significant positively related to CFP in all three models at the 1 percent significance level, whereas LSALES is significant negatively related to CFP in all three models at the 1 percent level.

In the case of LEV, it is significant and negatively related to CFP in Model 1 and significant and positively related to CFP in Model 2 and Model 3. The results indicate that each company has its own characteristics differing between small and big companies and between companies that have more debt and less debt. Thus, bigger companies are more highly leveraged than small companies and the companies with high leverage assumed more risk than lower leverage companies. Therefore, there are two consequences towards CFP. First, companies with higher leverage indicate a negative signalling of their financial position because these companies have to provide more financial resources to pay the cost of debts and repay their initial debts and the financial condition of the companies is usually more sensitive. Second, higher leverage does have some advantages, as at certain levels, the cost of debt is usually less

expensive than cost of equity and acquiring debts is easier than acquiring more equity. Based on these arguments leverage (LEV) has two possible influences that negatively or positively impact their CFP.

Table 5.15 also reports the results of estimation using attributes of CSRD. Overall variables of CSRD attributes are significantly related to CFP. These results support all of the hypotheses for the CSRD dimension, namely, hypotheses 2, 3, 4 and 5. Three of the CSRD dimensions have mixed findings in all three models. Employee Relations Dimension (MPLD) is significant positively related to CFP in all three models, Community Involvement Dimension (COMD) and Environmental Dimension (ENVD) variables are significant positively related to CFP in Models 2.1 and 2.2, but significant negatively related to CFP in Model 2.3. The Product Dimension (PROD) variable, showed contrary results being significant positively related to CFP at the 1 percent level in Models 2.1 and 2.3, while being significant negatively related to CFP at the 1 percent level in Model 2.2.

There is no existence of first-order serial correlation in Model 2.1, whereas both Models 2.1 and 2.3 provide inconclusive evidence regarding the presence or absence of positive first-order serial correlation as the Durbin-Watson computed value *d* lies between the lower and the upper limit of the Durbin-Watson *d* statistics, d_L=1.5710 and d_U=1.7790 at the 1 percent level of significance. The adjusted R^2 in the three models are 0.7635, 0.9879, and 0.9473, respectively. This means that at least 76.35 percent of variability of CFP is explained by CSRD and other explanatory variables.

5.3.2. 2. CSRD and IO

This section presents the hypotheses testing results of the relationship between CSRD and IO. The five hypotheses statements are tested, namely: CSRD is positively related to IO; Employee relations dimension (MPLD) is positively related to IO; Community involvement dimension (COMD) is positively related to IO; Product dimension is positively related to IO; and Environment dimension is positively related to IO.

Table 5.16 shows the results of hypotheses testing using GLS with FEM for all three Models. Overall, the outcomes of *t* test are significant at the 1 percent level. The F test is statistically significant at $p< 0.01$. Thus, it reveals a strong association between IO represented by the percentage of shares owned by institutional investors (PERCIO) as the dependent variable and CSRD together with a set of controlled variables as the independent variables. Adjusted R^2 indicates the percentage of variation in dependent variable explained by the variation in the independent variables. Its values reveal that the percentage of shares owned by institutional investors is clearly explained by the CSRD and set of controlled variables, comprising 0.9779 (Model 3.1), 0.9801 (Model 3.2), and 0.9795 (Model 3.3), respectively. It means at least 97.70 percent of variation of IO is explained by CSRD and the set of control variables.

Table 5.16 also reports that the estimation of the relationship between CSRD and IO in Model 3.1, Model 3.2, and Model 3.3 are set to follow the White Heteroscedasticity consistent estimator. There is inconclusive evidence regarding the presence or absence of positive first-order serial correlation for all three models as the Durbin-Watson computed value *d* is between the lower and the upper limit of the Durbin-Watson *d* statistics, $d_{L=}$ 1.5920 and d_U=1.7570 at the 1 percent level of significance.

Table 5.16
Hypotheses Testing Results of CSRD on IO

Variable	CSRD on IO			Dimension of CSRD on IO		
	Model 3.1: Equation (4.18)	**Model 3.2: Equation (4.18)**	**Model 3.3: Equation (4.18)**	**Model 4.1: Equation (4.19)**	**Model 4.2: Equation (4.19)**	**Model 4.3: Equation (4.19)**
CSRD	0.0365***	0.0352***	0.0316***			
	(0.0049)	(0.0041)	(4.17E-03)			
MPLD				0.1762***	0.1655***	0.1651***
				(0.0077)	(0.0073)	(0.0073)
COMD				-0.1379***	-0.1330***	-0.1331***
				(0.0141)	(0.0134)	(0.0134)
PROD				0.1005***	0.1062***	0.1066***
				(0.0107)	(0.0096)	(0.0096)
ENVD				-0.1169***	-0.1054***	-0.1043***
				(0.0166)	(0.0159)	(0.0159)
ROA	-0.2349***			-0.2778***		
	(0.0573)			(0.0615)		
Ri		3.40E-05***			3.04E-05***	
		(2.26E-06)			(3.40E-06)	
Tobin's Q			0.0136***			-0.0113**
			(0.0048)			(0.0056)
BETA	-0.5953***	-0.5502***	0.5619***	-0.4982***	-0.4919***	-0.4920***
	(0.0198)	(0.0161)	(0.0167)	(0.0222)	(0.0214)	(0.0213)
LEV	-0.1555***	-0.0677***	0.0610***	-0.1520***	-0.0530***	-0.0348***
	(0.0212)	(0.0081)	(0.0136)	(0.0244)	(0.0096)	(0.0121)
LSIZE	0.1587***	5.15E-08***	5.63E-08***	0.0768***	9.29E-02***	1.03E-01***
	(0.0137)	(1.24E-08)	(1.28E-08)	(0.0150)	(1.44E-02)	(1.61E-02)
LSALES	1.16E-02	1.73E-02	1.39E-02	1.15E-07***	1.23E-07***	1.21E-07***
	(1.49E-02)	(1.38E-02)	(1.43E-02)	(2.20E-08)	(2.30E-08)	(2.29E-08)
ATR	0.4262***	0.4377***	0.4276***	0.3014***	0.3012***	0.3042***
	(0.0411)	(0.0382)	(0.0379)	(0.0489)	(0.0497)	(0.0496)
EPS	0.0028***	2.51E-03***	2.47E-03***	0.0028***	0.0021***	0.0021***
	(0.0004)	(1.65E-04)	(1.92E-04)	(0.0004)	(0.0003)	(0.0003)
R^2	0.9797	0.9816	0.9811	0.9802	0.9808	0.9808
Adjusted R^2	0.9779	0.9801	0.9795	0.9784	0.9791	0.9792
F-statistic	544.2355***	670.9132***	631.2023***	560.5891***	598.0883***	602.3101***
DW-statistic	1.5951	1.5982	1.5990	1.6108	1.6047	1.6054

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p <0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observations is 1380.

The findings of the study prove that the entire coefficients for CSRD and the control variables fit with the theory. The CSRD variable is significant positively related to IO in all three models. This indicates that institutional investors are concerned with companies' involvement in CSRD. For example, if the CSRD score index of a company improves by 1 percent, institutional investors will possibly add to share ownership ranging from 0.03 to 0.04 percent.

Furthermore, for the three controlled variables, namely, LSIZE, ATR and EPS, they are significant positively related to IO in all three models. This indicates that institutional investors have a positive response towards the rising companies' size, the speeding companies' assets turnover, and the growing companies' earnings. For instance, when there is an increase of 1 percent in the companies' size, it may increase shares owned by institutional investors from 0.00 to 0.16 percent, increasing 1 percent of the assets turnover of companies may increase shares owned by institutional investors between 0.43 to 0.44 percent, and growing 1 percent of earnings per shares paid by companies may add to shares owned by institutional investors between of 0.00 to 0.003 percent.

Two control variables, namely, BETA and LEV are significant negatively related to IO. These results confirm that institutional investors also follow risk-aversion behaviour. In consequence, institutional investors tend to avoid placing their money in companies that have high BETA as the measure of systematic risk of companies' shares in the market. Neither do they invest in highly leveraged companies. For example, if the company's BETA increases 1 percent, institutional investors will possibly divest their share ownership by 0.55 to 0.66 percent. Moreover, if company's leverage increases 1 percent, institutional investors may reduce their share ownership ranging between 0.06 to 0.16 percent.

This result supports hypothesis 6 that CSRD is significant positively related to IO in all three models. These results support the previous empirical studies by Mahoney and Roberts (2007), Cox et al. (2004), Johnson and Greening (1999) and Graves and Waddock (1994) who found that there is a positive relationship between CSR and IO.

As can be seen the relationship between the dimensions of CSRD and IO are reflected in Table 5.16. Considering the goodness of fit the coefficient of adjusted R^2 for the three models is 0.9784, 9791 and 9892 respectively. This means that at least 97.84 percent of variability of regressor variables is explained by explanatory variables. Nevertheless, the problem of inconclusive evidence regarding the presence or absence of positive first-order serial correlation still continues to persist in all three models, when the Durbin-Watson computed value *d* lies between the lower limit and upper limit of the Durbin-Watson *d* statistics, $d_{L=}$ 1.5610 and d_U=1.7910, at the 1 percent level of significance.

Results of the relationship between the dimensions of CSRD and IO reveals that the overall four dimensions of CSRD are significantly related to IO. Two dimensions of CSRD, namely, MPLD and PROD are significant positively related to IO at the 1 percent level in all three models, whereas, two dimensions of CSRD, namely, COMD and ENVD are significant negatively related to IO in all three models. Lastly, the overall controlled variables are significant at the 1 percent level in all three models. These findings reveal that only two variables, namely, MPLD and PROD that support hypothesis 7 and 9. These results are consistent with the latest study by Cox et al. (2004), which reveal that employee relations is significant positively related to IO and Mahoney and Roberts (2007) found that there is significant positive relationship between product dimension and IO.

5.3.2.3. CSRD, IO and CFP

This section presents the hypothesis testing results of the relationship between CSRD and IO on CFP. The hypothesis statement in this section, namely, CSRD and IO is positively related to CFP. Table 5.17 shows hypothesis testing results using GLS with FEM for Model 5.1, Model 5.2 and Model 5.3. Overall, the variables are significantly related to CFP in all three models. Both CSRD and PERCIO variables are able to explain CFP. Except LEV and LSALES, all of the controlled variables are significantly related to CFP.

Overall the outcomes of *t* tests are significant at the 1 percent level. The correlation analysis using Adjusted R^2, describes the proportion of the variation in CFP as the dependent variable explained by the CSRD and PERCIO along with other explanatory variables in which the overall estimation is good ranging between 0.7718 and 0.9865. This means that at least 77.18 percent of variation in IO is explained by CSRD and PERCIO as well as the set of control variables. The *F* test rejects the null hypothesis, meaning the variation in the independent variable represented by CFP can be explained by CRSD and PERCIO as well as the set of control variables. The estimation is set to follow the White Heteroscedasticity consistent estimator as in the previous model and there is no evidence of autocorrelation in the three models.

The above findings prove that a relationship exists between both CSRD and IO on CFP by using the GLS with FEM. It can be concluded that this result supports hypothesis 11 in that CSRD and PERCIO variables are significant positively related to CFP. These results prove the statement that the more socially responsible the company and the higher the percentage of shareholding by the institutional investors the more CFP will be enhanced.

Table 5.17
Hypothesis testing results of CSRD and IO on CFP

Variables	Model 5.1 (ROA): Equation (4.20)	Model 5.2 (R*i*): Equation (4.20)	Model 5.3 (Q): Equation (4.20)
CSRD	0.0007***	0.0042***	8.50E-05***
	(6.34E-05)	(0.0002)	(3.54E-05)
PERCIO	0.0003***	0.0007***	2.15E-05***
	(2.26E-05)	(7.94E-05)	(2.76E-06)
BETA	0.0023***	0.0480***	0.0103***
	(0.0003)	(0.0010)	(0.0002)
LEV	-0.0541***	0.1784***	1.0995***
	(0.0055)	(0.0007)	(0.0002)
LSIZE	3.64E-03***	1.06E-07***	0.2803***
	(2.92E-04)	(5.52E-10)	(0.0004)
LSALES	-8.53E-09***	-5.90E-08***	-0.2114***
	(3.17E-10)	(3.67E-10)	(0.0011)
ATR	0.0235***	0.1785***	0.4692***
	(0.0011)	(0.0016)	(0.0032)
EPS	0.0007***	0.0001***	7.28E-05***
	(2.02E-05)	(1.47E-05)	(3.61E-06)
R^2	0.8060	0.9736	0.9885
Adjusted R^2	0.7718	0.9690	0.9865
F-statistic	23.5298***	209.0823***	493.47***
DW-statistic	1.9866	1.7685	1.8000

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(iv) Number of observations is 1380.

5.3.3. Hypotheses testing based on Industry Categorization

The purpose of this investigation is to extend earlier results on the relationship between CSRD, IO and CFP. A reasonable reason for the need of additional investigation is because this section reports a rich body of evidence from specific samples or industrial categories. Almost all of the previous evidence is derived from composite samples of companies from various industries (Mahoney and Roberts, 2007; Griffin and Mahon, 1997; and Waddock and Graves, 1997). Hence, there is a need to investigate more detail or specific that the analysis is divided into more specific industry or company-level (Mahoney and Roberts, 2007). This investigation attempts to make a contribution to the debate by providing empirical evidence from a single industry that has a set of

unique characteristics and offers additional insights into the question (Simpson and Kohers, 2002). Chand (2006) asserts that when the research is concerned with a single industry, there will be huge validity and accuracy.

Companies tend to provide detailed information specifically about their industry (Dye and Sridhar, 1995). For instance, an industry that uses intensive manpower like manufacturing will choose to disclose more information about their workers information compared to a company in the producer's extractive material and chemical industries that may probably disclose more information about the environment to reflect sensitivity concerning their special issues (Cowen et al., 1987). Whereas, in the consumer product industry orientation, one might expect more disclosure concerning social aspects to improve the image of their business among consumers in the market, which in turn influences the amount of sales.

In this way, the influence of the industry, as explained above, will influence the CSR practice for each company and is dependent on how critical the impact of their economic activity is in the community. This section reports the estimation results for selected industries with the largest number of companies in the 200 highest market capitalization categories comprising – financial industry, industrial product, property industry and trading and service industry.

5.3.3.1. CSRD, CFP and IO for the Finance Industry

Two results of hypotheses testing are presented in this section; first, results of hypothesis testing between CSRD and dimensions of CSRD on CFP; and lastly, results from the hypothesis testing between CSRD and dimensions of CSRD on IO. Table 5.18

Table 5.18
Results of the Relationship between CSRD on CFP for Finance Sector

Variables	CSR on CFP			Dimension of CSR on CFP		
	Model 1.1 (ROA): Equation (4.16)	**Model 1.2 (R*i*): Equation (4.16)**	**Model 1.3 (Q): Equation (4.16)**	**Model 2.1 (ROA): Equation (4.17)**	**Model 2.2 (R*i*): Equation (4.17)**	**Model 2.3 (Q): Equation (4.17)**
CSRD	3.40E-02***	-0.0090***	0.0008***			
	(0.0127)	(0.0033)	(9.80E-05)			
MPLD				0.0167	-0.0334***	-0.0410***
				(0.0166)	(0.0092)	(0.0060)
COMD				-0.0244**	-0.0205*	-0.0302***
				(0.0010)	(0.0103)	(0.0040)
PROD				0.0285***	0.0069	0.0208***
				(0.0070)	(0.0088)	(0.0063)
ENVD				0.0284***	-0.0051	0.0052
				(0.0106)	(0.0079)	(0.0053)
BETA	0.0408	0.1799***	0.0165***	0.1217**	0.1749***	-0.0181
	(0.0509)	(0.0259)	(0.0009)	(0.0614)	(0.0273)	(0.0182)
LEV	0.1062***	-0.0171***	1.1244***	0.1152***	-0.0116**	1.1276***
	(0.0033)	(0.0033)	(5.41E-05)	(0.0044)	(0.0046)	(0.0034)
LSIZE	0.1747***	0.0430**	0.1846***	0.1710***	0.0515***	0.4404***
	(0.0347)	(0.0178)	(0.0018)	(0.0391)	(0.0172)	(0.0362)
LSALES	-0.1261***	0.0157	-0.1991***	-0.1243**	0.0159	-0.0938***
	(0.0477)	(0.0292)	(0.0016)	(0.0493)	(0.0284)	(0.0228)
ATR	-0.0796***	0.0332**	0.1072***	-0.0777***	0.0310**	0.0603***
	(0.0227)	(0.0137)	(0.0007)	(0.0240)	(0.0137)	(0.0113)
EPS	0.0058***	0.0004	5.60E-05***	0.0056***	0.0003	0.0011***
	(1.07E-03)	(0.0003)	(7.4E-06)	(0.0011)	(0.0003)	(0.0012)
R^2	0.8665	0.4730	0.9707	0.8833	0.4775	0.9767
Adjusted R^2	0.8373	0.3575	0.9602	0.8547	0.3496	0.9734
F-statistic	29.6257***	4.0947***	84018.97***	30.9346***	3.7341***	302.929***
DW-statistic	1.9344	1.8265	1.6311	1.9167	1.8583	1.6472

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01, Number of observations is 182.*

reports hypotheses testing results of the relationship between CSRD and dimensions of CSRD on CFP. The findings show that the majority of *t* test results of independent variables for all three models are significant at least at the 10 percent level.

The overall *F* test for the three models rejects the null hypothesis. This indicates that the variation of the dependent variable is explained well by the independent variables. The adjusted R^2, as measurement of the goodness of fit in the three models diverges, ranging between 0.3575 and 0.9602, respectively. The CSRD variable is significant positively related to CFP represented by ROA and Tobin's *q*. These results are consistent with a previous study in the developed market by Simpson and Kohers (2002) found a positive relationship between corporate social and financial performance in the finance sector.

In addition, a detailed analysis based on dimensions of CSRD is also reported in Table 5.18. At least one of three models is significantly different from zero, but significant levels of variables indicate mixed results. Employee relation (MPLD) is negative and significantly different from zero at the 1 percent level in Models 2.2 and 2.3. Community involvement (COMD) is negative and significantly related to CFP for all three models at least at the 10 percent level. Whereas, Product dimension (PROD) is significant and positively related to CFP in Models 2.1 and 2.3. There is a contrary result for the Environmental dimension (ENVD) variable, this variable is significant positively related to CFP in Model 2.1 only.

According to a study by Abdul Hamid (2004), he found that product dimension is widely disclosed among dimensions in financial institutions. It is assumed that the extensive disclosure in product dimension influences customer perception on the

performance of the company. Also because of the Asian financial crisis, the largest impact was felt by financial institutions, and, for this reason, by making such disclosure, it will create confidence among investors and customers to place their money within financial institutions. There is a general perception that the financial sector, such as banking companies, as an activity has small environmental issues, therefore, few companies in this sector disclose information related to environmental issues.

Table 5.19 presents the relationship between CSRD and dimensions of CSRD on percentage of shareholding by institutional investors. Considering the goodness of fit the coefficient value of adjusted R^2 in three models ranges between 0.9718 and 0.9724. This indicates that the variation in IO explained by the independent variables is high. The overall good fitness test or the *F* tests on the models that have rejected the null hypothesis at the $p<0.01$ level of statistical significance. Thus, it can be concluded that there does appear to be an association between the dependent variable and the independent variables.

The findings of regression using the GLS with FEM notice that some of the independent variables in the model are related to IO. The main variable, CSRD is significant negatively related to IO at $p<0.01$ in all three models. In additional analysis, the relationship between dimensions of CSRD and IO is reported in Table 5.19. Three dimensions of CSRD variables are significant, namely, community involvement dimension (COMD) is significant negatively related to IO at $p<0.01$ in all three models. Product dimension (PROD) and environmental dimension (ENVD) are significant positively related to IO at least at $p<0.05$ in all three models. The results related to

Table 5.19
Results of the Relationship between CSRD on IO for Finance Sector

Variable	CSR on IO			Dimension of CSR on IO		
	Model 3.1: Equation (4.18)	**Model 3.2: Equation (4.18)**	**Model 3.3: Equation (4.18)**	**Model 4.1: Equation (4.19)**	**Model 4.2: Equation (4.19)**	**Model 4.3: Equation (4.19)**
CSRD	-0.17180***	-0.1630***	-0.1555***			
	(0.0548)	(0.0541)	(0.0587)			
MPLD				0.0192	0.0126	0.0295
				(0.1002)	(0.1085)	(0.1149)
COMD				-0.5640***	-0.4787***	-0.5343***
				(0.0945)	(0.0959)	(0.1098)
PROD				0.3153***	0.3622***	0.2906**
				(0.1116)	(0.1162)	(0.1297)
ENVD				0.5329***	0.5245***	0.5427**
				(0.1928)	(0.1922)	(0.2212)
ROA	-2.8126**			-2.3676**		
	(1.1196)			(1.0986)		
Ri		-1.0209***			-0.9127**	
		(0.3240)			(0.3339)	
Tobin's Q			0.8242***			0.7424***
			(0.1872)			(0.1969)
BETA	-0.5674***	-0.5329***	-0.6567***	-0.1889	-0.1795	-0.2662
	(0.1286)	(0.1269)	(0.1604)	(0.1455)	(0.1386)	(0.1769)
LEV	-0.0459	-0.0558*	-0.9660***	-0.0013	-0.0291	-0.8269***
	(0.0324)	(0.0284)	(0.2159)	(0.0490)	(0.0482)	(0.2233)
LSIZE	-1.1140***	-1.0130***	-1.7399***	-1.1262***	-1.0528***	-1.6602***
	(0.2797)	(0.2677)	(0.3291)	(0.2668)	(0.2491)	(0.3206)
LSALES	0.3930*	0.4836**	0.8150***	0.2190	0.3290	0.6218***
	(0.2128)	(0.2128)	(0.2318)	(0.2109)	(0.2060)	(0.2303)
ATR	-0.1122	-0.1119	-0.3028	0.0800	0.0972	-0.0932
	(0.1687)	(0.1758)	(0.1927)	(0.1401)	(0.1451)	(0.1617)
EPS	-0.0037	-0.0069*	-0.0078*	-0.0034	-0.0067	-0.0073*
	(0.0035)	(0.0041)	(0.0043)	(0.0034)	(0.0041)	(0.0043)
R^2	0.9738	0.9733	0.9736	0.9737	0.9732	0.9734
Adjusted R^2	0.9724	0.9718	0.9721	0.9721	0.9715	0.9718
F-statistic	701.187***	654.5099***	680.5738***	625.146***	575.279***	601.1656***
DW-statistic	1.5745	1.5693	1.6051	1.5336	1.5345	1.5589

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observations is 128

social spending indicate that institutional investors are more concerned with environment and product quality than other dimensions in the finance industry.

5.3.3.2. CSRD, CFP and IO for the Industrial Product

Findings of the relationship between CSRD and CFP for Industrial product are reported in Table 5.20. Except the ATR variable in Model 1.2, all of the variables are significantly related to CFP represented by ROA, Ri and Tobin's Q variables. CSR is significant positively related to CFP at $p<0.001$ in Model 1.1 and 1.3, but significant negatively related in Model 1.2. These results support the hypothesis indicating that companies involved in disclosing their CSR activities enhance CFP in the industrial product.

BETA and LEV are measurements of risk levels of companies and have mixed findings. BETA is positive and significantly related in Models 1.1 and 1.3, but significant and negatively related in Model 1.2, whereas LEV is negative and significantly related in Model 1.2 and positive and significantly related in Models 1.2 and 1.3. These results indicate that risk level and liabilities ratio is determinant factors that influence CFP in either a positive or negative manner. LSIZE has a positive and significantly impacted on CFP in all three models. LSALES is negative and significantly related to CFP in all three models, and, lastly, ATR and EPS have a mixed influence on CFP in industrial product.

Comparing the four dimensions of CSRD, as shown in Table 5.20, only employee relations (MPLD) is positive and significantly related to CFP in all three models, at least, at $p<0.005$, while the product dimension (PROD) is positive and significantly related in Models 1.1 and 1.3, but negative and significantly related to CFP in Model

Table 5.20
Results of the Relationship between CSRD and CFP for Industrial Product

Variables	CSR on CFP			Dimension of CSR on CFP		
	Model 1.1 (ROA): Equation (4.16)	**Model 1.2 (R*i*): Equation (4.16)**	**Model 1.3 (Q): Equation (4.16)**	**Model 2.1 (ROA): Equation (4.17)**	**Model 2.2 (R*i*): Equation (4.17)**	**Model 2.3 (Q): Equation (4.17)**
CSRD	0.0008***	-0.0140***	0.0059***			
	(8.58E-05)	(0.0033)	(0.0001)			
MPLD				0.0022***	0.0143**	0.0112***
				(0.0002)	(0.0057)	(0.0001)
COMD				-.0062***	0.0118	-0.0283***
				(0.0006)	(0.0101)	(0.0004)
PROD				0.0032***	-0.0494***	0.0182***
				(0.0002)	(0.0049)	(0.0002)
ENVD				-.0020***	-0.0176	-0.0147***
				(0.0003)	(0.0164)	(0.0003)
BETA	-0.0048***	0.0497***	-0.0092***	-.0049***	0.0663***	-0.0126***
	(0.0003)	(0.0145)	(0.0005)	(0.0003)	(0.0158)	(0.0007)
LEV	-0.9000***	0.1303**	1.0312***	-0.1004***	0.0949	1.0513***
	(0.0113)	(0.0622)	(0.0032)	(0.0113)	(0.0578)	(0.0031)
LSIZE	0.0186***	0.0317**	0.3477***	0.0205***	0.0411***	0.3603***
	(0.0005)	(0.0133)	(0.0010)	(0.0005)	(0.0130)	(0.0011)
LSALES	-0.0075***	-0.0930***	-0.2606***	-0.0058***	-0.1153***	-0.2317***
	(0.0019)	(0.0282)	(0.0019)	(0.0019)	(0.0301)	(0.0016)
ATR	0.0586***	-0.0046	0.4512***	0.0525***	0.0075	0.3864***
	(0.0023)	(0.0177)	(0.0027)	(0.0020)	(0.0187)	(0.0022)
EPS	0.0013***	0.0012***	-0.0003***	0.0013***	0.0013***	-.0005***
	(1.78E-05)	(0.0002)	(5.96E-06)	(1.61E-05)	(0.0003)	(7.54E-06)
R^2	0.8779	0.2850	0.9756	0.9314	0.3715	0.9752
Adjusted R^2	0.8770	0.1385	0.9747	0.9161	0.2319	0.9741
F-statistic	42.9412***	1.9467***	1098.263***	61.7804***	2.6601***	928.1559***
DW-statistic	1.9795	2.0019	1.7179	2.0326	2.0245	1.6274

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01, Number of observations is 254.*

1.2 at the 1 percent level. The community involvement dimension (COMD) and environmental dimension (ENVD) are negative and significantly influenced by CFP in Models 1.2 and 1.3. These results indicate that disclosure of employee relations and products for industrial product are more important than other dimensions. The companies in this sector disclosed more employee relation information and community involvement information.

The results of hypotheses testing the relationship between CSRD and dimensions of CSRD on IO, represented by percentage of shares owned by institutional investors (PERCIO), are reported in Table 5.20. The coefficient on CSRD is revealed to be positive and highly statistically significant ($p<0.01$) in all three models. This indicates that disclosure by companies of CSR activities has a positive responded by institutional investors in industrial product. Except LSIZE and LSALES variables, all of the control variables are consistent with theory. For example, BETA and LEV are negative and significantly associated with IO. As investors seek risk-aversion, they tend to avoid investing in companies that have a higher BETA and debt ratio. Whereas, LSIZE and LSALES are found to be negative and partially statistically significant ($p<0.05$), which may deter institutional investors, especially short-term investors, investment trusts and unit trusts who assume that the higher the companies' leverage is the higher the risk of bankruptcy, consequently, discouraging these institutional investors (Cox et al., 2004; Chaganti and Damanpour, 1991).

The portfolio efficient market hypothesis suggests that investors consider the effects of publicly available information on both future cash flow and investment risk simultaneously (Graves and Waddock, 1994). Therefore, institutional investors will tend to choose less risky shares in companies that are more socially responsible. There

Table 5.21
Hypothesis Testing Results of CSRD on IO for Industrial Product

Variable	CSR on IO			Dimension of CSR on IO		
	Model 3.1: Equation (4.18)	**Model 3.2: Equation (4.18)**	**Model 3.3: Equation (4.18)**	**Model 4.1: Equation (4.19)**	**Model 4.2: Equation (4.19)**	**Model 4.3: Equation (4.19)**
CSRD	0.0433***	0.2629***	0.0455***			
	(0.0067)	(0.0281)	(0.0077)			
MPLD				0.0271**	0.5727***	0.0246*
				(0.0130)	(0.0677)	(0.0129)
COMD				0.0676*	0.0135	0.0845**
				(0.0378)	(0.0791)	(0.0348)
PROD				0.0773***	0.3259***	0.0761***
				(0.0191)	(0.0575)	(0.0202)
ENVD				0.0410	0.0310	0.0349
				(0.0322)	(0.1561)	(0.0367)
ROA	0.2357***			0.2492**		
	(0.0773)			(0.0958)		
Ri		-0.4775**			-0.5931**	
		(0.2290)			(0.2781)	
Tobin's Q			-0.0201***			-0.0145*
			(0.0072)			(0.0078)
BETA	-0.5165***	-2.26278***	-0.5172***	-0.5315***	-2.7228***	-0.5248***
	(0.0183)	(0.1595)	(0.0178)	(0.0201)	(0.1378)	(0.0195)
LEV	0.1439*	0.3662	-0.0847**	0.1938**	0.2915	-0.0540
	(0.0815)	(0.2262)	(0.0381)	(0.0930)	(0.2283)	(0.0398)
LSIZE	-0.1769***	-0.0751	-0.0782***	-0.2129***	0.0337	-0.1282***
	(0.0236)	(0.1493)	(0.0247)	(0.0257)	(0.1539)	(0.0274)
LSALES	-0.1270***	0.2208**	-0.1121***	-0.0971**	0.2879***	-0.0814**
	(0.0414)	(0.0912)	(0.0373)	(0.0454)	(0.1007)	(0.0411)
ATR	0.6658***	0.2890	0.7306***	0.5973***	0.1314	0.6450***
	(0.0899)	(0.3898)	(0.0828)	(0.0969)	(0.4215)	(0.0857)
EPS	0.0044***	0.0010	0.0038***	0.0047***	0.0004	0.0042***
	(0.0002)	(0.0010)	(0.0002)	(0.0002)	(0.0014)	(0.0002)
R^2	0.9770	0.9720	0.9766	0.9773	0.9717	0.9768
Adjusted R^2	0.9764	0.9704	0.9759	0.9767	0.9699	0.9760
F-statistic	1593.64***	592.4359***	1400.411***	1601.961***	526.6908***	1356.578***
DW-statistic	1.5464	1.5216	1.5408	1.5438	1.5767	1.5379

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observations is 254.

are consistent results when using dimensions of CSRD variables reported in Table 5.21. Three dimensions of CSRD are found to be positive and significantly associated with IO. The employee relation dimension (MPLD) is positive and significantly related to IO at least at $p<0.10$. Community involvement (COMD) is found to be statistically positive and significantly related to IO at $p<0.10$ in Model 4.1 and $p<0.05$ in Model 4.3. Whereas, the product dimension (PROD) is shown to be statistically positive and significantly related to IO at $p<0.01$ in all three models.

The results of the relationship between CSRD and dimensions of CSRD to CFP industrial product reveal that, in general, CSRD and two dimensions of CSRD, namely, employee relations dimension and product dimension are positive and significantly related to CFP, whereas, two dimensions of CSRD, namely, the community involvement dimension and the environmental dimension are found to be statistically negative and significantly related to CFP. Findings in this section support the recent study by Janggu, Joseph and Madi (2007), which reveal the existence of a partially positive relationship between CSRD and profitability of industrial companies in Malaysia.

Further analysis found three dimensions of CSRD to be positive and significantly related with IO, comprising employee relations dimension, community involvement dimension, and product dimension. These results suggest that companies in industrial product have to focus on being engaged in CSRD, specifically, some dimensions of CSRD. Hence, involvement in CSR may possibly produce better CFP and a good response from institutional investors. Warhurst (2001) suggests that when companies in industrial product, pay more attention and are actively involve and promote CSR activities it assists in the prosperity and the life quality of the community.

5.3.3.3. CSRD, CFP and IO for the Property Industry

This section reports on hypotheses testing results between CSRD and dimensions of CSRD on CFP as well as IO. Table 5.22 presents the findings of hypotheses testing results of the relationship between CSRD and dimensions of CSRD on CFP utilizing GLS with FEM. The result of the CSRD as the main variable was found to be negative and significantly related to CFP at $p<0.01$ in Model 1.1 only, whereas the other models are not significant. Except EPS for Model 1.2, all of the control variables are significantly different from zero, at least at the 10 per cent levels in all three models. This means that explanatory variables properly explain CFP. Considering the goodness of fit the coefficient of adjusted R^2 in three models are 87.92, 78.95 and 97.17 respectively. This means that at least 78.95 percent of variability of regressor variables is explained by explanatory variables.

Referring to the dimensions of CSRD results, as also reported in Table 5.22, only ENVD is positive and significantly related to CFP at the 1 percent level in all Models, followed by PROD, which is positive and significantly related at the 10 percent in Models 2.1 and 2.3, whereas, MPLD and COMD only have partial significance in all three models. These results indicate that environmental and product dimensions are more important and statistically significantly influence CFP in the property industry.

Furthermore, Table 5.23 shows the hypotheses testing of estimation results for the relationship between CSRD and dimensions of CSRD on IO employing GLS with FEM in the property industry. The adjusted R^2, which measures the goodness of fit, varies among models with Models 3.1, 3.2, and 3.3 standing at 94.65, 94.56 and 95.13 percent respectively, in which some of the independent variables properly explain their dependent variable.

Table 5.22
Hypothesis Testing Results of CSRD on CFP for the Property Industry

Variables	CSR on CFP			Dimension of CSR on CFP		
	Model 1.1 (ROA): Equation (4.16)	**Model 1.2 (R*i*): Equation (4.16)**	**Model 1.3 (Q): Equation (4.16)**	**Model 2.1 (ROA): Equation (4.17)**	**Model 2.2 (R*i*): Equation (4.17)**	**Model 2.3 (Q): Equation (4.17)**
CSRD	-0.0022***	-0.0068	0.0017			
	(0.0007)	(0.0057)	(0.0031)			
MPLD				-0.0065***	-0.0208	0.0066
				(0.0005)	(0.0155)	(0.0060)
COMD				-0.0017	0.0285***	-0.0119**
				(0.0026)	(0.0103)	(0.0050)
PROD				0.0209***	0.0579***	-0.0061
				(0.0040)	(0.0052)	(0.0059)
ENVD				0.0155***	0.0677***	0.0234***
				(0.0052)	(0.0074)	(0.0059)
BETA	0.0063*	0.2120***	0.0609***	0.0273***	0.01763***	0.0902***
	(0.0036)	(0.0157)	(0.0120)	(0.0048)	(0.0142)	(0.0117)
LEV	-0.0453***	-0.3284***	1.1129***	-0.0175	-0.1746***	1.2059***
	(0.0082)	(0.0326)	(0.0185)	(0.0124)	(0.0294)	(0.0264)
LSIZE	0.0145***	0.0379***	0.2606***	0.0061*	0.0159**	0.2671***
	(0.0020)	(0.0077)	(0.0090)	(0.0032)	(0.0072)	(0.0067)
LSALES	-0.0032*	0.0276***	-0.1405***	0.0014	0.0509***	-0.1160***
	(0.0017)	(0.0086)	(0.0063)	(0.0027)	(0.0061)	(0.0067)
ATR	0.1158***	-0.8764***	0.8954***	0.01241***	-1.0909***	0.7821***
	(0.0099)	(0.1337)	(0.0442)	(0.0094)	(0.0918)	(0.0649)
EPS	0.0004***	0.0003	-0.0002**	0.0004***	-0.0008***	-0.0008***
	(5.51E-05)	(0.0002)	(9.79E-05)	(0.0001)	(0.0002)	(0.0002)
R^2	0.9164	0.8254	0.9848	0.9502	0.8213	0.9898
Adjusted R^2	0.8792	0.7895	0.9717	0.9390	0.7810	0.9775
F-statistic	53.3363***	23.0153***	316.4397***	84.7828***	20.4009***	430.0188***
DW-statistic	2.4939	2.1612	1.9131	2.4569	2.3507	1.9670

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01, Number of observations is 224.*

The *t* test value produced mixed findings within the different models. The explanatory variable, CSRD is positive and significantly related to percentage shares owned by institutional investors, at least at the 1 percent level, in all three models. This indicates that institutional investors have responded positively when companies in the property industry disclose their CSR activities. Except BETA variable, all of the control variables are significantly related to IO at least in one of the models. LEV as measurement of the debts ratio of the companies is negative and significantly related at $p<0.01$ in all three models. EPS is also positive and significantly at $p<0.01$ in all three models, whereas SIZE and ATR are positive and significantly at $p<0.01$ in Models 3.1 and 3.2 only.

Comparing the detailed analysis, as shown in Table 5.23, all of the CSRD dimensions are positive but only product dimension disclosure (PROD) and environmental dimension disclosure (ENVD) is positive and significantly at $p<0.01$ for all three models. These results are fairly consistent with empirical findings dealing with the investor reaction to social disclosures. In many such studies, it appeared that disclosure of social information caused a market reaction (For example, see Richardson et al., 1999). Investors have used social information for investment decisions, and, therefore, there should be a demand for social disclosures.

The results related to social spending clearly indicate that environment and product quality and safety concerns are more important to investors in the property industry. It appears important to investors that the environment should not be damaged, that quality and safe products be produced and that companies act responsibly (Epstein and Freedman, 1994).

Table 5.23
Results of the Relationship between CSRD and IO for the Property Industry

Variable	CSR on IO			Dimension of CSR on IO		
	Model 3.1: Equation (4.18)	**Model 3.2: Equation (4.18)**	**Model 3.3: Equation (4.18)**	**Model 4.1: Equation (4.19)**	**Model 4.2: Equation (4.19)**	**Model 4.3: Equation (4.19)**
CSRD	0.4019**	0.2917*	0.4796***			
	(0.1843)	(0.1696)	(0.1368)			
MPLD				0.3437	0.1789	0.4018
				(0.5188)	(0.4197)	(0.5348)
COMD				0.1680	0.3362	0.3751
				(0.3434)	(0.3307)	(0.3169)
PROD				0.7427***	0.1771	0.5568***
				(0.1949)	(0.1903)	(0.1827)
ENVD				2.6391***	2.7588***	2.3307***
				(0.3957)	(0.4526)	(0.4240)
ROA	1.944			-14.7168**		
	(3.6805)			(6.0929)		
Ri		-3.7710***			-5.3079***	
		(1.1301)			(1.6964)	
Tobin's Q			6.9652**			4.7847
			(2.9963)			(4.4427)
BETA	-0.0167	1.0041	-0.8735	-0.5831	0.2955	-1.3195*
	(0.4130)	(0.6342)	(0.5452)	(0.5824)	(0.6573)	(0.7303)
LEV	-2.7011***	-4.0580***	-10.5774***	-0.4529	-0.4590	-5.6188
	(0.4174)	(0.5616)	(3.3971)	(1.1894)	(1.0495)	(5.9104)
LSIZE	0.5661***	0.8158***	-1.4001	0.4138	0.1246	-1.2091
	(0.1972)	(0.2413)	(0.8596)	(0.3450)	(0.3248)	(1.1666)
LSALES	-0.4268***	-0.2117	0.3894	-0.2511	0.1506	0.3050
	(0.1554)	(0.1894)	(0.3870)	(0.2547)	(0.2388)	(0.4813)
ATR	7.9576***	3.4162	2.3799	9.7651***	0.2685	3.8271
	(1.9928)	(2.5339)	(3.4155)	(3.5259)	(3.6446)	(4.5039)
EPS	0.0165***	0.0179***	0.0186***	0.0017	-0.0074	0.0007
	(0.0028)	(0.0027)	(0.0026)	(0.0081)	(0.0079)	(0.0095)
R^2	0.9558	0.9559	0.9598	0.8918	0.9800	0.9819
Adjusted R^2	0.9465	0.9456	0.9513	0.9776	0.9705	0.9777
F-statistic	102.1332***	102.2259***	112.6293	232.9431***	211.6196***	233.681***
DW-statistic	1.5829	1.6018	1.5622	1.5287	1.5234	1.5382

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observations is 224.

5.3.3.4. CSRD, CFP and IO for the Trading and Services Industry

This section presents the hypotheses testing results for the relationship between CSRD and dimensions of CSRD on CFP as well as IO using GLS with FEM for Trading and Service industry. Table 5.24 shows the results of the relationship between CSRD and dimensions of CSRD on CFP for the Trading and Services Sector. Except for the EPS variable in Model 1.3 all of the outcomes of *t*-test of the explanatory variables are significantly different from zero, at least at 5 percent levels. Adjusted R^2 shows the CFP is stylishly explained by the CSRD and other explanatory variables in which the overall estimation varies between 53.32 percent and 97.58 percent. There is no existence of first order positive serial correlation in the residuals, since the Durbin-Watson computed *d* values lies above the lower and upper *d* values are 1.697 and 1.841, respectively.

Findings of the study show that CSRD is positive and significantly related to the CFP in all three Models, suggesting that disclosure of CSR activities can support the financial performance in the trading and services industry. The control variables results are mixed coefficient in which some control variables are consistent with the theory. BETA and ATR are significantly positive in all three models, at least at the 5 percent level, suggesting that an increase in the market risk and asset turnover of companies will enhance CFP. Whereas, LEV and LSIZE are negative and significantly related to CFP in Model 1.1, but these are positive and significantly related to CFP in Models 1.2 and 1.3. The last, EPS, is positive and significantly influenced by CFP at the 1 percent level in Models 1.1 and 1.2.

Table 5.24
Hypothesis Testing Results of CSRD on CFP for the Trading and Services Industry

Variables	CSR on CFP			Dimension of CSR on CFP		
	Model 1.1 (ROA): Equation (4.16)	**Model 1.2 (R*i*): Equation (4.16)**	**Model 1.3 (Q): Equation (4.16)**	**Model 2.1 (ROA): Equation (4.17)**	**Model 2.2 (R*i*): Equation (4.17)**	**Model 2.3 (Q): Equation (4.17)**
CSRD	0.0019***	-0.0177***	0.0091***			
	(0.0001)	(0.0028)	(0.0014)			
MPLD				-0.0027***	0.0063	0.0133***
				(0.0010)	(0.0050)	(0.0050)
COMD				0.0037***	-0.0090	0.0096***
				(0.0008)	(0.0056)	(0.0033)
PROD				0.0058***	-0.0112***	0.0134***
				(0.0018)	(0.0034)	(0.0025)
ENVD				0.0011*	-0.1672***	-0.0162***
				(0.0006)	(0.0058)	(0.0027)
BETA	0.0106***	0.0549***	0.0167**	-0.0491***	0.0691***	0.0216***
	(0.0010)	(0.0052)	(0.0074)	(0.0178)	(0.0057)	(0.0067)
LEV	-0.0045**	0.4839***	0.5199***	0.0179	0.4527***	0.5244***
	(0.0020)	(0.0297)	(0.0384)	(0.0287)	(0.0317)	(0.0386)
LSIZE	-0.0091***	0.0326***	0.1265***	-0.0100***	0.0498***	0.1297***
	(0.0002)	(0.0087)	(0.0091)	(0.0023)	(0.0130)	(0.0094)
LSALES	0.0016***	-0.0221***	-0.0233***	0.0069***	-0.0323***	-0.0254***
	(0.0006)	(0.0046)	(0.0049)	(0.0021)	(0.0069)	(0.0047)
ATR	0.0356***	0.0948***	0.2311***	0.0471***	0.1482***	0.2392***
	(0.0006)	(0.0251)	(0.0115)	(0.0085)	(0.0230)	(0.0114)
EPS	5.95E-05***	0.0003***	1.01E-05	9.02E-07	0.0005***	-1.56E-06
	(2.21E-06)	(7.50E-05)	(7.25E-05)	(3.11E-05)	(0.0001)	(5.79E-05)
R^2	0.9654	0.6116	0.9782	0.7691	0.7875	0.9718
Adjusted R^2	0.9584	0.5332	0.9758	0.7190	0.7414	0.9700
F-statistic	138.3947***	7.8071***	414.4172***	15.3469***	17.0758***	558.1161***
DW-statistic	2.2390	2.4629	1.8655	2.3226	2.3664	1.8771

Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity,
(ii) DW statistic is Durbin-Watson d test for autocorrelation,
*(iii) * p < 0.10, ** p < 0.05, and *** p < 0.01, Number of observations is 287.*

Further analysis, in Table 5.24 presents the estimation results using attributes of CSRD. Overall, for all four CSRD dimensions there are mixed findings for all three models. The employee relation dimension is significantly negative in Model 2.1 but has a significant positive impact on CFP in Model 2.3 at the 1 percent level. The community involvement dimension is significantly positive in Models 2.1 and 2.3, whereas, product dimension is significantly positive in Models 2.1 and 2.3, but significantly negative in Model 2.2 at the 1 percent level. Lastly, the environment dimension variable is partially significantly positive in Model 2.1 and significantly negative in Models 2.2 and 2.3 at the 1 percent level. Thus, the community involvement dimension and product developments are important for enhancing CFP in the trading and services industry.

Findings of the relationship between CSRD and dimensions of CSRD on IO in the Trading and Service Industry are reported in Table 5.25. EPS, outcomes of all *t* test explanatory variables are significant at least in one of the three models. Adjusted R^2 shows that the proportional variation of shares owned by institutional investors is explained by explanatory variables, which in three models are higher, meaning that 97.31 percent, 97.29 percent and 97.43 percent of the variations in IO are explained by CSRD and set control variables. CSRD is only partially positive and significantly related to IO in Model 3.1. This means that disclosure of CSR activities is less important for the institutional investors in Trading and Services Industry. There are three control variables, namely, BETA, LEV and LSIZE which are significant and negative at least at the 5 percent level, whereas LSALES is positive and significantly related to IO at the 1 percent level in all three models.

Table 5.25
Results of the Relationship between CSRD and IO for Trading and Services Industry

Variable	CSR on IO			Dimension of CSR on IO		
	Model 3.1: Equation (4.18)	**Model 3.2: Equation (4.18)**	**Model 3.3: Equation (4.18)**	**Model 4.1: Equation (4.19)**	**Model 4.2: Equation (4.19)**	**Model 4.3: Equation (4.19)**
CSRD	0.0443*	-0.0455	0.0364			
	(0.0262)	(0.0284)	(0.0295)			
MPLD				0.4212***	0.3607***	0.3993***
				(0.1375)	(0.0981)	(0.1305)
COMD				-0.3171***	-0.4548***	-0.2315**
				(0.1072)	(0.0689)	(0.1113)
PROD				0.1485**	-0.0138	0.1553**
				(0.0670)	(0.0464)	(0.0727)
ENVD				0.0590	-1.1863***	-0.0100
				(0.0814)	(0.1043)	(0.0835)
ROA	-1.0150***			0.0458		
	(0.3257)			(0.7156)		
Ri		-2.8585***			-7.2269***	
		(0.4657)			(0.4931)	
Tobin's Q			-1.5526*			-2.5733***
			(0.9348)			(0.8988)
BETA	-0.4144***	-0.2502***	-0.3586***	-0.2019*	0.0178	-0.2236**
	(0.0467)	(0.0557)	(0.0643)	(0.1133)	(0.0476)	(0.0864)
LEV	-2.7646***	-1.2257**	-1.7848**	-2.3868***	0.8114*	-1.2044
	(0.5180)	(0.5823)	(0.8459)	(0.5992)	(0.4554)	(0.8966)
LSIZE	-1.5276***	-1.8479***	-1.4601***	-1.7046***	-2.0840***	-1.3754***
	(0.1529)	(0.1247)	(0.1504)	(0.1644)	(0.0873)	(0.1760)
LSALES	0.6801***	0.7546***	0.6630***	0.6693***	0.7217***	0.5891***
	(0.1006)	(0.0724)	(0.1081)	(0.1015)	(0.0430)	(0.1151)
ATR	-0.3655*	0.1769	-0.0091	0.0412	1.2561***	0.5043
	(0.1998)	(0.2044)	(0.2794)	(0.2567)	(0.1593)	(0.3373)
EPS	-0.0009	0.0008	-0.0016	0.0017	0.0032***	0.0006
	(0.0010)	(0.0011)	(0.0014)	(0.0017)	(0.0008)	(0.0018)
R^2	0.9760	0.9758	0.9770	0.9784	0.9793	0.9794
Adjusted R^2	0.9731	0.9729	0.9743	0.9756	0.9769	0.9787
F-statistic	340.8095***	336.7246***	367.9555***	382.0321	414.3332***	419.3176***
DW-statistic	1.5055	1.6585	1.5289	1.5334	1.8346	1.5540

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observations is 287.

The detailed analysis, which utilizes dimensions of CSRD, is also presented in Table 5.25. Considering the goodness of fit the coefficient of adjusted R^2 in three models stands at 0.9756, 0.9769 and 0.9787 respectively. This means that at least 97.56 percent of variability regressor variables are explained by explanatory variables. Overall, the four items of CSRD variables are significantly related to institutional ownership in at least one of the three models. MPLD is positive and significantly influenced by IO in all three models at the 1 percent level, whereas, PROD is significantly positive in Models 4.1 and 4.2 at the 5 percent level. COMD is negative and significantly related with IO at the 1 percent level in all three models, and ENVD is only significant but negative at the 1 percent level in Model 4.2. These results suggest that disclosures for employee relation and information of product safety and quality are more crucial for the institutional investors in the Trading and Services Industry.

Table 5.26 presents a brief summary of the results of the hypotheses testing. The hypotheses testing results indicate support for previous studies in the developed market that CSR is positive and significantly related to CFP and IO. However, two dimensions of CSRD do not support the positive hypothesis relationship between CSRD dimensions and IO, namely, community involvement dimension and the environmental dimension, which is negative and significantly related to IO (PERCIO). These findings indicate that institutional investors may still consider and regard both dimensions of CSRD as costs rather than investment.

Table 5.26
Summary of Hypotheses Testing Results

Hypothesis	Statement of hypothesis	Test Used	Result	Support/Do not support Hypothesis
H1	*CSRD is positively related to CFP*	GLS with FEM	Positive significant at p<0.01 (Table 5.15)	Support Hypothesis
H2	*The Employee Relations dimension is positively related to CFP*	GLS with FEM	Positive significant at p<0.01 (Table 5.15)	Support Hypothesis
H3	*Community Involvement dimension is positively related to CFP*	GLS with FEM	Positive significant at p<0.01 (Table 5.15)	Support Hypothesis
H4	*Product dimension is positively related to CFP*	GLS with FEM	Positive significant at p<0.01 (Table 5.15)	Support Hypothesis
H5	*Environment dimension is positively related to CFP*	GLS with FEM	Positive significant at p<0.01 (Table 5.15)	Support Hypothesis
H6	*CSRD is positively related to IO.*	GLS with FEM	Positive significant at p<0.01 (Table 5.16)	Support Hypothesis
H7	*Employee Relations dimension is positively related to IO*	GLS with FEM	Positive significant at p<0.01 (Table 5.16)	Support Hypothesis
H8	*Community Involvement dimension is positively related to IO*	GLS with FEM	Negative significant at p<0.01 (Table 5.16)	Do not support Hypothesis
H9	*Product dimension is positively related to IO*	GLS with FEM	Positive significant at p<0.01 (Table 5.16)	Support hypothesis
H10	*Environment dimension is positively related to IO*	GLS with FEM	Negative significant at p<0.01 (Table 5.16)	Do not support Hypothesis
H11	*CSRD and IO are positively related to CFP*	GLS with FEM	Positive significant at p<0.01 (Table 5.17)	Support Hypothesis

5.4. Summary

This chapter presented the analysis of CSRD and its relationship with CFP and IO for PLCs in Bursa Malaysia during the period from 1999 to 2005. Results of the content analysis show that CSRD involved four dimensions, namely, employee relations dimension, community involvement dimension, product dimension, and environment dimension in the Malaysian companies. Providing assistance and/or benefit for employees have the highest percentage of disclosure in the employee relations dimension. Charity programme is the most popular in community involvement dimension, followed by cash donation programme. Product development is the largest part engaged in product dimension. Lastly, pollution control is widely reported in environment dimensions.

Findings in this section reveal that CSR activities and disclosures of PLCs in Malaysia increased during the period from 1999 to 2005 but were limited on common statement and discontinuity. Specific findings reveal that the employee relations dimension has the highest level of disclosure and product dimension is the second highest, followed by the community involvement dimension and the environment dimension. It reveals that the Plantation Industry has the highest level of disclosure and Infrastructure is the second, followed by Consumer Product, Construction, Trading and Services, Finance, Industrial Product, Properties, Technology and Hotel, respectively.

In general, results of the estimation analysis found that except for hypothesis 8 and 10, all of the estimation analysis supports the hypotheses in this study. The findings confirm that the directional effect of CSRD and CFP uses GLS with FEM. The findings conclude that CSRD and dimensions of CSRD are positive and significantly related to CFP in the

Malaysian PLCs. The findings also suggest a positive and significant relationship between CSRD and two dimensions of CSRD, namely, employee relation dimension and product dimension on IO, whereas community involvement dimension and environment dimension is significant but negatively related to IO. Lastly, both CSRD and percentage of shares owned by institutional investors (PERCIO) support the hypothesis and are positive and significantly related to CFP.

CHAPTER SIX
DISCUSSION

6.1. Introduction

This chapter provides the results and discussion from the empirical data analysis. The chapter is organized as follows: Section 6.2 discusses results of CSRD in the Malaysian PLCs, and the hypotheses testing of the relationship between CSRD and its dimensions on CFP. Section 6.3 discusses the hypotheses testing results of the relationship between CSRD and its dimensions on IO. Section 6.4 discusses results of the hypotheses testing of the relationship between CSRD and IO on CFP, followed by a discussion of CSRD and CFP as well as IO in industrial categorization in section 6.5. This chapter ends with a brief summary in section 6.6.

6.2. CSRD in the Malaysian PLCs

This research uses longitudinal disclosure over a seven year period. As a result, during this period it is revealed that the participation of companies' involvement in CSR activities is increasing both in terms of the amount of disclosure as well as the number of participating companies. However the growing level of involvement and disclosure of CSR activities is still limited with general information and qualitative statements. Hence, this result suggests that the situation of CSRD in Malaysia is at an emerging period with respect to disclosure of CSR activities.

Results of the voluntary disclosure of CSR for PLCs in Malaysia expanded over a longer time period by employing a longitudinal analysis, found that a number of companies

disclosed their CSR activities. At least one item of CSRD dimensions have increased gradually, ranging from 416 in year 1999, to 701 in year 2005. Nevertheless, the quality of information that companies disclosed is low and limited. Most companies used one or two sentences for one item of the employee relation dimension. Below are example statements made by various company chairpersons:

"I would also like to thank the management and staff for their unrelenting commitment, loyalty, hard work and dedication and support throughout these trying years." (Naluri Berhad, Annual Report, 2004:11).

"I would like to express our gratitude and appreciation to all our employees for their dedicated service and contribution to the success of the group. To our shareholders, valued customers, business associates and governmental authorities, I would like to convey our sincere thanks for their continued support and confidence in the group." (BCB Berhad, Annual Report, 2005:10).

Recent surveys by Bursa Malaysia confirmed that PLCs demonstrated less appreciation and a lack of awareness in taking CSR policies and disclosures in part of company activities (Jason, 2008). It may be that disclosure of CSR activities is costly indicating that only certain companies decide to disclose their CSR activities and subsequently adopt set disclosure policies. Consequently, it can be expected that the degree of disclosure of CSR activities determined by the cost relative and benefits of disclosing such information (Cornier and Magnan, 2007; Li and McConomy, 1999). Hence only 32 out of 200 PLCs in Malaysia disclosed their CSR activities consistently in their annual reports under the heading of "Corporate Social Responsibility". Prior literature reveals that these costs and benefits vary with pressure from external stakeholders such as regulators, society,

environmental activists, consumers and socially responsible investors (Sinclair-Desgagne´ and Gozlan, 2003; Li, Richardson, and Thornton, 1997).

There are four dimensions of CSRD. Using the content analysis technique, it was found that information on CSR activities which related to employee relations was the most disclosed by the Malaysian PLCs, followed by community involvement and the environment. This result is consistent with prior studies that found employee relations to be the most popular disclosure compared with other dimensions in the Malaysian PLCs (e.g. Haniffa and Cooke, 2005; Abdul Hamid, 2004; Kuasirikun and Sherer, 2004; Thompson and Zakaria, 2004; Williams and Pei, 1999; and Kin, 1990; Grey et al., 2001; Abu-Baker and Nasser, 2000; Imam, 2000; ; Tsang, 1998, Hedge et al., 1997; Hackson and Milne, 1996; Savage, 1994; and Guthrie and Parker, 1990).

According to industrial categories, the plantation industry has the highest disclosure of CSR activities with a mean score of 2.09, followed by consumer products at 1.87, construction at 1.84, trading and services at 1.58, finance at 1.54, industrial products at 1.20, property at 0.96, technology at 0.84 and hotel at 0.29. There are differences in the disclosure level for each CSRD dimension between the different industries. For example, the plantation and construction industries which have a significant impact on nature and the environmental, disclose more environmental information than other industries.

The tobacco and alcoholic drink industries are associated with highly discernible social problems such as health and crime. These industries must be concerned with disclosing product and community involvement related activities. By acknowledging the stature of

their name among the community, companies individually make of good relationships with local society very important. Hence, some companies in this industry such as British American Tobacco (M) Berhad, Carlsberg Brewery Malaysia Berhad and Guinness Anchor Berhad are actively involved in disclosing their CSR activities. Furthermore in anticipation of pressure from various stakeholders such as NGOs, consumers and governmental bodies, these companies also show that they make an important contribution to the public and the nation.

The degree of disclosure on the environment dimension is lower compared to other dimensions during the time period of the study. This indicates that the awareness and involvement of companies in this dimension is less than others. Even though there is a guideline on environmental reporting for the Malaysian companies (ACCA, 2003), there is no statutory requirement for PLCs to disclose environmental information to the public in Malaysia (Nik Ahmad and Sulaiman, 2004). Hence, the authority of Bursa should make this disclosing practice mandatory so that it is easier to monitor the Malaysian PLCs, especially to the plantation companies which are known to have the potential to do damages to the ecosystem (Othman and Ameer, 2010).

Better economic growth and education levels of the Malaysian community have caused an apparent increase in public concern and awareness of business operational impact on environment disasters. This could also be caused by the prominent role played by NGOs such as the Association of the Surveillance of the Malaysian Environment and *Sahabat Alam Malaysia* (SAM) in lobbying for environmental conservation (Haniffa and Cooke, 2005). Tight media supervision and extensive coverage of environmental problems has

also helped raise public concern for the damaging effects caused on the natural environment by various companies. Intensive pressure coming from various groups of stakeholders is a signal for companies to act responsibly and be more apprehensive towards the environment.

According to Perry and Sheng (1999), in Singapore there are three general reasons why companies report less on their environmental activities. First, the perception is that their companies do not have an impact on the environment; second, a lack of advantage either in terms of status with respect to consumers or within the business community, and finally a lack of pressure from the government. The similarities between Malaysia and Singapore appear to be possible reasons why only a limited number of Malaysian companies disclose their environmental dimensions (Thompson and Zakaria, 2004).

Incentives from the government in providing prizes or awards, such as The Prime Minister's CSR Award and Malaysia Environmental and Social Reporting Awards (MESRA) organized by ACCA as well as pressure from other stakeholders may change companies' perceptions on environmental issues. The ISO 14001 certification has some level of influence on the voluntary environmental reporting behaviour among Malaysian companies, specifically on pollution abatement and other environmental related information (Sumiani et al., 2007).

There is a possibility that the ISO 14001 certification influences companies to practice and disclose more on their environmental dimension. This certification not only provides conviction to external interest groups, it also proves that the companies exercise control

and are actively complying with the regulations and legislation concerning the environment, thus continually improving their environmental practices. The high concern among companies for the ISO is also a result of global economic pressure arising to the companies being actively involved in business globally. Malaysia is one of the very fast developing countries in the Asian region. Most of the market in developed countries requires strict regulation against products from developing countries entering the international market. The Malaysian PLCs could possibly receive pressure from various parties to compete as suppliers. Therefore the Malaysian PLCs need to be more aware with greater focus on environmental issues so they can easily infiltrate the international market. Economic growth could act as an incentive for companies to involve themselves in natural protection initiatives.

The findings above suggest that companies should care about CSRD in their annual reports as even though certain companies are involved in CSR activities, they do not always disclose such activities in their annual reports (Amran and Selvaraj, 2007). Other studies also found that CSR activities which companies disclosed in annual reports is fewer compared with the extent of contribution in CSR activities made by companies (Mohd Ghazali, 2007; Rashid and Ibrahim, 2002; and Teoh and Thong, 1984). Hence based on these results, companies need to pay attention to their CSR activities and disclosure. According to arguments of slack resource theorists, increased CSR activities are followed by better financial performance (Waddock and Graves, 1997). Furthermore, it is stated that when companies have slack resources, there is more opportunity to distribute their slack resources into CSR activities.

Apart from addressing various pressures to observe socially responsible practices, other reasons companies disclose their CSR activities in the companies' annual reporting may result from a decoupling strategy for Malaysian companies to follow their business associates from overseas, who are already applying CSRD (Thompson and Zakaria, 2004). The majority of industries in Malaysia export extensively to developed markets, with the US as one of the main market. Although the awareness level of CSR by the Malaysian PLCs is far behind their business partners in these markets, copying and following their business partners in applying CSR activities has the potential to enhance demand for products from Malaysian companies in the US and other developed markets.

Certain Malaysian companies attempt to be superior corporate citizens to obtain certain contracts from the government (Amran and Selvaraj, 2007). Another reason why Malaysian companies should be concerned with better CSR practices is to attract more foreign funds as cost of capital in foreign markets is cheaper than the local market. If a company has superior CSR practices, it is easier to attract foreign institutional investors such as pension funds and SRI, thereby helping companies develop their business faster and profitably. CSR provides a good differentiation for the company's image; making it easier to recruit and retain key employees who play essential roles in sustaining business success (Investor Digest, 2003). Therefore PLCs in Malaysia need to integrate CSR activities with the company's business operations. In this regard, the company's involvement in CSR activities is an effort to build business relationships with stakeholders in order to remain sustainable in the long term of providing optimal services to its stakeholders (Amran, Ling and Sofri, 2007).

Based on these facts it can be concluded that the level of CSRD for PLCs in Malaysia is still limited to general statements. Nevertheless, the number of companies involved in CSRD is growing (Mohd Ghazali, 2007). There is a need to find different ways to support companies in not only awareness level enhancement, but also on how to become actively involved in CSR activities and disclosure. The trends in developed markets such as North America and Europe show a widespread of empirical testing of CSR on company financial performances and institutional ownerships. Hence, the following section discusses the empirical test results between CSRD and CFP as well as IO in the Malaysian context.

6.3. CSRD and CFP

As mentioned in the previous chapter, CSRD is utilized as measurement of the involvement level of the Malaysian PLCs in CSR activities. The hypothesis testing results found that CSRD variable is positive and significant related to CFP. This indicates that companies which invest more in their CSR practices will enhance their financial performance. Thus Malaysian companies which are actively involved in CSR activities are also able to create customer loyalty in the long-term. This may also improve earnings and market value of companies which are represented by a strong financial performance. These findings support prior studies by Simpson and Kohers (2002), Balabanis et al. (1998), Waddock and Graves (1997), Roberts (1992), and Cochran and Wood (1984) that found significant and positive relationships between CSR and CFP.

The better social performance of companies would ensure greater financial performance due to these companies utilizing their financial resources, manpower commitment and other interested groups efficiently (Waddock and Graves, 1997). CSR must be appreciated

as a set of actions that companies manage with harmony, when stakeholders have good responses to their CSR practices. The positive relation of CSR information towards CFP indicates that companies could increase their external reputation. Furthermore companies are able to increase the morale of employees and enhance relations with investors (Waddock and Graves, 1997).

In general, there are positive and significant relations between CSRD dimensions and CFP. This indicates that companies involved in some dimensions of CSRD have had positive reactions from stakeholders. For example, the employee relations disclosure is positive and significantly related to CFP. This result supports prior studies (Gittell et al., 2004; Tsoutsoura, 2004; Delaney and Huselid, 1996; Huselid, 1995; Snell and Youndh, 1995) that found a positive relationship between employee relations and CFP. It reveals that through a human relations approach, CFP is advanced when the managers have knowledge of and good relations with the employees. These findings suggest that managers have to improve various approaches to their employee relations, and that the impact of these approaches may increase their CFP.

There are many activities which are related to employee relations. For instance, some activities which have commonly been applied by companies include training and development programmes for employees, providing welfare support such as housing for employees, workers' day for all employees, concern for health and safety, equal opportunities for all operating units and long service employee awards.

The community involvement dimension variable is positive and significantly related to CFP. This indicates that there is no negative reaction from stakeholders when companies spend some financial resources to support the development of society. This result is contrary with prior research by Balabanis et al. (1998) who found that community involvement was negatively related to economic performance. This result reveals that Malaysian managers believe that it is essential to recognize and support community programmes and events.

There are some community activities in which companies are involved such as philanthropic activities exhibited by the company, donations, sponsorships for sports events, education, and activities related to national pride. Local companies show community support by enriching the quality of life of their community and staff. More importantly, companies should disclose all their community activities in the annual reports as it also enhances CFP when they are involved in community programmes.

A significant positive relationship between product dimension disclosure (PROD) and CFP proves that companies have to emphasise on their product dimensions such as research and development, product quality and safety, product services and so on. This result is consistent with prior studies by Mahoney and Roberts (2007); Matsui et al. (2007); Dunk (2005); Pauwels et al. (2004) which found a significant positive relationship between product dimension and CFP. The important determinant for CFP is when companies release product development and innovation in annual reports. This strategy is relevant as a tool to attract the attention of stakeholders. Product disclosure encompasses research and

development, developing new production processes, new products and services, improving product and service quality and enhancing relationship with customers and suppliers.

The environment dimension reveals that it is significantly positively related to CFP. This result supports prior studies (e.g., Mahoney and Roberts, 2007; Al-Tuwaijri et al., 2004; Salama, 2004; Balabanis et al., 1998; Griffin and Mahon, 1997; Pava and Krausz, 1996; Ullmann, 1985), which found a positive relationship between the environment dimension and CFP. This indicates that there are strong links between environmental management and enhanced future CFP as measured by accounting measures (ROA) and stock market return (Ri). This result indicates that information concerning the environmental dimension is important and companies might disclose such information as part of a strategy to improve performance (Bewley and Li, 2000). Hence, a company that chooses more media coverage on environmental activities in relation to how they carried out their environmental management such as the problem of pollution propensity, waste management and production of environmentally friendly products and services will receive positive responses from stakeholders. These activities minimize complaints against the company and are significantly positive towards CFP.

6.4. CSRD and IO

The hypothesis testing results found that CSRD and IO are positive and significantly related. This result supports previous studies by Mahoney and Roberts (2007), Cox et al. (2004), Johnson and Greening (1999), and Graves and Waddock (1994) which reported a significant positive relationship between social performance and institutional investors.

These results are consistent with the point of view that institutional investors are interested in how managers handle the social issues of their company. The same findings from prior research by Mahoney and Roberts (2007) and Graves and Waddock (1994) show that a company with a high social performance rating is more attractive to institutional investors. Moreover, these results are also consistent with previous findings (e.g. Mahoney and Roberts, 2007; Coffey and Fryxell, 1991; Teoh and Shiu, 1990) which stated institutional investors make CSR a source of important information when considering the decision to retain or release their shares in a given company.

According to the above result, there is a good opportunity to attract institutional investors to invest in PLCs in Malaysia, as institutional investors will select shares of companies that have a higher social achievement. For example, there are four fund managers from overseas that manage around US$190 billion of pension funds that pay attention to the investment potential of companies with the best practices in CSR (Ahmad, 2008). In particular, the Socially Responsible Investment (SRI) mutual fund managing an estimated US$179 billion in the US and approximately US$30 billion in Europe, are beginning to show concern for CSR and corporate governance reporting (Renneboog, Horst, and Zhang, 2008). Hence, both institutional investors and SRI are usually concerned in monitoring the involvement of companies regarding socially responsible practices when they make investment decisions. The additional investment criteria that institutional investors consider, besides being concerned with the financial performance of their investment as normal investors, also assumes that investments are an expansion of their values and social beliefs in their business environment (Webley, Lewis, and Mackenzie, 2001; Lewis and Mackenzie, 2000). Thus, if companies want to attract these investors, managers have

considered declaring their CSR activities in annual reports as an effective means of communicating with institutional investors.

Results of the relationship between the CSRD dimensions and IO reveal that the overall four dimensions are significantly related to IO. There are two dimensions namely employee relation and product, which are positive and significantly related to IO; whereas the other two dimensions namely community involvement and environment are negative and significantly related to IO. These findings reveal that there are two variables namely employee relations and product that support hypotheses 7 and 9. These results are also consistent with the latest study by Cox et al. (2004), which reported that employee relations is positive and significantly related to IO and Mahoney and Roberts (2007) who found that there is a positive and significant relationship between product dimension and IO.

These results provide evidence consistent with the conjecture that institutional investors pay attention to the way Malaysian companies manage social issues. These results are also consistent with prior studies (Mahoney and Roberts, 2007; Cox et al., 2004; Graves and Waddock, 1994; Coffey and Fryxell, 1991; Teoh and Shiu, 1990) that suggest institutional investors take CSR information into account in deciding whether to hold their shares in a given company. Hence, managers can conclude that improving socially responsible practices will not depress institutional shared ownerships (Graves and Waddock, 1994). These results indicate that Malaysian institutional investors are normally concerned with the impact of company decisions. These issues which relate to CSR activities will be more effective if communicated directly to the stakeholders. Hence, managers have to be

proactive in accommodating the requirements of institutional investors as shareholders of the company, especially in providing information about the company's involvement in CSR activities.

In contrast, results on the community involvement and environmental dimensions do not support hypotheses 8 and 10. Results of both dimensions are significantly negatively related to institutional investors. A negative link exists between the community involvement and environmental dimensions with IO. A high investment in both dimensions indicate institutional investors assuming additional costs; particularly from the short-tem institutional investors perspective such as unit and investment trusts, which make decisions based on risk and return in short-term period orientation. The extra spending may come from charitable activities such as conducting extensive donations, promoting community development plans and establishing environmental protection activities.

These results are contrary with the prior study by Cox et al. (2004), which found that both the community involvement and environment dimensions are partially positive and significant related to long-term institutional investors. However, this result supports the latest study by Mahoney and Roberts (2007) that reveals the community involvement and environment dimensions to be partially negative and significant associated with institutional investors.

Inability to find a positive relationship between community involvement activities and IO is a bad sign (Coffey and Fryxell, 1991). Whitehouse (2006) has identified some reasons

why community involvement activities such as philanthropy and donation activities receive a negative response from institutional investors. There are some reasons behind these findings: (1) philanthropy failed to add value to company reputation in the eyes of the stakeholder groups; (2) the amount of money donated does not reflect the extent of a company's social responsibility; and (3) charitable giving may have an unexpected and adverse impact on a company's reputation.

The existence of negative relations for both the community involvement and environmental dimensions to IO has some arguments, including that the institutional investors assumed that investing in both dimensions require significant financing. The extra expenditure may come from activities such as doing extensive charitable donations, promoting community development plans and establishing environmental protection activities. In particular, the environmental dimension is also assumed to have higher expenditure. In order to fulfil implementation of environmental management programmes, some companies set aside investment in their capital expenditure, such as research and development and building alternative plans, or enhancing their production processing to minimize adverse impact on the environment. These investments influence a company's cash flow during the financial reporting. However these expenditures might find the companies at an economic disadvantage compared with other companies that are less socially responsible (Balabanis et al., 1998).

Other arguments include that institutional investors in Malaysia are less concerned with both dimensions (community involvement and environment), possibly because no benefits can be taken directly into their portfolio investments. It may be that institutional investors

in Malaysia are heavily profit oriented, and particularly short-term institutional investors who just focus on making profits in shorter time periods.

Results of the relationship between CSR dimensions and IO reveal that institutional investors pay attention to how companies manage certain dimensions in the Malaysian context, and that the only focus is on employee relations and product dimensions. This indicates that institutional investors are not totally opposed to company involvement in social activities (Teoh and Shiu, 1990). However, companies can improve their advantages in social performance through proactive promotion and recruiting of managers who are concerned with environmental orientation (Simerly, 1995).

According to the discussion results in the above section, it can be concluded that there are no negative consequences from institutional investors for engaging in CSR activities. Disclosing CSR activities tends to lead to an increase in institutional ownership at given shares of companies. Institutional investors also seek to avoid risk as they could be risk aversed. Therefore with higher social performances, investment risks of companies are lowered. Hence, institutional investors can anticipate the expenses of future social problems. In deciding investment in companies which have high commitment in CSR practices, the institutional investors can avoid their social cost. In this regard, they may experience it, if they invest in companies which are less socially responsible.

6.5. CSRD, IO and CFP

Findings of the relationship between both CSRD and IO support hypothesis 11, which was found to be positive and significantly related to CFP. This result indicates that institutional

investors hold shares of companies for longer time periods when they assume that companies are more secure and profitable. It is noted that institutional investors also seek risk-aversion, therefore preferring to put money in companies that are concerned with socially responsible practices. There is a significantly positive relationship between both CSRD and IO on CFP. It can be interpreted that institutional investors decide to invest in companies with good social responsible practices, thus enhancing financial performance. According to Maug (1998), institutional investors have the ability to pressure company policies as a result of their shared ownerships. If the percentage of shareholdings by institutional investors is high, share ownership is less tradable and they are kept for long-time periods of investment. Thus institutional investors can monitor a company's management.

Results of the prior studies have proved that numerous incidents where companies that are not socially responsible produced negative impact towards their financial performance. This results in most investors avoiding and likely not investing their funds in companies that are careless in information disclosure about their social performance (Brammer and Pavelin, 2004).

A general conclusion for this study is presented in Table 6.1. Statistical analysis findings using GLS with FEM reveal that CSRD and its dimensions are positive and significantly related to CFP. It is revealed that CSRD and two dimensions, namely employee relations and product are significant and positively related to IO. Lastly, it is found that both CSRD and IO are positive and significantly related to CFP.

Table 6.1
Summary of Results of impact of CSRD on CFP and IO

DV (CFP)	ROA	Ri	Tobin's Q	ROA	Ri	Tobin's Q
CSR on CFP:						
CSRD	0.0007***	0.0047***	0.0008***	-	-	-
MPLD	-	-	-	0.0007***	0.0088***	0.0018***
COMD	-	-	-	0.0014***	0.0133***	-0.0148***
PROD	-	-	-	0.0003***	0.0177***	0.0153***
ENVD	-	-	-	0.0010***	0.0174***	-0.0134***
DV (IO)	**PERCIO**	**PERCIO**	**PERCIO**	**PERCIO**	**PERCIO**	**PERCIO**
CSR on IO:						
CSRD	0.0365***	0.0352***	0.0316***	-	-	-
MPLD	-	-	-	0.1762***	0.1655***	0.1651***
COMD	-	-	-	-0.1379***	-0.1330***	-0.1331***
PROD	-	-	-	0.1005***	0.1062***	0.1066***
ENVD	-	-	-	-0.1169***	-0.1054***	-0.1043***
ROA	-0.2349***	-	-	-0.2778***	-	-
Ri	-	3.40E-05***	-	-	3.04E-05***	-
Tobin's Q	-	-	0.0136***	-	-	-0.0113**

DV (CFP)	ROA	Ri	Tobin's Q
CSR & IO on CFP:			
CSRD	0.0007***	0.0042***	8.50E-05***
PERCIO	0.0003***	0.0007***	2.15E-05***

*Notes: ***significant at p<0.01; **significant at p<0.05.*

6.6. CSRD, CFP and IO based on Industrial Categorization

Estimation results of the relationship between CSRD and CFP based on industry categories, show mixed results. Excluding the property industry, all three industries (finance, industrial product, and trading and services) are statistically positive and significantly related to CFP. As can be seen by of the detailed analysis based on dimensions, the results are found to vary between industries. The employee relations dimension is significantly positive in the industrial product and trading and services industries, but significantly negative in the finance and property industries. Whereas estimation results for the community involvement dimension is significantly positive in the property and trading and services industries, but significantly negative in the finance and industrial product sectors. Product dimension has a significantly positive impact on CFP

in all four industries. Lastly, the environmental dimension is significantly positive in the finance and property industries, but significantly negative in the industrial product and trading and services industries.

Estimation results of the hypotheses testing showed that the relationship between CSRD and its dimensions on IO are also mixed. CSRD is significantly positive related to IO for three industries, namely industrial product, property and trading and services; whereas it is significantly negative in the finance industry. The CSRD dimensions also showed mixed results. The employee relations dimension on IO in the industrial product and trading and services industries are significantly positively related; whereas in the finance and property industries it is positive but not significant.

The community involvement dimension is significantly negative related to IO in the financial and trading and services industries; whereas it has a significantly positive impact on the industrial product industry. Furthermore, the product dimension is significantly positively related to IO in all four industries. Lastly, the environmental dimension is significantly positive influenced by IO in the financial and property industries, and it is significantly negative in the trading and services industry.

According to results of the relationship between CSRD and its dimensions to CFP in the industrial product sector of the Malaysian PLCs, CSR and two of its dimensions namely employee relations and product, are significantly positive related to CFP; whereas the two other dimensions namely community involvement and environmental are found to be significantly negative related to CFP. Findings in this section support the current study by

Janggu et al. (2007), which reveal that a partially positive relationship exists between CSR and profitability of industrial companies in Malaysia.

Further analysis found CSR and three of its dimensions comprising of employee relations, community involvement and product have a statistically positive significant relationship to IO. These results suggest that companies in industrial product must focus on being engaged in CSR, specifically some dimensions of CSRD. Hence, involvement in CSR possibly produces better CFP and potentially good responses from institutional investors. Warhurst (2001) suggests that when companies in industrial product pay more attention, are actively involved and promote their CSR activities, it assists in the prosperity and life quality of the community.

In summary the findings of the hypotheses testing reveal that CSRD and dimensions of CSRD appear to significantly related to CFP. This indicates that the involvement of companies in CSR practices possibly match with stakeholder theory claim. These results show that actively in some level CSR initiative could enhance the financial performance of companies. The objectives of companies namely profit maximization could be achieved when managers of those companies are actively involved in CSR practices because it is matched with demands of the relevant stakeholders. In terms of satisfying CSR demand from various stakeholders, such as employees, communities, and environment as well as shares ownership of those companies, they are achieved.

Based on the results of the hypotheses testing between CSRD and dimensions of CSRD on IO, it is found that they are also significant. These signify that the investment decisions of

institutional investors can also be explained by using stakeholder theory. It is also found that the response from institutional investors are positive when the companies have commitment with their CSR practices, therefore, Malaysian companies, should discover their social activities which they have practised, and they should inform to their stakeholders, particularly the institutional investors.To the investors, information about CSR activates by the company is a part of information that will be used by the institutional investors in making investment decisions. Most institutional investors, especially SRI and other ethical investors select companies which have a high commitment to the social activities of the company as an investment option.

The higher involvement of the companies in their some dimensions of CSR practices and disclosures are significantly positive related to both CFP and IO. Getting better links with primary stakeholders such as workforces, customers, communities and environmental, could lead to improved financial performance in that this could help companies to extend their intangible and valuable assets which could be able to enhance the competitive advantage of the companies (Hillman and Kim, 2001). The improvement of employees' ability of companies and how they are employed and retained as well as continuously improving the quality of products through research and development are also sources of competitive advantage to attract institutional investors.

According to the above discussion, the involvement of CSR practices in the Malaysian PLCs can be explained by stakeholder theory. These results can be used as an important information to the companies which have to be more active in involving themselves in CSR activities and also discloses them. This is because all these practices could improve

their financial performance and attract more institutional investors. The government agencies also support through the regulations and laws to impose the Malaysian PLCs to be active in CSR practices (Bursa Malaysia, 2007). There are many capital markets outside Malaysia which already have social performance index or rating such as; Kinder, Lydenberg, Domini (KLD) Index, Canadian Social Investment Database (CSID) rating, Ethical Investment Research Services (EIRIS) Score, Dow Jones Sustainability Index, Dow Jones Islamic Index, etc. Therefore, it is timely that Securities Commission and Bursa Malaysia also provides social performance rating for the Malaysian PLCs. By using this rating, it is easier to measure the general standard of CSR practices in the Malaysian context. The present researcher believes that the empirical study about this issue could be improved in the future.

6.7. Summary

Longitudinal data analysis over a seven year period reveals that companies' involvement in disclosure of CSR activities is increasing, both in terms of the amount of disclosure and the number of participating companies. Nevertheless, the growing level of involvement and disclosure of CSR activities is still limited with general information and qualitative statements. Thus, the findings suggest that the situation of CSRD in Malaysia is still at an emerging period with respect to disclosure of CSR activities. 'Employee relations' is the highest disclosed dimension in the companies' annual reports compared to other dimensions. The second highest disclosed dimension is product, followed by community involvement and environment. The findings of this study also found that there three industries have the highest level of CSR activity disclosure namely the plantation, consumer products and construction sectors. These industries are commonly related to

environmental damage, and are therefore subject to heavy monitoring by external stakeholders such as NGOs, consumers, governmental bodies and institutional investors.

The findings of this study reveal that there are directional associations between CSRD and its dimensions on CFP. The findings also suggest a positive and significant relationship between CSRD and two of its dimensions namely employee relations and product on IO; whereas the community involvement and environment dimensions is negative significantly related to IO. Lastly, both CSRD and the percentage of shares owned by institutional investors support the hypothesis that is significantly positive related to CFP.

A relationship exists between CSRD and CFP in three of the industries namely finance, industrial products and trading and services. Analyzing the dimensions found variants among the industries and most of the four dimensions namely employee relations, community involvement, product and environment; which are statistically significant related to CFP in all industries comprising of finance, industrial products, property and trading and services. The relationship between CSRD and its dimensions on IO also show mixed findings. CSRD has significantly positive related to IO for three industries namely industrial product, property and trading and services; whereas there is a significantly negative relation for the finance industry. Finally, most of the CSRD dimensions are statistically significant in all four industries.

CHAPTER SEVEN
CONCLUSION

7.1. Introduction

This chapter comprises five sections. Section 7.2 explains the key research findings with the sub-sections are based on the research objectives. Section 7.3 explains contribution to knowledge, followed by implications for practice in Section 7.4. The limitations of the study and recommendations for future research are discussed in Section 7.5, with the final section providing a summary of the chapter.

7.2. Key Research Findings

This section explicates the key findings of the study based on the research objectives as stated in the first chapter. Detailed discussions on the content analysis of CSRD and the findings of the hypotheses were explained in chapters five and six respectively. The research method involves a longitudinal study of the Malaysian PLCs comprising 200 companies sampled from 474 companies listed on the main-board of Bursa Malaysia during the period of 1999 to 2005. This thesis utilized longitudinal data of seven years in order to examine any putative relations through time.

Previous empirical studies about the impact of CSR on CFP and IO indicate that most researchers use the index or rating for a particular measure of a company's involvement in CSR activities (Table 3.1 in Chapter two). Empirical studies on this issue are still limited. Furthermore, there is no institution in Malaysia that provides guidelines on how companies ought to measure the degree of involvement in CSR practices. Some researchers stressed

that the CSRD is another way to know with certainty the involvement of a company in CSR practices (Murray et al., 2006; Anderson and Frankle, 1980; Bowman and Haire, 1975). Thus in this study, CSRD is taken as the instrument and proxy for the measurement of CSR practices by the Malaysian PLCs.

The researcher has listed four specific research objectives of this thesis as follows: 1) To establish the CSRD status of the Malaysian PLCs; 2) To examine whether there is any relationship between CSRD and its dimensions on CFP of the Malaysian PLCs; 3) To examine whether there is any relationship between CSRD and its dimensions on IO of the Malaysian PLCs; 4) To examine whether there is any relationship of both CSRD and IO on CFP of the Malaysian PLCs.

This chapter presents a detailed conclusion of the findings obtained, along with a comprehensive discussion on the research objectives.

a. The first objective of this study is to establish the CSRD status of the Malaysian PLCs. The longitudinal data analysis for the period of 1999 to 2005 reveals that the involvement and disclosures of CSR activities are improving gradually. This means that the number of companies disclosing their CSR activities has improved during the seven years of analysis, with an average growth of CSRD information at approximately 10.8 percent yearly. The highest disclosure theme is employee relations, followed by community involvement, product, and finally the environment dimension. Most PLCs in Malaysia disclose their CSR activities in general statement terms where information content is limited. However the number

of companies that participated during the seven year period of analysis did not improve significantly in accordance with stakeholders' expectations (Bursa Malaysia, 2007).

The current results reveal that only 32 out of 200 companies consistently disclosed their CSR activities in annual reports over the seven-year study period. This result is consistent with a prior study by Gelb and Strawser (2001), which found that the companies involved in socially responsible practices tend to disclose intensively compared to the companies who are less concerned with social objectives. These companies show better relations with their investors through enhancing their social disclosure practices.

Results of descriptive statistics based on industrial sector analysis reveal that several industries are found to have a commonly high tendency to make voluntary disclosures compared to other industries. The three industries with the highest mean scores for CSRD are plantations, consumer products and construction. Industries with a high environmental impact are distinguished by their connection with highly discernible environmental damage such as water and air pollution, the risk of oil spills and global warming. For example, the plantation and construction industries which have a significant impact on the environment, disclose more environmental information. This is in contrast with other industries especially those in the service sectors such as finance and trading and services, which provide significantly less disclosure on environmental related subjects as a result of less discernible environmental impact.

b. The second objective of this study is to examine whether there are any relationships between CSRD and its dimensions on CFP. In this context, CSRD is used as a tool and proxy to demonstrate company practices in CSR. By utilizing CSRD as representing the involvement of companies in CSR practices, it was found that CSRD is positive and significantly related to CFP in the Malaysian PLCs. This study also found that by using CSRD as a proxy for the measurement of CSR in the Malaysian PLCs, it supports the findings of previous studies in developed markets that the relationship between CSR and CFP is positive and significant (Simpson and Kohers, 2002; Orlitzky, 2001; Ruf et al., 2001; Roman et al., 1999; Balabanis et al., 1998; Waddock and Graves, 1997).

All four dimensions of CSRD namely employee relations, community involvement, product and environmental are positive and significantly related to CFP. This indicates that companies strategically invest in CSR activities to achieve higher levels of financial performance. Utilizing financial resources for CSR activities is also strategically linked to improving public image and enhancing relations with external stakeholders.

There is a general acceptance that the companies' socially responsible practices are related to financial performance. According to Waddock and Graves (1997), socially responsible practices can enhance a company's positive reputation among its customers. This allows companies a chance to employ skilled staff as well as extend business partnerships. Furthermore, socially responsible practices aid in

lowering negative social incident risks which could damage a company's reputation and result in high cost of information and legal action (Tsoutsoura, 2004). Results of this study reveal that CSRD is positive and significantly associated with CFP. This confirms the view that socially responsible practices are related to a series of bottom-line benefits namely social and economic benefit, when companies engage and disclose their CSR activities.

c. The third objective of this study is to examine whether there are any relationships between CSRD and its dimensions and IO. The information of companies' involvement in CSR activities is represented by CSRD in annual reports. The findings of the longitudinal data analysis show that CSRD is positive and significantly related to IO. This result reveals that institutional investors that select portfolio investments tend to consider the social performance of companies. This finding is consistent with the findings of prior studies that indicate investors consider social disclosure in their investment decision (Milne and Chan, 1999). Their choices avoid or exclude those companies with poor social performance. Numerous investors believe that the more the companies are socially responsible, the safer their investment (Mahoney and Roberts, 2007). Several types of ethical investors such as *Syariah*-Compliant Funds, Unit Trusts and Investment Trusts are growing significantly and consequently sustain their shares in companies that are seen as adopting socially responsible practices. The findings of this study support prior research findings that CSR is positive and significantly related to IO (Cox et al., 2004; Johnson and Greening, 1999; and Graves and Waddock, 1994).

The results of this study however show that among the CSR dimensions, institutional investors are less concerned with companies engaging in community contribution practices and those related to the environmental exposure in which the company operates. The lack of concern could be due to the assumption that neither activity has direct impact on the investment portfolios of these institutional investors. Nevertheless, institutional investors are not totally opposed to companies that are involved in social activities (Milne and Chan, 1999; Teoh and Shiu, 1990). Hence, companies can improve their advantage in social performance through proactive promotion and the recruitment of managers who are concerned with environmental protection (Simerly, 1995). However, institutional investors respond positively to the employee relations and product dimensions. This indicates that institutional investors appreciate fair managers who assist in attracting and maintaining the best workforce, and are concerned with product quality and safety.

d. The fourth objective of this study is to examine whether there are any relationships between CSRD and IO on CFP. It was found that CSRD and IO variables are significant and positively related to CFP. The results suggest that institutional investors may benefit more from companies' awareness of CSR activities, as the investors are possibly allowed to challenge management without exhausting their resources. This is important when institutional investors are under pressure to promote CSR activities as they have placed their money in companies that care about CSR activities (Neubaum and Zahra, 2006).

When taking CSRD as a tool to establish CSR, it is found that the hypotheses testing of the relationship of both CSRD and IO on CFP is positive and significant. This indicates that companies achieve a high level of financial performance through their involvement in CSR activities by maintaining the shares held by institutional investors who are concerned with socially responsible activities.

According to industrial categorization, the study finds different results among CSRD, CFP and IO. CSRD appears to have a positive significant relationship with CFP for companies in the finance, industrial products, and trading and service industries; whereas there was no relationship between CSRD and CFP in the property industry. Furthermore, CSRD reveals a positive impact on IO for companies in the industrial product and property industries, whereas a negative impact was reported on IO for companies in the finance industry. However there was no relationship found between CSRD and IO with the trading and service industry. All of the industries are concerned with the employee relations category as it is disclosed more intensively than other CSRD categories.

There are some industries that do not properly disclose their environment aspect to the public. For example the industrial product and property industries which have a potentially broad intensity of environmental damage, show little priority for disclosure on environmental issues in their annual reports compared to other dimensions of CSRD. Meanwhile in the finance and trading and service industries, it could be the common perception that their daily business activities have a low environmental impact. These industries are more focused on disclosures

concerning employee relations and community involvement as a priority over the environmental dimension.

7.3. Contribution to Knowledge

This observation is an effort to provide information to all the various stakeholders as to whether CSRD, as a proxy to ascertain CSR activities disclosed in annual reports of PLCs in Malaysia, have any relationships with CFP as well as IO. It is noted that CSR activities can be compensated with better workers, improved consumer satisfaction, enhanced company reputation and easier access to financial markets. Involvement in CSR activities is also likely to prevent injurious legislation (Berman et al., 1999). Prior studies claim that CSR activities can improve CFP and attract more investors as well as maintain their business activities (Mahoney and Roberts, 2007; Marom, 2006; Cox et al., 2004; Tsoutsoura, 2004; Simpson and Kohers, 2002; Waddock and Graves, 1997).

There are some major contributions of this study in relation to CSRD literature. First, this is an effort to examine the relationship between CSRD and CFP in PLCs in Malaysia. Numerous studies about CSRD in the Malaysian context have been conducted (e.g. Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Rashid and Ibrahim, 2002; Williams and Pei, 1999; Kin, 1990). However, the studies which examine the association between CSR and CFP in the Malaysian PLCs context are scant. Therefore, by using CSRD as a proxy for the measurement of CSR activities, this study provides an empirical study of the relationship between CSRD and CFP.

Studies on the relationship between CSR and CFP as well as IO in the Malaysian context are rare. This could be a factor of why the awareness of CSR involvement and disclosure in Malaysia lags behind developed markets. Hence, the contribution of this study investigates the relationship between CSRD and CFP for PLCs in the Malaysian context. In addition, the hypotheses testing results support the results of prior research conducted in developed markets, which found CSR to be significant and positively related to CFP (e.g. Moore and Robson, 2002; Simpson and Kohers, 2002; Ortitzky, 2001; Roman et al., 1999; Preston and O'Bannon, 1997; Roberts, 1992; McGuire et al., 1988; Cochran and Wood, 1984; Shane and Spicer, 1983).

Second, the empirical study of the relationship between CSRD and IO of the Malaysian PLCs also supplements the literature. Currently the investment from institutional ownership involves huge amounts of company equity and generally, institutional shareholders cannot easily move quickly in and out of holding amounts of equity without slightly affecting share prices (Pound, 1992). Institutional investors are very likely to hold their equity for long-term (Mahoney and Roberts, 2007; Cox et al., 2004). Consequently, institutional investors are not only interested in the financial performance, they are also concerned about the long-run benefits of companies, such as maintaining product quality and safety, participating in environmental protection, and contributing to the communities in which the company operates and the workers are employed (Turban and Greening, 1997). Hence, this study also provides an examination of the relationship between CSRD and IO for PLCs in Malaysia. This study reveals that CSRD is positive and significantly related to IO, and this indicates that enhancing social performance will improve the amount of equity owned by institutional investors. Results of this study support previous studies

(Mahoney and Roberts, 2007; Cox et al., 2004; Johnson and Greening, 1999; Turban and Greening, 1997; and Graves and Waddock, 1994), which found a positive relationship between CSR and IO.

Third, the contribution of this study provides an empirical research of the relationship between CSRD and IO on CFP of the Malaysian PLCs. This empirical testing has some arguments presented as follows: Previous studies found that CSR and CFP correlate in the long-term and that enhancing social performance better rewarded competitiveness levels of companies (Cox et al., 2004; Waddock and Graves, 1997; Cochran and Wood, 1984); lessened operating expenses (Ruf et al., 2001) and improved workforce quality and motivation (Turban and Greening, 1997). In contrast, the financial risk of companies will increase when social performance levels are low (Turban and Greening, 1997). Other arguments state that excellent social performance will produce an excellent financial performance because of the efficient utilization of resources and result in a high level of employee commitment (Scholtens, 2008). These arguments suggest that long-term investors are most likely to select companies with have superior social performance as a consequence of impact on the risk and return in the long-term period (Cox et al., 2004; Graves and Waddock, 1994). Institutional investors also seek risk-aversion investment (Mahoney and Roberts, 2007). Hence, they are interested in investing in companies that are seen as more socially responsible. Based on these arguments, it appears that this aspect provides an examination of the relationship between both CSRD and IO on CFP for PLCs in Malaysia. This study proves that both CSRD and IO variables have a positive and significant relation on CFP for PLCs in Malaysia.

7.4. Implications

The empirical study which revealed positive results of the relationships between CSRD and CFP as well as IO, indicate that this study has several implications for companies, investors and policy-makers in Malaysia.

First, this thesis reveals that CSRD can be used as a strategic approach to enhance the reputation of PLCs in Malaysia as well as being profitable for the company. This means that managers substantially disclose their various CSR activities because there is no negative response from stakeholders when companies spend their resources on CSR activities. It would then seem that similar investments may be useful, especially when companies intend to improve their relations with their stakeholders. Therefore CSRD is an important strategy in providing assurance of a company's reputation. This shows a positive and significant relationship between CSRD and CFP as well as IO for PLCs in Malaysia and therefore, the Malaysian PLCs should be more intensely engaged in CSR activities and disclose of them consistently in annual reports.

The second implication of this study is the possibility for institutional investors to design their investment criteria. For example, an investor can plan long-term benefits by placing and holding shares over a longer period of time in companies that are involved in socially responsible activities. Numerous companies feel pleased to enhance their CSR activities as part of an effort to build public trust. Good CSR practices increasingly integrate superior financial benefits for Malaysian institutional investors. This is because institutional investors are risk-averse in their investment decisions, resulting in a positive and significant relationship between CSRD and CFP, as well as between CSRD and IO. This

suggests that institutional investors may feel more secure if they retain their portfolio investments in the companies that are actively engaged in CSR practices and make disclosure thereof.

Third, the findings also suggest that policy-makers especially the Security Commission should consider the need to establish CSRD requirements that are beneficial to the stakeholders. The Security Commission may consider providing criteria to measure social performance as well as establishing a social performance ranking for PLCs in Malaysia. This ranking could be used as a benchmark target for PLCs in Malaysia and simultaneously provide a general standard to evaluate other companies engaging in CSR activities. The introduction of such criteria might not only be of assistance to company managers who find it difficult to measure the success of their own CSR policies, it can also be used to attract investors especially ethical investments that have grown rapidly in recent times. Future empirical studies concerning the relationship between CSRD and CFP as well as IO are expected to increase rapidly if a general evaluation standard for CSR activities by PLCs in Malaysia is made available.

The security commission should promote and enhance the involvement of companies in CSR programmes. With proper training and/or education programmes for company directors, a higher level of corporate governance practices can be ensured and continued. The increasing level of awareness is crucial in developing responsibility towards a company's shareholders such as owners of a company as well as other stakeholders such as workers, communities, consumers and the environment in which the PLCs are operating. This can be achieved via training and or education programmes conducted by Bursa

Malaysia for all PLCs directors; to raise awareness levels and ultimately a wholesome sense of social responsibility.

Efforts to extend social concern by promoting and enhancing accountability and social responsibility have been supported by the Prime Minister of Malaysia's agenda as necessary for the development of a national integrity plan. Together this will contribute to the internationalization of ethics and integrity at both personal and company levels, ultimately helping to foster an understanding that Malaysian investments offer good value with its own unique characteristics called *work ethos of eastern ethnics* with features such as diligence, mutual cooperation and respect to religious beliefs.

7.5. Limitations and Recommendations for Future Research

The above findings are however subject to a few limitations. Certain limitations of the study and recommendations on how to overcome them are explored in this section.

The study utilizes the content analysis method which according to prior studies, is subject to human error as the thesis uses judgment to explore what represents CSRD (Abdul Hamid, 2004; Thompson and Zakaria, 2004; Mathews, 1997; Hackston and Milne, 1996; Tilt, 1994). The thesis solely focuses on the disclosure of companies' annual reports, even though it is known that companies utilize other mass communication mechanisms. Hence, future research may have to consider disclosures of CSR activities exposed by other media such as companies' stand-alone reporting, in-house magazines, newspapers, and web-sites.

The sample is obtained from the 200 highest market capitalisations of companies listed on the main-board of Bursa Malaysia. The inclusion of all PLCs on Bursa Malaysia in the future could potentially improve results, as by involving different sample sizes it would be more effective to make conclusions. Collecting primary data through interviews is also highly recommended as it will be useful in determining the precise motives and perceptions of managers in disclosing their CSR activities.

The diversification of IO in future studies can be considered. There are two categories of institutional investors, namely short-term and long-term ones. Both have a different orientation towards companies' involvement in CSR activities (Cox et al., 2004). These different categories of institutional investors are likely to demonstrate different investment behaviours and pursue varied objectives that are subject to various conditions and constraints. Hence, it may help companies to attract appropriate institutional investors with their respective orientation of investment.

There are studies that observe the relationship between corporate social and financial performance, and are extended to non-linear model analysis in developed markets. This has not been observed in this study. This can be adapted to the Malaysian context and other emerging markets for future research. This will help in determining if similar relationships hold when the approach is applied to other emerging markets. Lastly, on the issue of whether the relationship of CSR and CFP is such that CSR is the one that could lead to CFP or otherwise. This study suggests that for future research, causality testing between CSR on CFP and IO in the Malaysian PLCs are utilized (for example, see Makni et al., 2009 and Nelling and Webb, 2009).

7.6. Summary

CSRD studies have been conducted frequently in the Malaysian context. Prior studies concluded that the awareness level of managers towards CSR is high (Haniffa and Cooke, 2005; Abdul Hamid, 2004; Thompson and Zakaria, 2004; Nik Ahmad et al., 2003; Rashid and Ibrahim, 2002; Williams and Pei, 1999; Kin, 1990). However, disclosing their CSR activities is not practiced (Nik Ahmad and Abdul Rahim, 2003; Williams and Pei, 1999). Even though the number of CSRD studies is high, there are very few empirical studies on the relationship between CSRD and CFP as well as IO in the Malaysian context.

The objective of this thesis is to explore the extent of CSRD and investigate the relationships between CSRD on CFP and IO in the Malaysian PLCs. The sample size used in this study consists of 200 companies, which was taken from 474 companies listed on the main-board of Bursa Malaysia during the period of 1999 to 2005. These large companies listed on Bursa Malaysia constitute approximately 70 percent of the total market capitalization.

Through longitudinal data analysis, statistical testing was carried out. The estimation results confirmed that there are significant positive relationships between CSRD and CFP as well as IO. The result of the hypotheses testing based on the CSRD dimensions also found that all four dimensions are statistically significant and positively related to CFP. Furthermore two CSRD dimensions namely employee relation and product, are statistically significant and positively related to IO; while the two other dimensions namely community involvement and environment are statistically significant but negatively related to IO.

Lastly, both CSRD and IO also support the hypothesis that they are positive and significantly related to CFP for PLCs in Malaysia.

The results reveal that being involved in CSRD will enhance CFP. Companies that disclose their CSR activities in annual reports also raise brand image and company reputation, increase pull capacity, maintain high quality employees and ultimately distinguish themselves apart from their rivals. A high commitment to CSRD can supply a useful approach to invite institutional investors, particularly from overseas. This is because institutional investors are interested in integrating both better financial profits as well as better CSR practices in their portfolio investment criteria. Being involved in CSR activities in the eyes of stakeholders will be translated into enhanced satisfaction of the various stakeholders, especially as they become more concerned with social issues.

This study provides a platform for local institutional investors to design their investment criteria. The issue of whether or not an investor makes long-term benefits by holding on to their shares over a long period of time depends on the company's involvement in socially responsible activities.

Finally a general confirmation can be made that this study has proven a positive and significant relationship between CSRD and CFP and the IO. This confirms that increased active involvement and promotion of CSR activities brings together the interests of stakeholders, therefore having a positive impact on financial performance. Disclosure of CSR activities can also be used as leverage to attract institutional investors to actively invest in the Malaysian PLCs that have solid platforms for socially responsible practices.

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APPENDIX A:

LIST OF COMPANY NAME AND CSRD SCORE VALUE (1999 – 2005)

Code	Company Name	Industry	EMPL	COM	PROD	ENV	CSR
Year 1999							
ACPI	ACP Industries Berhad	ip	2	0	0	0	2
AFFIN	Affin Holdings Berhad	f	2	2	0	0	4
AIC	AIC Corporation Berhad	tech	3	0	2	0	5
AJI	Ajinamoto Malaysia Berhad	cp	1.5	0	0	0	1.5
ALCOM	Aluminium Company of Malaysia Brhad	ip	2	2.5	2	2	8.5
AM	A & M Realty Berhad	pr	0	0	0	0	0
AMMB	AMMB Holdings Berhad	f	2.5	2.67	0	0	5.17
AMWAY	Amway (Malaysia) Holding Berhad	ts	1	0	2	0	3
ANNJOO	Ann Joo Resources Berhad	ip	3	0	0	0	3
APOLLO	Apollo Food Holdings berhad	cp	0	0	0	0	0
ASIAFILE	Asia File Corporation Berhad	cp	3	0	0	0	3
ASIATIC	Asiatic Development Berhad	pl	0	2	0	0	2
AVENUE	Avenue Asset Berhad	f	0	0	0	0	0
BAT	British American Tobacco (M) Berhad	cp	2	2	0	0	4
BCB	BCB Berhad	pr	0	0	0	0	0
BJCAP	Berjaya Capital Berhad	f	3	0	0	0	3
BJGROUP	Berjaya Group Berhad	ts	3	0	0	0	3
BJLAND	Berjaya Land Berhad	ts	2.5	2.67	0	2	7.17
BJTTO	Berja Sports Toto Berhad	ts	0	3	0	0	3
BKAWN	Batu Kawan Berhad	pl	0	0	0	0	0
BOLTON	Bolton Berhad	pr	3	0	0	0	3
BRAYA	Bandaraya Developments Berhad	pr	0	0	0	2	2
BSTEAD	Boustead Holdings Berhad	ts	0	0	0	0	0
CAMERLIN	Camerlin Group	ip	3	0	0	0	3
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	2	2	0	3	7
CHHB	Country Heights Holding Berhad	pr	2	0	0	0	2
CHINTEK	Chin Teck Plations Berhad	pl	1	0	0	0	1
CIMA	Cement Industries of Malaysia Berhad	ip	2	0	2	2	6
CMSB	Cahaya Mata Sarawak Berhad	f	2.5	2.67	3	0	8.17
COMMER	Commerce	f	n/a	n/a	n/a	n/a	n/a
COSWAY	Cosway Corporation Berhad	cp	3	0	0	0	3
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	0	0	0	0	0
DAIMAN	Daiman Developments Berhad	pr	0	0	0	0	0
DIALOG	Dialog Group Berhad	ts	2.33	2.67	0	0	5
DIJACOR	Dijaya Corporation Brhad	pr	0	3	0	0	3
DLADY	Dutch Lady Milk Industries Berhad	cp	2	0	0	0	2
DLLOYD	Delloyd Ventures Berhad	ip	3	0	0	0	3
DNP	DNP Holdings Berhad	cp	2	0	0	0	2
DRHBCOM	DRB-Hicom Berhad	ip	0	2	3	0	5
EKOVEST	Ekovest Berhad	cn	0	0	0	0	0
EKRAN	Ekran Berhad	pr	3	0	0	0	3
EKSONS	Eksons Corporation Berhad	ip	0	0	0	0	0
ENG	Eng Teknologi Holdings Berhad	tech	3	0	0	0	3
EO	Eastern Oriental Berhad	pr	0	0	0	0	0

EON	Edaran Otomobil Nasional Berhad	ts	2.5	3	2	2.5	10
EPIC	Eastern Pasific Industrial Co Berhad	ts	0	0	0	0	0
ESSO	Esso Malaysia Berhad	ip	0	0	0	0	0
FACBRES	Facb Resorts Berhad	pr	2	0	0	0	2
FAREAST	Far East Holdings Berhad	pl	1	0	0	0	1
FFM	FFM Berhad	cp	0	0	0	0	0
FN	Fraser & Neave Holdings Berhad	cp	2	2	2.5	0	6.5
FORMIS	Formosa Prosonic Industries Berhad	ts	0	0	0	0	0
FPI	Formis Malaysia Berhad	cp	1	0	0	0	1
GAMUDA	Gamuda Berhad	cn	3	3	0	2	8
GCORP	General Corporation Berhad	cn	0	0	0	0	0
GHOPE	Golden Hope Plantitions Berhad	pl	2.33	2.25	2.5	2.5	9.58
GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	0	0	0	0	0
GPERAK	Gula Perak Berhad	htl	2	0	0	0	2
GTING	Genting Berhad	ts	2	2.67	0	0	4.67
GUH	Grand United Holding Berhad	ip	2	0	0	0	2
GUINES	Guiness Anchor Berhad	cp	0	2	0	0	2
HALIM	HalimMazmin Berhad	ts	0	0	0	0	0
HAPSNG	Hang Seng Consolidated Berhad	ts	2	0	0	0	2
HDBS	Hwang - DBS (Malaysia) Berhad	f	1	0	0	0	1
HL	Highland & Lowland Berhad	pl	2	2	0	2	6
HLBANK	Hong Leong bank Berhad	f	0	2	0	0	2
HLIND	Hong Leong Industries Berhad	cp	2	0	0	0	2
HSL	Hock Seen Lee Berhad	cn	2	0	0	3	5
HUMEIND	Hume Industries (Malaysia) Berhad	ip	1	0	0	0	1
HUOJOO	Hua Joo Seng Interprise Berhad	cp	1	0	0	0	1
HWGB	Ho Wa Genting Berhad	ip	0	0	0	0	0
ICP	Industrial Concrete Products Berhad	ip	3	0	0	0	3
IGB	IGB Berhad	pr	2	0	0	0	2
IJM	IJM Corporation Berhad	cn	0	0	0	0	0
INSAS	Insas Berhad	f	1	0	0	0	1
INTI	Inti Universal Holdings Berhad	ts	0	2	0	0	2
IOICORP	IOI Corporation Berhad	pl	3	2	0	0	5
IOIPROP	IOI Properties Berhad	pr	0	0	0	0	0
IP	Island & Peninsular Berhad	pr	3	0	0	0	3
JERNEH	Jerneh Asia Berhad	f	3	0	0	0	3
JOHPORT	Johor Port Berhad	ts	2	0	0	0	2
JTIASA	Jaya Tiasa Holdings Berhad	ip	0	0	0	0	0
JTINTER	JT International Berhad	cp	0	0	0	0	0
JUSCO	Jaya Jusco Stores Berhad	ts	0	0	0	0	0
KEMAS	Kumpulan Emas Berhad	ts	3	0	0	0	3
KENANGA	K & N Kenanga Holdings Berhad	f	1	0	0	0	1
KFC	KFC Holdings (Malaysia) Berhad	ts	2	2.5	3	0	7.5
KFIMA	Kumpulan FIMA Berhad	f	0	0	0	0	0
KIANJOO	Kian Joo Can Factory Berhad	ip	2	0	0	0	2
KILHALL	Killinghall Malaysia Berhad	f	1	0	0	0	1
KIMHIN	Kim Hin Industry Berhad	ip	0	0	0	0	0
KLK	Kuala Lumpur Kepong Berhad	pl	2	0	3	0	5
KLUANG	Kluan Rubber Company (Malaya) Brhad	pl	0	0	0	0	0
KONSORT	Konsortium Logistik Berhad	ts	2	0	0	0	2
KPJ	KPJ Healthcare Berhad	ts	2	2.67	2.67	0	7.34

KSENG	Keck Seng (Malaysia) Berhad	ip	2	0	0	0	2
KULIM	Kulim (Malaysia) Berhad	pl	1.5	2	2	0	5.5
KWANTAS	Kwantas Corporation Berhad	pl	0	2	0	0	2
LANDMRK	Lanmarks Berhad	htl	3	0	0	0	3
LEADER	Leader Universal Holdings Berhad	ip	0	0	2.5	0	2.5
LINGUI	Lingui Development Berhad	ip	0	0	0	0	0
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	3	2	0	0	5
LPF	Ladang Perbadanan FIMA Berhad	pl	0	0	0	0	0
LPI	LPI Holdings Berhad	f	3	0	0	0	3
MAA	MAA Holdings Berhad	f	0	2	0	0	2
MAGNUM	Magnum Corporation Berhad	ts	2	3	0	0	5
MALAKOF	Malakoff Berhad	ts	2	2.33	2	0	6.33
MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	2	2.5	2	0	6.5
MAS	Malaysian Airline System Berhad	ts	0	2	0	0	2
MAYBANK	Malayan Bank Berhad	f	2	3	0	0	5
MBMR	MBM Resources Berhad	ts	1	2	0	0	3
METACOR	Metacorp berhad	ts	2	0	0	0	2
METROK	Metro Kajang Holdings Berhad	pr	3	0	0	0	3
MFCB	Mega First Corporation Berhad	ts	0	0	0	0	0
MFLOUR	Malayan Flours Mills Berhad	cp	1	0	0	0	1
MIDF	Malaysian Industrial Development Bhd	f	1	2	0	0	3
MKLAND	MK Land Berhad	pr	0	0	0	0	0
MNI	MNI Holdings Berhad	f	0	2	0	0	2
MNRB	Malaysian National Reinsurance Berhad	f	2	0	2	0	4
MOX	Malaysian Oxigen Berhad	ip	3	0	0	0	3
MPI	Malaysian Pacific Industries Berhad	tech	3	0	0	0	3
MRCB	Malaysian Resources Corporation Bhd	ts	3	0	0	0	3
MSC	Malaysia Smelting Corporate Berhad	ip	0	0	0	0	0
MTD	MTD Capital Berhad	cn	0	2	0	0	2
MUDA	Muda Holdings Berhad	ip	0	0	0	0	0
MUIPROP	MUI Properties Berhad	pr	0	0	0	0	0
MULPHA	Mulpha International Berhad	ts	0	0	0	0	0
NALURI	Naluri Berhad	ts	2	0	0	0	2
NANYANG	Nanyang Press Holdings Berhad	ts	0	2	0	0	2
NCB	NCB Holding Berhad	ts	2	0	0	0	2
NEGARA	Negara Properties (M) Berhad	pr	2	0	0	0	2
NESTLE	Nestle Malaysia Berhad	cp	0	2	0	0	2
NSOP	Negri Sembilan Oil Palms Berhad	pl	3	0	0	0	3
ORIENT	Oriental Holdings Berhad	cp	0	0	0	0	0
OSK	OSK Holdings Berhad	f	3	0	0	0	3
OYL	OYL Industries Berhad	cp	3	0	2	0	5
PACMAS	PacificMas Berhad	f	2	0	0	0	2
PALMC	Palmco Holding Berhad	ip	n/a	n/a	n/a	n/a	n/a
PANTAI	Pantai Holdings Berhad	ts	2	0	0	0	2
PARAMOUNT	Paramount Corporation Berhad	pr	2	0	0	0	2
PBBANK	Public Bank Berhad	f	2	2.67	2	2	8.67
PELANGI	Pelangi Berhad	pr	0	0	0	0	0
PETDAG	Petronas Dagangan Berhad	ts	0	0	0	0	0
PETGAS	Petronas Gas Berhad	ip	2	2	0	0	4
PGARDEN	Petaling Garden Berhad	pr	0	0	0	0	0

PJDEV	PJ Development Holdings Berhad	cn	1	0	0	0	1
PMCORP	Pan Malaysia Corporation Berhad	ip	1	0	0	0	1
PMIND	Pan Malaysia Industries Berhad	ts	0	0	0	0	0
PO	Pasific & Orient Berhad	f	2	0	0	0	2
PPB	PPB Group Berhad	cp	0	1	0	0	1
PROTON	Perusahaan Otomobil Nasional Berhad	cp	0	0	0	0	0
PSCI	PSC Industries Berhad	ip	0	0	0	0	0
PTGTIN	Petling Tin Berhad	pr	0	0	0	0	0
RESORT	Resorts World Berhad	ts	2.33	3	2.5	0	7.83
RHB	RHB Capital Berhad	f	0	0	0	0	0
ROADBLD	Road Builder Holdings (M) Berhad	cn	3	0	0	0	3
RVIEW	Reverview Rubber Estates Berhad	pl	0	0	0	0	0
SAB	Southern Acids(M) Berhad	ip	0	0	2	0	2
SAPURA	Sapura Telecommunications Berhad	tech	0	0	0	0	0
SBAGAN	Sungai Bagan Rubber Co (M) Berhad	pl	0	0	0	0	0
SBANK	Southtern Bank Berhad	f	0	0	2	0	2
SDRED	Selangor Dredging Berhad	pr	0	0	0	0	0
SETIA	SP Setia Berhad	pr	2	2	0	0	4
SHANG	Shangrila Hotel (M) Berhad	htl	0	2	0	0	2
SHELL	Shell Refening Company (M) Berhad	ip	2.5	2.5	2	2	9
SHL	SHL Consolidated Berhad	pr	3	0	0	0	3
SIME	Sime Darby Berhad	ts	2	2	0	0	4
SIMEPTY	Sime UEP Properties Berhad	pr	0	2	0	3	5
SOP	Sarawak Oil Palms Berhad	pl	2	0	0	0	2
SPB	Selangor Properties Berhad	pr	0	0	0	0	0
SRAWAK	Sarawak Enterprise Corporation Behad	ts	0	0	0	0	0
SSTEEL	Southern Steel Berhad	ip	0	0	0	0	0
STAR	Star Publications Malaysia Berhad	ts	2.33	2.6	2.5	0	7.43
SUNCITY	Sunway City Berhad	pr	0	0	0	0	0
SUNRISE	Sunrise Berhad	pr	2	2	0	0	4
TA	Ta Interprise Berhad	f	2	0	0	0	2
TAANN	Ta Ann Holdings Behad	ip	0	2	0	0	2
TALAM	Talam Corporation Berhad	pr	2	0	0	0	2
TANJONG	Tanjong Public Limited Company	ts	0	0	0	0	0
TASEK	Tasek Corporation Berhad	ip	0	0	0	0	0
TCHONG	Tan Chong Motor Holdings Berhad	cp	0	0	0	0	0
TELKOM	Telekom Malaysia Berhad	ts	2	3	2	0	7
TENAGA	Tenaga Nasional Berhad	ts	0	2	0	0	2
TEXCHEM	Texchem resources Berhad	ts	0	0	0	0	0
THGROUP	TH Group Berhad	pl	2	1.5	0	0	3.5
TIME	Time Engineering Berhad	ts	0	1.5	0	0	1.5
TRACTOR	Tractors Malaysia Holdings Berhad	ip	0	0	0	0	0
TSH	TSH Resources Berhad	ip	3	0	0	0	3
TWS	TWS Berhad	cp	2	0	0	3	5
UAC	UAC Berhad	ip	0	0	0	0	0
UMLAND	United Malayan Land Berhad	pr	2	0	0	0	2
UMW	UMW Holdings Berhad	cp	2	2.75	0	0	4.75
UTDPLT	United Plations Berhad	pl	2	2	3	0	7
UWOOD	U-wood Holdings Berhad	pr	0	0	0	0	0
WCT	WCT Engineering Berhad	cn	0	0	0	0	0
WLDWIDE	Worldwidw Holdings Berhad	pr	1	0	0	0	1

WTK	WTK Holdings Berhad	ip	2	0	0	0	2
YHS	Yeo Hiap Seng Malaysia Berhad	cp	2	0	0	0	2
YTL	YTL Corporation Berhad	cn	0	2	0	0	2
YTLCMT	YTL Cement Berhad	ip	2	0	0	0	2
Year 2000							
ACPI	ACP Industries Berhad	ip	2.5	0	0	0	2.5
AFFIN	Affin Holdings Berhad	f	1	0	1	0	2
AIC	AIC Corporation Berhad	tech	1.5	0	2	0	3.5
AJI	Ajinamoto Malaysia Berhad	cp	1	0	1.5	0	2.5
ALCOM	Aluminium Company of Malaysia Bhd	ip	1.8	0	2	1	4.8
AM	A & M Realty Berhad	pr	1	0	0	0	1
AMMB	AMMB Holdings Berhad	f	2	2.33	2	3	9.33
AMWAY	Amway (Malaysia) Holding Berhad	ts	2	2	0	0	4
ANNJOO	Ann Joo Resources Berhad	ip	2	0	0	0	2
APOLLO	Apollo Food Holdings berhad	cp	0	0	0	0	0
ASIAFILE	Asia File Corporation Berhad	cp	2	0	0	0	2
ASIATIC	Asiatic Development Berhad	pl	2.5	0	0	0	2.5
AVENUE	Avenue Asset Berhad	f	0	0	0	0	0
BAT	British American Tobacco (M) Berhad	cp	2	1	2	0	5
BCB	BCB Berhad	pr	2	0	0	0	2
BJCAP	Berjaya Capital Berhad	f	2	0	3	0	5
BJGROUP	Berjaya Group Berhad	ts	0	0	0	0	0
BJLAND	Berjaya Land Berhad	ts	2	0	0	0	2
BJTTO	Berja Sports Toto Berhad	ts	2	2.67	2	0	6.67
BKAWN	Batu Kawan Berhad	pl	0	0	0	0	0
BOLTON	Bolton Berhad	pr	1	0	0	0	1
BRAYA	Bandaraya Developments Berhad	pr	1.5	0	0	0	1.5
BSTEAD	Boustead Holdings Berhad	ts	1	0	0	0	1
CAMERLIN	Camerlin Group	ip	1.5	0	0	0	1.5
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	2.5	0	0	0	2.5
CHHB	Country Heights Holding Berhad	pr	2	2.5	1	0	5.5
CHINTEK	Chin Teck Plations Berhad	pl	0	0	0	0	0
CIMA	Cement Industries of Malaysia Berhad	ip	1.67	0	0	2	3.67
CMSB	Cahaya Mata Sarawak Berhad	f	1.67	2.5	1	0	5.17
COMMER	Commerce	f	2	0	0	0	2
COSWAY	Cosway Corporation Berhad	cp	2	0	0	0	2
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	0	0	0	0	0
DAIMAN	Daiman Developments Berhad	pr	0	0	0	0	0
DIALOG	Dialog Group Berhad	ts	2.25	3	1	0	6.25
DIJACOR	Dijaya Corporation Brhad	pr	2	0	0	0	2
DLADY	Dutch Lady Milk Industries Berhad	cp	1	0	0	0	1
DLLOYD	Delloyd Ventures Berhad	ip	2.5	0	0	0	2.5
DNP	DNP Holdings Berhad	cp	1.67	0	0	0	1.67
DRHBCOM	DRB-Hicom Berhad	ip	0	2.5	3	0	5.5
EKOVEST	Ekovest Berhad	cn	2	0	0	0	2
EKRAN	Ekran Berhad	pr	2	0	0	0	2
EKSONS	Eksons Corporation Berhad	ip	0	0	0	0	0
ENG	Eng Teknologi Holdings Berhad	tech	0	0	0	0	0
EO	Eastern Oriental Berhad	pr	0	0	0	0	0
EON	Edaran Otomobil Nasional Berhad	ts	3	2.5	2	0	7.5
EPIC	Eastern Pasific Industrial Co Bhd	ts	0	0	1	0	1

ESSO	Esso Malaysia Berhad	ip	2	0	0	0	2
FACBRES	Facb Resorts Berhad	pr	2	0	0	1	3
FAREAST	Far East Holdings Berhad	pl	1.33	0	0	0	1.33
FFM	FFM Berhad	cp	2	0	0	0	2
FN	Fraser & Neave Holdings Berhad	cp	2.5	2.6	3	2.5	10.6
FORMIS	Formosa Prosonic Industries Berhad	ts	0	0	0	0	0
FPI	Formis Malaysia Berhad	cp	1	0	0	0	1
GAMUDA	Gamuda Berhad	cn	2	2.75	2	0	6.75
GCORP	General Corporation Berhad	cn	0	0	0	0	0
GHOPE	Golden Hope Plantitions Berhad	pl	2.2	2.25	2.5	2	8.95
GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	1	0	0	0	1
GPERAK	Gula Perak Berhad	htl	1	0	0	0	1
GTING	Genting Berhad	ts	2	0	0	0	2
GUH	Grand United Holding Berhad	ip	2	0	0	0	2
GUINES	Guiness Anchor Berhad	cp	1.5	0	0	3	4.5
HALIM	HalimMazmin Berhad	ts	0	0	0	0	0
HAPSNG	Hang Seng Consolidated Berhad	ts	2	0	0	0	2
HDBS	Hwang - DBS (Malaysia) Berhad	f	1.5	0	0	0	1.5
HL	Highland & Lowland Berhad	pl	2	0	0	2	4
HLBANK	Hong Leong bank Berhad	f	2	2	0	0	4
HLIND	Hong Leong Industries Berhad	cp	1.67	0	0	0	1.67
HSL	Hock Seen Lee Berhad	cn	1.5	2	2	1	6.5
HUMEIND	Hume Industries (Malaysia) Berhad	ip	2	0	0	0	2
HUOJOO	Hua Joo Seng Interprise Berhad	cp	1	0	1	0	2
HWGB	Ho Wa Genting Berhad	ip	2	0	0	0	2
ICP	Industrial Concrete Products Berhad	ip	2.5	0	0	0	2.5
IGB	IGB Berhad	pr	2	0	0	0	2
IJM	IJM Corporation Berhad	cn	2.5	2	2.33	0	6.83
INSAS	Insas Berhad	f	2	0	0	0	2
INTI	Inti Universal Holdings Berhad	ts	1	0	3	0	4
IOICORP	IOI Corporation Berhad	pl	2.5	0	0	0	2.5
IOIPROP	IOI Properties Berhad	pr	2	0	0	0	2
IP	Island & Peninsular Berhad	pr	1.5	0	0	0	1.5
JERNEH	Jerneh Asia Berhad	f	2.5	0	0	0	2.5
JOHPORT	Johor Port Berhad	ts	0	0	0	0	0
JTIASA	Jaya Tiasa Holdings Berhad	ip	2	0	0	0	2
JTINTER	JT International Berhad	cp	2	0	0	0	2
JUSCO	Jaya Jusco Stores Berhad	ts	0	0	2	0	2
KEMAS	Kumpulan Emas Berhad	ts	1.5	0	0	0	1.5
KENANGA	K & N Kenanga Holdings Berhad	f	2.5	0	3	0	5.5
KFC	KFC Holdings (Malaysia) Berhad	ts	2.5	2.5	2	0	7
KFIMA	Kumpulan FIMA Berhad	f	0	0	0	0	0
KIANJOO	Kian Joo Can Factory Berhad	ip	2	0	0	0	2
KILHALL	Killinghall Malaysia Berhad	f	0	0	0	0	0
KIMHIN	Kim Hin Industry Berhad	ip	2	0	0	0	2
KLK	Kuala Lumpur Kepong Berhad	pl	0	0	2	0	2
KLUANG	Kluan Rubber Company (Malaya) Bhd	pl	1	0	0	0	1
KONSORT	Konsortium Logistik Berhad	ts	2.5	0	0	0	2.5
KPJ	KPJ Healthcare Berhad	ts	1.5	0	0	0	1.5
KSENG	Keck Seng (Malaysia) Berhad	ip	2	0	0	0	2
KULIM	Kulim (Malaysia) Berhad	pl	2	0	2	2	6

KWANTAS	Kwantas Corporation Berhad	pl	2.33	0	0	0	2.33
LANDMRK	Lanmarks Berhad	htl	0	0	0	0	0
LEADER	Leader Universal Holdings Berhad	ip	2.5	0	0	0	2.5
LINGUI	Lingui Development Berhad	ip	2	0	2	0	4
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	2.33	1.67	2	0	6
LPF	Ladang Perbadanan FIMA Berhad	pl	1	0	0	0	1
LPI	LPI Holdings Berhad	f	2	0	0	0	2
MAA	MAA Holdings Berhad	f	2	2	3	0	7
MAGNUM	Magnum Corporation Berhad	ts	1.67	0	0	0	1.67
MALAKOF	Malakoff Berhad	ts	2	2.5	2	0	6.5
MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	2	0	0	0	2
MAS	Malaysian Airline System Berhad	ts	2	0	2	0	4
MAYBANK	Malayan Bank Berhad	f	2	0	0	0	2
MBMR	MBM Resources Berhad	ts	2	0	0	0	2
METACOR	Metacorp berhad	ts	1.5	2	0	0	3.5
METROK	Metro Kajang Holdings Berhad	pr	0	0	0	0	0
MFCB	Mega First Corporation Berhad	ts	1	0	0	0	1
MFLOUR	Malayan Flours Mills Berhad	cp	0	0	0	0	0
MIDF	Malaysian Industrial Development Bhd	f	2	0	0	0	2
MKLAND	MK Land Berhad	pr	0	0	0	0	0
MNI	MNI Holdings Berhad	f	2	0	0	0	2
MNRB	Malaysian National Reinsurance Berhad	f	1.67	2	3	0	6.67
MOX	Malaysian Oxigen Berhad	ip	1.5	0	0	0	1.5
MPI	Malaysian Pacific Industries Berhad	tech	2	0	0	0	2
MRCB	Malaysian Resources Corporation Bhd	ts	2	0	0	0	2
MSC	Malaysia Smelting Corporate Berhad	ip	0	0	0	0	0
MTD	MTD Capital Berhad	cn	2.33	0	0	0	2.33
MUDA	Muda Holdings Berhad	ip	2.5	0	0	0	2.5
MUIPROP	MUI Properties Berhad	pr	1	0	0	0	1
MULPHA	Mulpha International Berhad	ts	0	0	0	0	0
NALURI	Naluri Berhad	ts	0	0	0	0	0
NANYANG	Nanyang Press Holdings Berhad	ts	2.5	3	0	0	5.5
NCB	NCB Holding Berhad	ts	2.5	0	0	0	2.5
NEGARA	Negara Properties (M) Berhad	pr	1.33	0	1	1	3.33
NESTLE	Nestle Malaysia Berhad	cp	2	0	0	0	2
NSOP	Negri Sembilan Oil Palms Berhad	pl	1	0	0	0	1
ORIENT	Oriental Holdings Berhad	cp	1.5	0	0	0	1.5
OSK	OSK Holdings Berhad	f	2	0	0	0	2
OYL	OYL Industries Berhad	cp	2	0	0	0	2
PACMAS	PacificMas Berhad	f	2.5	0	0	0	2.5
PALMC	Palmco Holding Berhad	ip	n/a	n/a	n/a	n/a	n/a
PANTAI	Pantai Holdings Berhad	ts	1.67	0	3	0	4.67
PARAMOUNT	Paramount Corporation Berhad	pr	2	2	3	0	7
PBBANK	Public Bank Berhad	f	1.33	2.4	2	2	7.73
PELANGI	Pelangi Berhad	pr	0	0	0	0	0
PETDAG	Petronas Dagangan Berhad	ts	2	2.5	1	0	5.5
PETGAS	Petronas Gas Berhad	ip	0	0	0	0	0
PGARDEN	Petaling Garden Berhad	pr	0	0	0	0	0
PJDEV	PJ Development Holdings Berhad	cn	2	0	0	0	2
PMCORP	Pan Malaysia Corporation Berhad	ip	0	0	0	0	0
PMIND	Pan Malaysia Industries Berhad	ts	1	0	0	0	1

PO	Pasific & Orient Berhad	f	1.5	0	0	0	1.5
PPB	PPB Group Berhad	cp	1.5	0	0	0	1.5
PROTON	Perusahaan Otomobil Nasional Berhad	cp	2	2.33	3	2.5	9.83
PSCI	PSC Industries Berhad	ip	1	0	0	0	1
PTGTIN	Petling Tin Berhad	pr	0	0	0	0	0
RESORT	Resorts World Berhad	ts	1	0	0	0	1
RHB	RHB Capital Berhad	f	1	0	2	0	3
ROADBLD	Road Builder Holdings (M) Berhad	cn	1.75	2	2	2	7.75
RVIEW	Reverview Rubber Estates Berhad	pl	0	0	0	0	0
SAB	Southern Acids(M) Berhad	ip	2	0	0	0	2
SAPURA	Sapura Telecommunications Berhad	tech	1	0	0	0	1
SBAGAN	Sungai Bagan Rubber Co (Malaya) Bhd	pl	1.5	0	0	0	1.5
SBANK	Southtern Bank Berhad	f	1	0	2	1	4
SDRED	Selangor Dredging Berhad	pr	1	0	0	0	1
SETIA	SP Setia Berhad	pr	2.33	2.6	0	0	4.93
SHANG	Shangrila Hotel (M) Berhad	htl	1	0	0	0	1
SHELL	Shell Refening Company (M) Bhd	ip	2.67	0	0	3	5.67
SHL	SHL Consolidated Berhad	pr	1.67	0	0	0	1.67
SIME	Sime Darby Berhad	ts	2	0	2	0	4
SIMEPTY	Sime UEP Properties Berhad	pr	2	0	0	3	5
SOP	Sarawak Oil Palms Berhad	pl	1.5	0	0	0	1.5
SPB	Selangor Properties Berhad	pr	0	0	0	0	0
SRAWAK	Sarawak Enterprise Corporation Behad	ts	1.5	0	0	0	1.5
SSTEEL	Southern Steel Berhad	ip	2.5	0	0	0	2.5
STAR	Star Publications Malaysia Berhad	ts	2.75	2.6	0	2	7.35
SUNCITY	Sunway City Berhad	pr	1.5	0	0	0	1.5
SUNRISE	Sunrise Berhad	pr	2	0	0	0	2
TA	Ta Interprise Berhad	f	2	0	0	0	2
TAANN	Ta Ann Holdings Behad	ip	2	0	0	1.5	3.5
TALAM	Talam Corporation Berhad	pr	0	0	0	0	0
TANJONG	Tanjong Public Limited Company	ts	2	0	0	0	2
TASEK	Tasek Corporation Berhad	ip	2.5	2	0	0	4.5
TCHONG	Tan Chong Motor Holdings Berhad	cp	1	0	0	0	1
TELKOM	Telekom Malaysia Berhad	ts	3	2.75	2.33	0	8.08
TENAGA	Tenaga Nasional Berhad	ts	2.67	2.75	2	2.5	9.92
TEXCHEM	Texchem resources Berhad	ts	1.67	0	0	0	1.67
THGROUP	TH Group Berhad	pl	2	0	0	0	2
TIME	Time Engineering Berhad	ts	2	2	0	0	4
TRACTOR	Tractors Malaysia Holdings Berhad	ip	1.75	2	3	2	8.75
TSH	TSH Resources Berhad	ip	2.5	0	0	0	2.5
TWS	TWS Berhad	cp	1.5	0	2	2.66	6.16
UAC	UAC Berhad	ip	2	0	0	0	2
UMLAND	United Malayan Land Berhad	pr	2	0	0	0	2
UMW	UMW Holdings Berhad	cp	2.6	3	3	0	8.6
UTDPLT	United Plations Berhad	pl	2.5	3	2	2	9.5
UWOOD	U-wood Holdings Berhad	pr	1.5	0	0	0	1.5
WCT	WCT Engineering Berhad	cn	2	0	0	0	2
WLDWIDE	Worldwidw Holdings Berhad	pr	2	2	0	2	6
WTK	WTK Holdings Berhad	ip	2.5	0	0	0	2.5
YHS	Yeo Hiap Seng Malaysia Berhad	cp	1.5	0	2	0	3.5
YTL	YTL Corporation Berhad	cn	2	0	0	0	2

YTLCMT	YTL Cement Berhad	ip	2.5	0	0	0	2.5
Year 2001							
ACPI	ACP Industries Berhad	ip	2	0	0	0	2
AFFIN	Affin Holdings Berhad	f	1	0	1	0	2
AIC	AIC Corporation Berhad	tech	1.5	0	0	0	1.5
AJI	Ajinamoto Malaysia Berhad	cp	1.5	0	0	0	1.5
ALCOM	Aluminium Company of Malaysia Bhd	ip	2	0	2	1	5
AM	A & M Realty Berhad	pr	1	0	0	0	1
AMMB	AMMB Holdings Berhad	f	3	2.25	0	2	7.25
AMWAY	Amway (Malaysia) Holding Berhad	ts	2	0	0	0	2
ANNJOO	Ann Joo Resources Berhad	ip	2	0	0	0	2
APOLLO	Apollo Food Holdings berhad	cp	1	0	0	0	1
ASIAFILE	Asia File Corporation Berhad	cp	1.67	0	0	0	1.67
ASIATIC	Asiatic Development Berhad	pl	2	0	3	0	5
AVENUE	Avenue Asset Berhad	f	0	0	0	0	0
BAT	British American Tobacco (M) Berhad	cp	2	1	2	0	5
BCB	BCB Berhad	pr	2	0	0	0	2
BJCAP	Berjaya Capital Berhad	f	2	0	0	0	2
BJGROUP	Berjaya Group Berhad	ts	0	0	0	0	0
BJLAND	Berjaya Land Berhad	ts	2	0	0	0	2
BJTTO	Berja Sports Toto Berhad	ts	1.67	2.67	0	0	4.34
BKAWN	Batu Kawan Berhad	pl	0	0	0	0	0
BOLTON	Bolton Berhad	pr	2	0	0	0	2
BRAYA	Bandaraya Developments Berhad	pr	2	0	2	1	5
BSTEAD	Boustead Holdings Berhad	ts	2	0	0	0	2
CAMERLIN	Camerlin Group	ip	2	0	0	0	2
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	2.33	3	2	0	7.33
CHHB	Country Heights Holding Berhad	pr	2	0	1	0	3
CHINTEK	Chin Teck Plations Berhad	pl	2	0	0	0	2
CIMA	Cement Industries of Malaysia Berhad	ip	0	0	2	2	4
CMSB	Cahaya Mata Sarawak Berhad	f	3	2.33	0	0	5.33
COMMER	Commerce	f	2.5	2	0	0	4.5
COSWAY	Cosway Corporation Berhad	cp	1	2	0	0	3
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	0	0	0	0	0
DAIMAN	Daiman Developments Berhad	pr	2	0	0	0	2
DIALOG	Dialog Group Berhad	ts	2.67	2	3	0	7.67
DIJACOR	Dijaya Corporation Brhad	pr	2	0	1	1	4
DLADY	Dutch Lady Milk Industries Berhad	cp	1.5	0	0	0	1.5
DLLOYD	Delloyd Ventures Berhad	ip	2.5	0	0	0	2.5
DNP	DNP Holdings Berhad	cp	1.67	0	0	0	1.67
DRHBCOM	DRB-Hicom Berhad	ip	2	2.5	0	0	4.5
EKOVEST	Ekovest Berhad	cn	2	0	0	0	2
EKRAN	Ekran Berhad	pr	2	0	0	0	2
EKSONS	Eksons Corporation Berhad	ip	0	0	0	0	0
ENG	Eng Teknologi Holdings Berhad	tech	2.5	0	2	0	4.5
EO	Eastern Oriental Berhad	pr	0	0	0	0	0
EON	Edaran Otomobil Nasional Berhad	ts	2.67	2.75	0	2	7.42
EPIC	Eastern Pasific Industrial Co Bhd	ts	0	0	1	0	1
ESSO	Esso Malaysia Berhad	ip	1	2	0	0	3
FACBRES	Facb Resorts Berhad	pr	2	0	0	1.33	3.33
FAREAST	Far East Holdings Berhad	pl	2	0	0	0	2

FFM	FFM Berhad	cp	0	0	0	0	0
FN	Fraser & Neave Holdings Berhad	cp	1.67	2.25	0	2.5	6.42
FORMIS	Formosa Prosonic Industries Berhad	ts	1.67	0	0	0	1.67
FPI	Formis Malaysia Berhad	cp	2	0	0	0	2
GAMUDA	Gamuda Berhad	cn	2.5	2.67	0	0	5.17
GCORP	General Corporation Berhad	cn	0	0	0	0	0
GHOPE	Golden Hope Plantitions Berhad	pl	2.2	2.25	2.5	2	8.95
GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	1	0	0	0	1
GPERAK	Gula Perak Berhad	htl	0	0	0	0	0
GTING	Genting Berhad	ts	2.5	0	0	0	2.5
GUH	Grand United Holding Berhad	ip	2.5	0	0	0	2.5
GUINES	Guiness Anchor Berhad	cp	1.66	2.67	2	3	9.33
HALIM	HalimMazmin Berhad	ts	1	0	1	0	2
HAPSNG	Hang Seng Consolidated Berhad	ts	2	0	0	0	2
HDBS	Hwang - DBS (Malaysia) Berhad	f	2.5	0	0	0	2.5
HL	Highland & Lowland Berhad	pl	2.33	2.67	2.5	2	9.5
HLBANK	Hong Leong bank Berhad	f	2.5	0	0	0	2.5
HLIND	Hong Leong Industries Berhad	cp	2	0	1	0	3
HSL	Hock Seen Lee Berhad	cn	1.33	2	2	1	6.33
HUMEIND	Hume Industries (Malaysia) Berhad	ip	2	0	0	0	2
HUOJOO	Hua Joo Seng Interprise Berhad	cp	1	0	1	0	2
HWGB	Ho Wa Genting Berhad	ip	2	0	0	0	2
ICP	Industrial Concrete Products Berhad	ip	2	0	0	0	2
IGB	IGB Berhad	pr	2	0	0	0	2
IJM	IJM Corporation Berhad	cn	2.25	2.67	0	2	6.92
INSAS	Insas Berhad	f	1	0	0	0	1
INTI	Inti Universal Holdings Berhad	ts	1.5	0	0	0	1.5
IOICORP	IOI Corporation Berhad	pl	2.5	0	0	0	2.5
IOIPROP	IOI Properties Berhad	pr	1	0	0	1	2
IP	Island & Peninsular Berhad	pr	1	0	1	1	3
JERNEH	Jerneh Asia Berhad	f	1.4	0	0	0	1.4
JOHPORT	Johor Port Berhad	ts	0	0	0	0	0
JTIASA	Jaya Tiasa Holdings Berhad	ip	1	0	0	0	1
JTINTER	JT International Berhad	cp	2	0	0	0	2
JUSCO	Jaya Jusco Stores Berhad	ts	1.5	1	2	0	4.5
KEMAS	Kumpulan Emas Berhad	ts	1.67	0	0	0	1.67
KENANGA	K & N Kenanga Holdings Berhad	f	2.5	0	2	0	4.5
KFC	KFC Holdings (Malaysia) Berhad	ts	2.67	3	2	0	7.67
KFIMA	Kumpulan FIMA Berhad	f	0	0	0	0	0
KIANJOO	Kian Joo Can Factory Berhad	ip	0	0	0	0	0
KILHALL	Killinghall Malaysia Berhad	f	0	0	0	0	0
KIMHIN	Kim Hin Industry Berhad	ip	2	0	0	0	2
KLK	Kuala Lumpur Kepong Berhad	pl	1.67	2.33	2	2.5	8.5
KLUANG	Kluan Rubber Company (Malaya) Bhd	pl	1	0	0	0	1
KONSORT	Konsortium Logistik Berhad	ts	2	0	0	0	2
KPJ	KPJ Healthcare Berhad	ts	1.67	1.67	2	0	5.34
KSENG	Keck Seng (Malaysia) Berhad	ip	0	0	0	0	0
KULIM	Kulim (Malaysia) Berhad	pl	1	0	2.5	2	5.5
KWANTAS	Kwantas Corporation Berhad	pl	2.33	0	0	0	2.33
LANDMRK	Lanmarks Berhad	htl	0	0	0	0	0
LEADER	Leader Universal Holdings Berhad	ip	2.5	2	0	0	4.5

LINGUI	Lingui Development Berhad	ip	0	0	0	0	0
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	2	0	0	0	2
LPF	Ladang Perbadanan FIMA Berhad	pl	1	0	0	0	1
LPI	LPI Holdings Berhad	f	2.33	0	0	0	2.33
MAA	MAA Holdings Berhad	f	2	1	1	0	4
MAGNUM	Magnum Corporation Berhad	ts	1.67	0	0	0	1.67
MALAKOF	Malakoff Berhad	ts	2	2.33	2	0	6.33
MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	0	0	0	0	0
MAS	Malaysian Airline System Berhad	ts	2.5	0	2.5	0	5
MAYBANK	Malayan Bank Berhad	f	2.5	0	0	0	2.5
MBMR	MBM Resources Berhad	ts	0	0	0	0	0
METACOR	Metacorp berhad	ts	1	2	0	0	3
METROK	Metro Kajang Holdings Berhad	pr	1	0	0	0	1
MFCB	Mega First Corporation Berhad	ts	1	0	0	0	1
MFLOUR	Malayan Flours Mills Berhad	cp	1.5	0	0	0	1.5
MIDF	Malaysian Industrial Development Bhd	f	2.5	2.33	3	0	7.83
MKLAND	MK Land Berhad	pr	0	0	0	0	0
MNI	MNI Holdings Berhad	f	2	0	0	0	2
MNRB	Malaysian National Reinsurance Berhad	f	2	2.33	0	0	4.33
MOX	Malaysian Oxigen Berhad	ip	0	0	0	0	0
MPI	Malaysian Pacific Industries Berhad	tech	2.5	0	2	0	4.5
MRCB	Malaysian Resources Corporation Bhd	ts	2.5	0	0	0	2.5
MSC	Malaysia Smelting Corporate Berhad	ip	1	0	1	1	3
MTD	MTD Capital Berhad	cn	2.33	0	0	0	2.33
MUDA	Muda Holdings Berhad	ip	2	0	0	0	2
MUIPROP	MUI Properties Berhad	pr	2	0	0	1	3
MULPHA	Mulpha International Berhad	ts	1	0	0	0	1
NALURI	Naluri Berhad	ts	0	0	0	0	0
NANYANG	Nanyang Press Holdings Berhad	ts	2	2	0	0	4
NCB	NCB Holding Berhad	ts	2.5	0	0	0	2.5
NEGARA	Negara Properties (M) Berhad	pr	2	2	1	1	6
NESTLE	Nestle Malaysia Berhad	cp	2	0	0	0	2
NSOP	Negri Sembilan Oil Palms Berhad	pl	1	0	0	0	1
ORIENT	Oriental Holdings Berhad	cp	1	0	0	0	1
OSK	OSK Holdings Berhad	f	1.5	0	0	0	1.5
OYL	OYL Industries Berhad	cp	2	0	3	0	5
PACMAS	PacificMas Berhad	f	2.5	0	0	0	2.5
PALMC	Palmco Holding Berhad	ip	0	1	0	0	1
PANTAI	Pantai Holdings Berhad	ts	1.67	0	0	0	1.67
PARAMOUNT	Paramount Corporation Berhad	pr	2	0	0	0	2
PBBANK	Public Bank Berhad	f	2.67	2.5	2.5	2	9.67
PELANGI	Pelangi Berhad	pr	1	0	0	0	1
PETDAG	Petronas Dagangan Berhad	ts	1.33	2	1	0	4.33
PETGAS	Petronas Gas Berhad	ip	1.5	2	2	0	5.5
PGARDEN	Petaling Garden Berhad	pr	0	0	0	0	0
PJDEV	PJ Development Holdings Berhad	cn	1.67	0	0	0	1.67
PMCORP	Pan Malaysia Corporation Berhad	ip	1	0	0	0	1
PMIND	Pan Malaysia Industries Berhad	ts	1	0	0	0	1
PO	Pasific & Orient Berhad	f	1.5	0	1	0	2.5
PPB	PPB Group Berhad	cp	1	0	0	0	1
PROTON	Perusahaan Otomobil Nasional Berhad	cp	3.67	2.5	3	3	12.17

PSCI	PSC Industries Berhad	ip	1	0	0	0	1
PTGTIN	Petling Tin Berhad	pr	0	0	2	0	2
RESORT	Resorts World Berhad	ts	1.5	0	0	0	1.5
RHB	RHB Capital Berhad	f	2	0	2	0	4
ROADBLD	Road Builder Holdings (M) Berhad	cn	1.75	2	2	2	7.75
RVIEW	Reverview Rubber Estates Berhad	pl	0	0	0	0	0
SAB	Southern Acids(M) Berhad	ip	2	0	1.5	1	4.5
SAPURA	Sapura Telecommunications Berhad	tech	1.5	0	0	0	1.5
SBAGAN	Sungai Bagan Rubber Company Bhd	pl	0	0	0	0	0
SBANK	Southtern Bank Berhad	f	1	0	0	0	1
SDRED	Selangor Dredging Berhad	pr	1	0	0	0	1
SETIA	SP Setia Berhad	pr	2	0	0	0	2
SHANG	Shangrila Hotel (M) Berhad	htl	1	0	0	0	1
SHELL	Shell Refening Company (M) Berhad	ip	2.4	2	2.5	3	9.9
SHL	SHL Consolidated Berhad	pr	1.67	0	0	0	1.67
SIME	Sime Darby Berhad	ts	2.5	0	3	0	5.5
SIMEPTY	Sime UEP Properties Berhad	pr	1	0	3	0	4
SOP	Sarawak Oil Palms Berhad	pl	1.5	0	0	0	1.5
SPB	Selangor Properties Berhad	pr	1	0	0	0	1
SRAWAK	Sarawak Enterprise Corporation Behad	ts	1.5	0	0	0	1.5
SSTEEL	Southern Steel Berhad	ip	0	0	0	0	0
STAR	Star Publications Malaysia Berhad	ts	2.75	2.83	0	2	7.58
SUNCITY	Sunway City Berhad	pr	1.33	0	0	0	1.33
SUNRISE	Sunrise Berhad	pr	2	0	0	0	2
TA	Ta Interprise Berhad	f	2.5	0	0	0	2.5
TAANN	Ta Ann Holdings Behad	ip	2	0	1	0	3
TALAM	Talam Corporation Berhad	pr	2	2	1	0	5
TANJONG	Tanjong Public Limited Company	ts	2	2.4	0	0	4.4
TASEK	Tasek Corporation Berhad	ip	1.5	0	0	0	1.5
TCHONG	Tan Chong Motor Holdings Berhad	cp	1.5	0	0	0	1.5
TELKOM	Telekom Malaysia Berhad	ts	2.5	2.8	3	2	10.3
TENAGA	Tenaga Nasional Berhad	ts	2.5	2.33	2.33	2	9.16
TEXCHEM	Texchem resources Berhad	ts	1.67	2	0	1	4.67
THGROUP	TH Group Berhad	pl	1.8	0	0	2	3.8
TIME	Time Engineering Berhad	ts	1	2.5	3	0	6.5
TRACTOR	Tractors Malaysia Holdings Berhad	ip	1.75	0	3	0	4.75
TSH	TSH Resources Berhad	ip	2.5	0	3	0	5.5
TWS	TWS Berhad	cp	2.5	0	2.5	2.33	7.33
UAC	UAC Berhad	ip	2	0	0	0	2
UMLAND	United Malayan Land Berhad	pr	2	0	0	0	2
UMW	UMW Holdings Berhad	cp	2.67	2.75	2	0	7.42
UTDPLT	United Plations Berhad	pl	2.25	2.33	2.5	2.5	9.58
UWOOD	U-wood Holdings Berhad	pr	2	2	0	0	4
WCT	WCT Engineering Berhad	cn	2	0	3	0	5
WLDWIDE	Worldwidw Holdings Berhad	pr	2	0	0	2	4
WTK	WTK Holdings Berhad	ip	2	0	0	0	2
YHS	Yeo Hiap Seng Malaysia Berhad	cp	2	0	2	0	4
YTL	YTL Corporation Berhad	cn	2	2	1.5	0	5.5
YTLCMT	YTL Cement Berhad	ip	2	0	0	0	2

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ACPI	ACP Industries Berhad	ip	2.5	0	0	0	2.5
AFFIN	Affin Holdings Berhad	f	2.33	0	2.5	0	4.83
AIC	AIC Corporation Berhad	tech	0	0	0	0	0
AJI	Ajinamoto Malaysia Berhad	cp	2	0	2	0	4
ALCOM	Aluminium Company of Malaysia Bhd	ip	2	2	0	2	6
AM	A & M Realty Berhad	pr	1	0	0	0	1
AMMB	AMMB Holdings Berhad	f	2	2	0	2	6
AMWAY	Amway (Malaysia) Holding Berhad	ts	1.5	0	0	0	1.5
ANNJOO	Ann Joo Resources Berhad	ip	1.67	0	0	0	1.67
APOLLO	Apollo Food Holdings berhad	cp	1.5	0	0	0	1.5
ASIAFILE	Asia File Corporation Berhad	cp	2.5	0	0	0	2.5
ASIATIC	Asiatic Development Berhad	pl	2.67	2	0	0	4.67
AVENUE	Avenue Asset Berhad	f	0	0	0	0	0
BAT	British American Tobacco (M) Berhad	cp	2	2.33	2	0	6.33
BCB	BCB Berhad	pr	2	0	0	0	2
BJCAP	Berjaya Capital Berhad	f	2	0	0	0	2
BJGROUP	Berjaya Group Berhad	ts	2	2.25	0	0	4.25
BJLAND	Berjaya Land Berhad	ts	2	0	0	0	2
BJTTO	Berja Sports Toto Berhad	ts	0	2.67	0	0	2.67
BKAWN	Batu Kawan Berhad	pl	2	0	0	0	2
BOLTON	Bolton Berhad	pr	0	0	0	0	0
BRAYA	Bandaraya Developments Berhad	pr	2.5	0	0	0	2.5
BSTEAD	Boustead Holdings Berhad	ts	2.25	3	0	3	8.25
CAMERLIN	Camerlin Group	ip	2	0	0	0	2
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	1	2.25	2.5	0	5.75
CHHB	Country Heights Holding Berhad	pr	2.5	0	0	0	2.5
CHINTEK	Chin Teck Plations Berhad	pl	2.5	0	0	0	2.5
CIMA	Cement Industries of Malaysia Berhad	ip	2	0	0	0	2
CMSB	Cahaya Mata Sarawak Berhad	f	2.5	2.67	2	9	16.17
COMMER	Commerce	f	2.5	0	2	0	4.5
COSWAY	Cosway Corporation Berhad	cp	2	0	0	0	2
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	0	0	0	0	0
DAIMAN	Daiman Developments Berhad	pr	2.5	0	0	0	2.5
DIALOG	Dialog Group Berhad	ts	2.33	0	2.5	0	4.83
DIJACOR	Dijaya Corporation Brhad	pr	2	0	0	0	2
DLADY	Dutch Lady Milk Industries Berhad	cp	2	0	2	0	4
DLLOYD	Delloyd Ventures Berhad	ip	2	0	2	0	4
DNP	DNP Holdings Berhad	cp	2.5	0	1	0	3.5
DRHBCOM	DRB-Hicom Berhad	ip	2	2	2.5	0	6.5
EKOVEST	Ekovest Berhad	cn	2	0	0	0	2
EKRAN	Ekran Berhad	pr	1.5	0	0	0	1.5
EKSONS	Eksons Corporation Berhad	ip	0	0	0	0	0
ENG	Eng Teknologi Holdings Berhad	tech	2.5	0	0	0	2.5
EO	Eastern Oriental Berhad	pr	1	0	0	0	1
EON	Edaran Otomobil Nasional Berhad	ts	1.5	0	2	2	5.5
EPIC	Eastern Pasific Industrial Co Bhd	ts	1.67	0	3	0	4.67
ESSO	Esso Malaysia Berhad	ip	2.67	0	2	0	4.67
FACBRES	Facb Resorts Berhad	pr	2.5	0	2	0	4.5
FAREAST	Far East Holdings Berhad	pl	2	0	0	0	2
FFM	FFM Berhad	cp	1.5	0	0	0	1.5

FN	Fraser & Neave Holdings Berhad	cp	2.33	2.5	2	2.5	9.33
FORMIS	Formosa Prosonic Industries Berhad	ts	1.33	0	0	0	1.33
FPI	Formis Malaysia Berhad	cp	1.33	0	0	0	1.33
GAMUDA	Gamuda Berhad	cn	2	2.4	0	0	4.4
GCORP	General Corporation Berhad	cn	0	0	0	0	0
GHOPE	Golden Hope Plantitions Berhad	pl	2.5	2.33	2.5	2	9.33
GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	1	0	0	0	1
GPERAK	Gula Perak Berhad	htl	0	0	0	0	0
GTING	Genting Berhad	ts	0	0	0	0	0
GUH	Grand United Holding Berhad	ip	2	0	0	0	2
GUINES	Guiness Anchor Berhad	cp	0	2.67	2.67	2	7.34
HALIM	HalimMazmin Berhad	ts	2	0	0	0	2
HAPSNG	Hang Seng Consolidated Berhad	ts	2.5	0	0	0	2.5
HDBS	Hwang - DBS (Malaysia) Berhad	f	2.5	0	0	0	2.5
HL	Highland & Lowland Berhad	pl	2	2.33	2.33	2	8.66
HLBANK	Hong Leong bank Berhad	f	2.5	2.33	1	0	5.83
HLIND	Hong Leong Industries Berhad	cp	1	0	0	0	1
HSL	Hock Seen Lee Berhad	cn	1.33	2	2	0	5.33
HUMEIND	Hume Industries (Malaysia) Berhad	ip	2	0	0	0	2
HUOJOO	Hua Joo Seng Interprise Berhad	cp	1.5	0	2	0	3.5
HWGB	Ho Wa Genting Berhad	ip	2	0	0	0	2
ICP	Industrial Concrete Products Berhad	ip	2	0	0	0	2
IGB	IGB Berhad	pr	2.5	0	0	0	2.5
IJM	IJM Corporation Berhad	cn	2.75	2.75	2.5	2.5	10.5
INSAS	Insas Berhad	f	0	0	0	0	0
INTI	Inti Universal Holdings Berhad	ts	2	0	0	0	2
IOICORP	IOI Corporation Berhad	pl	2.5	0	0	0	2.5
IOIPROP	IOI Properties Berhad	pr	2	0	0	0	2
IP	Island & Peninsular Berhad	pr	2.5	2.6	1	3	9.1
JERNEH	Jerneh Asia Berhad	f	2.5	0	0	0	2.5
JOHPORT	Johor Port Berhad	ts	2	0	0	0	2
JTIASA	Jaya Tiasa Holdings Berhad	ip	2	0	0	0	2
JTINTER	JT International Berhad	cp	2.5	0	0	0	2.5
JUSCO	Jaya Jusco Stores Berhad	ts	2.33	2.5	2	0	6.83
KEMAS	Kumpulan Emas Berhad	ts	2.5	0	0	0	2.5
KENANGA	K & N Kenanga Holdings Berhad	f	2.5	0	0	0	2.5
KFC	KFC Holdings (Malaysia) Berhad	ts	2.5	0	0	0	2.5
KFIMA	Kumpulan FIMA Berhad	f	0	0	0	0	0
KIANJOO	Kian Joo Can Factory Berhad	ip	2.5	0	2.5	0	5
KILHALL	Killinghall Malaysia Berhad	f	0	0	0	0	0
KIMHIN	Kim Hin Industry Berhad	ip	2	0	0	0	2
KLK	Kuala Lumpur Kepong Berhad	pl	1	0	0	0	1
KLUANG	Kluan Rubber Company (Malaya) Bhd	pl	0	0	0	0	0
KONSORT	Konsortium Logistik Berhad	ts	2.5	0	2	0	4.5
KPJ	KPJ Healthcare Berhad	ts	2	2.33	2.5	0	6.83
KSENG	Keck Seng (Malaysia) Berhad	ip	0	0	0	0	0
KULIM	Kulim (Malaysia) Berhad	pl	2	0	2	2.5	6.5
KWANTAS	Kwantas Corporation Berhad	pl	2.5	0	0	0	2.5
LANDMRK	Lanmarks Berhad	htl	2	0	0	0	2
LEADER	Leader Universal Holdings Berhad	ip	2.5	2.5	2	0	7
LINGUI	Lingui Development Berhad	ip	1.5	0	2	2	5.5

LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	2	2	3	0	7
LPF	Ladang Perbadanan FIMA Berhad	pl	2	0	1	1	4
LPI	LPI Holdings Berhad	f	2.67	0	0	0	2.67
MAA	MAA Holdings Berhad	f	2.5	0	0	0	2.5
MAGNUM	Magnum Corporation Berhad	ts	2.33	2.67	0	0	5
MALAKOF	Malakoff Berhad	ts	2.33	2.5	0	2	6.83
MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	2	0	0	0	2
MAS	Malaysian Airline System Berhad	ts	2	0	0	0	2
MAYBANK	Malayan Bank Berhad	f	2.67	2.4	2	2	9.07
MBMR	MBM Resources Berhad	ts	2.5	0	0	0	2.5
METACOR	Metacorp berhad	ts	2.5	2	0	2	6.5
METROK	Metro Kajang Holdings Berhad	pr	0	0	0	0	0
MFCB	Mega First Corporation Berhad	ts	1	0	0	0	1
MFLOUR	Malayan Flours Mills Berhad	cp	2	0	0	0	2
MIDF	Malaysian Industrial Development Bhd	f	2.25	2	0	0	4.25
MKLAND	MK Land Berhad	pr	2	0	0	0	2
MNI	MNI Holdings Berhad	f	2.5	0	0	0	2.5
MNRB	Malaysian National Reinsurance Berhad	f	2.5	2.25	0	0	4.75
MOX	Malaysian Oxigen Berhad	ip	0	0	0	0	0
MPI	Malaysian Pacific Industries Berhad	tech	2.33	0	2	0	4.33
MRCB	Malaysian Resources Corporation Bhd	ts	2.5	0	0	0	2.5
MSC	Malaysia Smelting Corporate Berhad	ip	0	0	0	1	1
MTD	MTD Capital Berhad	cn	2	0	0	0	2
MUDA	Muda Holdings Berhad	ip	2	0	0	0	2
MUIPROP	MUI Properties Berhad	pr	2	0	0	0	2
MULPHA	Mulpha International Berhad	ts	0	0	0	0	0
NALURI	Naluri Berhad	ts	2.5	0	0	0	2.5
NANYANG	Nanyang Press Holdings Berhad	ts	2.5	3	0	0	5.5
NCB	NCB Holding Berhad	ts	2.5	0	0	0	2.5
NEGARA	Negara Properties (M) Berhad	pr	2	1	1.5	1	5.5
NESTLE	Nestle Malaysia Berhad	cp	1.5	2.33	2	3	8.83
NSOP	Negri Sembilan Oil Palms Berhad	pl	2.5	0	0	0	2.5
ORIENT	Oriental Holdings Berhad	cp	1.5	0	0	0	1.5
OSK	OSK Holdings Berhad	f	2	0	0	0	2
OYL	OYL Industries Berhad	cp	2.5	0	2	0	4.5
PACMAS	PacificMas Berhad	f	2	0	0	0	2
PALMC	Palmco Holding Berhad	ip	2	0	0	0	2
PANTAI	Pantai Holdings Berhad	ts	2.5	0	0	0	2.5
PARAMOUNT	Paramount Corporation Berhad	pr	2	0	0	0	2
PBBANK	Public Bank Berhad	f	2.67	2.6	2.5	2	9.77
PELANGI	Pelangi Berhad	pr	2	0	0	0	2
PETDAG	Petronas Dagangan Berhad	ts	1.5	2	0	0	3.5
PETGAS	Petronas Gas Berhad	ip	2	3	3	2.5	10.5
PGARDEN	Petaling Garden Berhad	pr	1.5	0	0	0	1.5
PJDEV	PJ Development Holdings Berhad	cn	2	0	0	0	2
PMCORP	Pan Malaysia Corporation Berhad	ip	1	0	1	0	2
PMIND	Pan Malaysia Industries Berhad	ts	0	0	0	0	0
PO	Pasific & Orient Berhad	f	2.5	0	0	0	2.5
PPB	PPB Group Berhad	cp	1.5	0	2	0	3.5
PROTON	Perusahaan Otomobil Nasional Berhad	cp	2.33	2.5	2	2	8.83
PSCI	PSC Industries Berhad	ip	1	0	0	0	1

PTGTIN	Petling Tin Berhad	pr	0	0	0	0	0
RESORT	Resorts World Berhad	ts	2.5	0	0	0	2.5
RHB	RHB Capital Berhad	f	2	0	2	0	4
ROADBLD	Road Builder Holdings (M) Berhad	cn	2.5	0	2.33	0	4.83
RVIEW	Reverview Rubber Estates Berhad	pl	0	0	0	0	0
SAB	Southern Acids(M) Berhad	ip	2	0	1.5	1	4.5
SAPURA	Sapura Telecommunications Berhad	tech	1.5	0	0	0	1.5
SBAGAN	Sungai Bagan Rubber Company Bhd	pl	0	0	0	0	0
SBANK	Souththern Bank Berhad	f	0	0	2	0	2
SDRED	Selangor Dredging Berhad	pr	1	0	0	0	1
SETIA	SP Setia Berhad	pr	2.33	2.5	2	0	6.83
SHANG	Shangrila Hotel (M) Berhad	htl	2	0	0	0	2
SHELL	Shell Refening Company (M) Berhad	ip	2.2	2.5	2.33	3	10.03
SHL	SHL Consolidated Berhad	pr	2	0	0	0	2
SIME	Sime Darby Berhad	ts	0	2	2.5	0	4.5
SIMEPTY	Sime UEP Properties Berhad	pr	1.5	2	1	2	6.5
SOP	Sarawak Oil Palms Berhad	pl	1.5	0	0	0	1.5
SPB	Selangor Properties Berhad	pr	0	0	0	0	0
SRAWAK	Sarawak Enterprise Corporation Behad	ts	2.5	0	0	0	2.5
SSTEEL	Southern Steel Berhad	ip	1	0	0	0	1
STAR	Star Publications Malaysia Berhad	ts	2.25	2.67	0	1	5.92
SUNCITY	Sunway City Berhad	pr	0	0	0	0	0
SUNRISE	Sunrise Berhad	pr	2.5	0	0	0	2.5
TA	Ta Interprise Berhad	f	2.5	0	0	0	2.5
TAANN	Ta Ann Holdings Behad	ip	1	0	0	0	1
TALAM	Talam Corporation Berhad	pr	2	2	0	0	4
TANJONG	Tanjong Public Limited Company	ts	0	2.5	0	0	2.5
TASEK	Tasek Corporation Berhad	ip	2	0	0	0	2
TCHONG	Tan Chong Motor Holdings Berhad	cp	2	0	0	0	2
TELKOM	Telekom Malaysia Berhad	ts	2.4	3	2	2	9.4
TENAGA	Tenaga Nasional Berhad	ts	2.25	2	2.33	2	8.58
TEXCHEM	Texchem resources Berhad	ts	0	0	0	0	0
THGROUP	TH Group Berhad	pl	1.8	0	0	2	3.8
TIME	Time Engineering Berhad	ts	0	2	2	0	4
TRACTOR	Tractors Malaysia Holdings Berhad	ip	2	3	2	0	7
TSH	TSH Resources Berhad	ip	2	2	3	2.33	9.33
TWS	TWS Berhad	cp	2	0	2.33	2	6.33
UAC	UAC Berhad	ip	2.5	0	3	0	5.5
UMLAND	United Malayan Land Berhad	pr	2.5	0	0	0	2.5
UMW	UMW Holdings Berhad	cp	2.5	2.5	2.5	2	9.5
UTDPLT	United Plations Berhad	pl	2.5	2.5	2.5	2.5	10
UWOOD	U-wood Holdings Berhad	pr	1.33	0	0	0	1.33
WCT	WCT Engineering Berhad	cn	2	0	0	0	2
WLDWIDE	Worldwidw Holdings Berhad	pr	2	0	0	2	4
WTK	WTK Holdings Berhad	ip	2.5	0	3	0	5.5
YHS	Yeo Hiap Seng Malaysia Berhad	cp	2	0	2	0	4
YTL	YTL Corporation Berhad	cn	2	0	0	0	2
YTLCMT	YTL Cement Berhad	ip	2.5	0	2.5	0	5
Year 2003							
ACPI	ACP Industries Berhad	ip	2	0	0	0	2
AFFIN	Affin Holdings Berhad	f	2.5	0	0	0	2.5

AIC	AIC Corporation Berhad	tech	2	0	0	0	2
AJI	Ajinamoto Malaysia Berhad	cp	2	2	2	0	6
ALCOM	Aluminium Company of Malaysia Bhd	ip	2.5	3	2	3	10.5
AM	A & M Realty Berhad	pr	1	0	0	0	1
AMMB	AMMB Holdings Berhad	f	2.5	2	0	0	4.5
AMWAY	Amway (Malaysia) Holding Berhad	ts	2	2	0	0	4
ANNJOO	Ann Joo Resources Berhad	ip	2	0	0	0	2
APOLLO	Apollo Food Holdings berhad	cp	1.5	0	0	0	1.5
ASIAFILE	Asia File Corporation Berhad	cp	2.5	0	2	0	4.5
ASIATIC	Asiatic Development Berhad	pl	2	0	0	2	4
AVENUE	Avenue Asset Berhad	f	0	0	1	0	1
BAT	British American Tobacco (M) Berhad	cp	2	2	2.5	0	6.5
BCB	BCB Berhad	pr	2	0	0	0	2
BJCAP	Berjaya Capital Berhad	f	2	0	0	0	2
BJGROUP	Berjaya Group Berhad	ts	0	0	0	0	0
BJLAND	Berjaya Land Berhad	ts	2.5	0	0	0	2.5
BJTTO	Berja Sports Toto Berhad	ts	0	2.67	0	0	2.67
BKAWN	Batu Kawan Berhad	pl	2	0	1.5	0	3.5
BOLTON	Bolton Berhad	pr	0	0	0	0	0
BRAYA	Bandaraya Developments Berhad	pr	1.5	0	1	0	2.5
BSTEAD	Boustead Holdings Berhad	ts	2.25	2.5	0	0	4.75
CAMERLIN	Camerlin Group	ip	0	0	0	0	0
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	2	2.5	2	0	6.5
CHHB	Country Heights Holding Berhad	pr	2	0	0	0	2
CHINTEK	Chin Teck Plations Berhad	pl	1.67	0	0	0	1.67
CIMA	Cement Industries of Malaysia Berhad	ip	0	0	2.5	0	2.5
CMSB	Cahaya Mata Sarawak Berhad	f	2.6	2.16	3	2	9.76
COMMER	Commerce	f	2.33	2.67	2.5	2	9.5
COSWAY	Cosway Corporation Berhad	cp	2	0	1	0	3
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	0	0	0	0	0
DAIMAN	Daiman Developments Berhad	pr	2.5	0	0	0	2.5
DIALOG	Dialog Group Berhad	ts	2	0	3	0	5
DIJACOR	Dijaya Corporation Brhad	pr	2	0	2	0	4
DLADY	Dutch Lady Milk Industries Berhad	cp	2	0	2	0	4
DLLOYD	Delloyd Ventures Berhad	ip	2	0	2.5	0	4.5
DNP	DNP Holdings Berhad	cp	2.5	0	0	0	2.5
DRHBCOM	DRB-Hicom Berhad	ip	2.67	3	3	0	8.67
EKOVEST	Ekovest Berhad	cn	2	0	0	0	2
EKRAN	Ekran Berhad	pr	2.5	0	0	0	2.5
EKSONS	Eksons Corporation Berhad	ip	0	1	0	0	1
ENG	Eng Teknologi Holdings Berhad	tech	2.5	0	0	0	2.5
EO	Eastern Oriental Berhad	pr	0	0	0	0	0
EON	Edaran Otomobil Nasional Berhad	ts	3	2.67	2.5	2	10.17
EPIC	Eastern Pasific Industrial Co Berhad	ts	2	0	2.5	2	6.5
ESSO	Esso Malaysia Berhad	ip	2.5	0	0	2.33	4.83
FACBRES	Facb Resorts Berhad	pr	2	0	0	0	2
FAREAST	Far East Holdings Berhad	pl	2	0	0	0	2
FFM	FFM Berhad	cp	1.5	0	0	0	1.5
FN	Fraser & Neave Holdings Berhad	cp	2.33	2.25	2	2	8.58
FORMIS	Formosa Prosonic Industries Berhad	ts	1	0	0	0	1
FPI	Formis Malaysia Berhad	cp	1	0	0	0	1

GAMUDA	Gamuda Berhad	cn	2.5	2.5	0	0	5
GCORP	General Corporation Berhad	cn	0	0	1	0	1
GHOPE	Golden Hope Plantitions Berhad	pl	2.8	2.25	3	2.67	10.72
GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	2	0	0	0	2
GPERAK	Gula Perak Berhad	htl	0	0	0	0	0
GTING	Genting Berhad	ts	2.5	0	0	0	2.5
GUH	Grand United Holding Berhad	ip	2	0	0	2.33	4.33
GUINES	Guiness Anchor Berhad	cp	1	0	0	0	1
HALIM	HalimMazmin Berhad	ts	1.5	0	0	0	1.5
HAPSNG	Hang Seng Consolidated Berhad	ts	2	0	0	0	2
HDBS	Hwang - DBS (Malaysia) Berhad	f	2.5	0	0	0	2.5
HL	Highland & Lowland Berhad	pl	2	2	3	2.67	9.67
HLBANK	Hong Leong bank Berhad	f	2.5	0	0	0	2.5
HLIND	Hong Leong Industries Berhad	cp	1	0	0	0	1
HSL	Hock Seen Lee Berhad	cn	1.67	2	2	0	5.67
HUMEIND	Hume Industries (Malaysia) Berhad	ip	2	0	0	0	2
HUOJOO	Hua Joo Seng Interprise Berhad	cp	1.5	0	2	0	3.5
HWGB	Ho Wa Genting Berhad	ip	2	0	0	0	2
ICP	Industrial Concrete Products Berhad	ip	2.33	0	2.5	0	4.83
IGB	IGB Berhad	pr	2.33	2	0	0	4.33
IJM	IJM Corporation Berhad	cn	3	2.25	2	2	9.25
INSAS	Insas Berhad	f	0	0	0	0	0
INTI	Inti Universal Holdings Berhad	ts	2	0	2	0	4
IOICORP	IOI Corporation Berhad	pl	2.25	2.67	3	0	7.92
IOIPROP	IOI Properties Berhad	pr	2	0	3	0	5
IP	Island & Peninsular Berhad	pr	2.5	0	0	0	2.5
JERNEH	Jerneh Asia Berhad	f	2.5	0	0	0	2.5
JOHPORT	Johor Port Berhad	ts	0	0	0	0	0
JTIASA	Jaya Tiasa Holdings Berhad	ip	0	0	0	0	0
JTINTER	JT International Berhad	cp	2	2.33	0	0	4.33
JUSCO	Jaya Jusco Stores Berhad	ts	2	2.33	0	2	6.33
KEMAS	Kumpulan Emas Berhad	ts	0	0	0	0	0
KENANGA	K & N Kenanga Holdings Berhad	f	2.5	0	0	0	2.5
KFC	KFC Holdings (Malaysia) Berhad	ts	2.67	2	0	0	4.67
KFIMA	Kumpulan FIMA Berhad	f	1	0	0	0	1
KIANJOO	Kian Joo Can Factory Berhad	ip	2	0	0	0	2
KILHALL	Killinghall Malaysia Berhad	f	0	0	0	0	0
KIMHIN	Kim Hin Industry Berhad	ip	2	0	0	0	2
KLK	Kuala Lumpur Kepong Berhad	pl	0	0	0	0	0
KLUANG	Kluan Rubber Company (M) Berhad	pl	0	0	0	0	0
KONSORT	Konsortium Logistik Berhad	ts	2	0	0	0	2
KPJ	KPJ Healthcare Berhad	ts	1.67	2	2	0	5.67
KSENG	Keck Seng (Malaysia) Berhad	ip	0	0	0	0	0
KULIM	Kulim (Malaysia) Berhad	pl	2.33	0	2.5	3	7.83
KWANTAS	Kwantas Corporation Berhad	pl	2.25	2	3	2.67	9.92
LANDMRK	Lanmarks Berhad	htl	2	0	0	0	2
LEADER	Leader Universal Holdings Berhad	ip	2.25	2.5	0	0	4.75
LINGUI	Lingui Development Berhad	ip	0	0	0	0	0
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	2.5	0	0	0	2.5
LPF	Ladang Perbadanan FIMA Berhad	pl	2	0	1	1	4
LPI	LPI Holdings Berhad	f	2.33	2	2	0	6.33

MAA	MAA Holdings Berhad	f	3	0	2	0	5
MAGNUM	Magnum Corporation Berhad	ts	2	0	0	0	2
MALAKOF	Malakoff Berhad	ts	2.33	2.67	3	0	8
MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	0	0	0	0	0
MAS	Malaysian Airline System Berhad	ts	2.6	0	2	0	4.6
MAYBANK	Malayan Bank Berhad	f	2.67	2.5	0	2.5	7.67
MBMR	MBM Resources Berhad	ts	2.5	0	0	0	2.5
METACOR	Metacorp berhad	ts	0	0	0	0	0
METROK	Metro Kajang Holdings Berhad	pr	2	0	0	0	2
MFCB	Mega First Corporation Berhad	ts	1	0	0	0	1
MFLOUR	Malayan Flours Mills Berhad	cp	1.5	0	0	0	1.5
MIDF	Malaysian Industrial Development Bhd	f	1.67	0	0	0	1.67
MKLAND	MK Land Berhad	pr	2	0	0	0	2
MNI	MNI Holdings Berhad	f	2.5	0	0	0	2.5
MNRB	Malaysian National Reinsurance Berhad	f	2.5	0	0	0	2.5
MOX	Malaysian Oxigen Berhad	ip	0	0	0	0	0
MPI	Malaysian Pacific Industries Berhad	tech	1.67	0	0	0	1.67
MRCB	Malaysian Resources Corporation Bhd	ts	0	0	0	0	0
MSC	Malaysia Smelting Corporate Berhad	ip	0	0	0	0	0
MTD	MTD Capital Berhad	cn	2	2	0	0	4
MUDA	Muda Holdings Berhad	ip	2	0	0	0	2
MUIPROP	MUI Properties Berhad	pr	3	0	0	0	3
MULPHA	Mulpha International Berhad	ts	0	0	0	0	0
NALURI	Naluri Berhad	ts	2	0	0	0	2
NANYANG	Nanyang Press Holdings Berhad	ts	2	2	0	0	4
NCB	NCB Holding Berhad	ts	2.5	0	0	0	2.5
NEGARA	Negara Properties (M) Berhad	pr	2	1	3	1	7
NESTLE	Nestle Malaysia Berhad	cp	1.67	2	1.67	2.67	8.01
NSOP	Negri Sembilan Oil Palms Berhad	pl	2.5	0	0	0	2.5
ORIENT	Oriental Holdings Berhad	cp	1.5	0	0	0	1.5
OSK	OSK Holdings Berhad	f	2.5	0	0	0	2.5
OYL	OYL Industries Berhad	cp	2.5	0	2	0	4.5
PACMAS	PacificMas Berhad	f	2	0	0	0	2
PALMC	Palmco Holding Berhad	ip	1.67	0	0	0	1.67
PANTAI	Pantai Holdings Berhad	ts	0	0	0	0	0
PARAMOUNT	Paramount Corporation Berhad	pr	2.33	1.67	0	1	5
PBBANK	Public Bank Berhad	f	3	2.6	2.5	2	10.1
PELANGI	Pelangi Berhad	pr	2	1	0	0	3
PETDAG	Petronas Dagangan Berhad	ts	0	2	2	0	4
PETGAS	Petronas Gas Berhad	ip	2.4	2.5	2.5	0	7.4
PGARDEN	Petaling Garden Berhad	pr	2	0	0	0	2
PJDEV	PJ Development Holdings Berhad	cn	2	0	2.5	0	4.5
PMCORP	Pan Malaysia Corporation Berhad	ip	0	0	0	0	0
PMIND	Pan Malaysia Industries Berhad	ts	0	0	0	0	0
PO	Pasific & Orient Berhad	f	2.5	0	0	0	2.5
PPB	PPB Group Berhad	cp	1.5	0	2	0	3.5
PROTON	Perusahaan Otomobil Nasional Berhad	cp	2.5	2.5	2	2	9
PSCI	PSC Industries Berhad	ip	1	0	0	0	1
PTGTIN	Petling Tin Berhad	pr	0	0	0	0	0
RESORT	Resorts World Berhad	ts	2.33	0	0	0	2.33
RHB	RHB Capital Berhad	f	2	0	2	0	4

ROADBLD	Road Builder Holdings (M) Berhad	cn	2	0	0	0	2
RVIEW	Reverview Rubber Estates Berhad	pl	1	0	0	0	1
SAB	Southern Acids(M) Berhad	ip	2	0	1	0	3
SAPURA	Sapura Telecommunications Berhad	tech	1.5	0	0	0	1.5
SBAGAN	Sungai Bagan Rubber Co (M) Berhad	pl	2	0	0	0	2
SBANK	Southtern Bank Berhad	f	0	2	0	2	4
SDRED	Selangor Dredging Berhad	pr	1	0	0	0	1
SETIA	SP Setia Berhad	pr	2	0	0	0	2
SHANG	Shangrila Hotel (M) Berhad	htl	2	0	0	0	2
SHELL	Shell Refening Company (M) Berhad	ip	2	2.67	0	2.75	7.42
SHL	SHL Consolidated Berhad	pr	1	0	0	0	1
SIME	Sime Darby Berhad	ts	2.5	0	0	0	2.5
SIMEPTY	Sime UEP Properties Berhad	pr	2.5	1.5	1	0	5
SOP	Sarawak Oil Palms Berhad	pl	1.5	0	0	0	1.5
SPB	Selangor Properties Berhad	pr	0	0	0	0	0
SRAWAK	Sarawak Enterprise Corporation Behad	ts	2.5	0	0	0	2.5
SSTEEL	Southern Steel Berhad	ip	0	0	0	0	0
STAR	Star Publications Malaysia Berhad	ts	2.25	2.67	0	0	4.92
SUNCITY	Sunway City Berhad	pr	2	0	0	0	2
SUNRISE	Sunrise Berhad	pr	2.5	0	0	0	2.5
TA	Ta Interprise Berhad	f	2.5	0	0	0	2.5
TAANN	Ta Ann Holdings Behad	ip	1	0	0	0	1
TALAM	Talam Corporation Berhad	pr	2	2	0	0	4
TANJONG	Tanjong Public Limited Company	ts	2	2.33	0	2.5	6.83
TASEK	Tasek Corporation Berhad	ip	2	0	3	0	5
TCHONG	Tan Chong Motor Holdings Berhad	cp	2	0	0	0	2
TELKOM	Telekom Malaysia Berhad	ts	2.6	2.83	0	0	5.43
TENAGA	Tenaga Nasional Berhad	ts	2.67	2.5	2.5	2.25	9.92
TEXCHEM	Texchem resources Berhad	ts	0	0	0	0	0
THGROUP	TH Group Berhad	pl	2	0	0	2	4
TIME	Time Engineering Berhad	ts	2	2	0	0	4
TRACTOR	Tractors Malaysia Holdings Berhad	ip	0	0	0	0	0
TSH	TSH Resources Berhad	ip	2	0	0	0	2
TWS	TWS Berhad	cp	2.33	0	2.33	2.25	6.91
UAC	UAC Berhad	ip	2	0	3	0	5
UMLAND	United Malayan Land Berhad	pr	2.33	1.5	0	0	3.83
UMW	UMW Holdings Berhad	cp	3	2.75	2.5	2	10.25
UTDPLT	United Plations Berhad	pl	2.75	2.4	0	2.67	7.82
UWOOD	U-wood Holdings Berhad	pr	1.25	0	0	0	1.25
WCT	WCT Engineering Berhad	cn	2	0	0	0	2
WLDWIDE	Worldwidw Holdings Berhad	pr	2	1.67	0	2	5.67
WTK	WTK Holdings Berhad	ip	2	0	2.5	0	4.5
YHS	Yeo Hiap Seng Malaysia Berhad	cp	2	0	2	0	4
YTL	YTL Corporation Berhad	cn	2	0	0	0	2
YTLCMT	YTL Cement Berhad	ip	0	0	0	0	0
Year 2004							
ACPI	ACP Industries Berhad	ip	2	0	0	0	2
AFFIN	Affin Holdings Berhad	f	2	2.67	2	0	6.67
AIC	AIC Corporation Berhad	tech	2	0	2	0	4
AJI	Ajinamoto Malaysia Berhad	cp	2	2	0	0	4
ALCOM	Aluminium Company of Malaysia Bhd	ip	2.67	2.5	2.33	3	10.5

AM	A & M Realty Berhad	pr	0	0	0	0	0
AMMB	AMMB Holdings Berhad	f	2.5	2	3	3	10.5
AMWAY	Amway (Malaysia) Holding Berhad	ts	0	2.5	3	0	5.5
ANNJOO	Ann Joo Resources Berhad	ip	2	0	0	0	2
APOLLO	Apollo Food Holdings berhad	cp	0	0	0	0	0
ASIAFILE	Asia File Corporation Berhad	cp	0	0	2.5	0	2.5
ASIATIC	Asiatic Development Berhad	pl	2.33	2	2	2.67	9
AVENUE	Avenue Asset Berhad	f	1	0	0	0	1
BAT	British American Tobacco (M) Berhad	cp	2.33	3	2	0	7.33
BCB	BCB Berhad	pr	0	0	2	2	4
BJCAP	Berjaya Capital Berhad	f	2	0	2	0	4
BJGROUP	Berjaya Group Berhad	ts	0	0	0	0	0
BJLAND	Berjaya Land Berhad	ts	0	0	2	2	4
BJTTO	Berja Sports Toto Berhad	ts	0	3	0	0	3
BKAWN	Batu Kawan Berhad	pl	2	0	0	0	2
BOLTON	Bolton Berhad	pr	2	0	0	2	4
BRAYA	Bandaraya Developments Berhad	pr	0	0	2	2	4
BSTEAD	Boustead Holdings Berhad	ts	2.33	2.33	2	0	6.66
CAMERLIN	Camerlin Group	ip	0	0	0	0	0
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	2	2	0	0	4
CHHB	Country Heights Holding Berhad	pr	2	0	0	0	2
CHINTEK	Chin Teck Plations Berhad	pl	3	0	0	0	3
CIMA	Cement Industries of Malaysia Berhad	ip	2	0	0	0	2
CMSB	Cahaya Mata Sarawak Berhad	f	2.33	2.33	3	0	7.66
COMMER	Commerce	f	n/a	n/a	n/a	n/a	n/a
COSWAY	Cosway Corporation Berhad	cp	0	2	0	0	2
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	1	0	0	0	1
DAIMAN	Daiman Developments Berhad	pr	1	0	0	0	1
DIALOG	Dialog Group Berhad	ts	3	0	0	0	3
DIJACOR	Dijaya Corporation Brhad	pr	2	0	0	2	4
DLADY	Dutch Lady Milk Industries Berhad	cp	0	0	0	0	0
DLLOYD	Delloyd Ventures Berhad	ip	1	0	0	0	1
DNP	DNP Holdings Berhad	cp	2	0	0	0	2
DRHBCOM	DRB-Hicom Berhad	ip	2	2	0	0	4
EKOVEST	Ekovest Berhad	cn	2	0	0	0	2
EKRAN	Ekran Berhad	pr	0	0	0	0	0
EKSONS	Eksons Corporation Berhad	ip	0	3	0	0	3
ENG	Eng Teknologi Holdings Berhad	tech	2	0	0	0	2
EO	Eastern Oriental Berhad	pr	3	0	0	0	3
EON	Edaran Otomobil Nasional Berhad	ts	3	3	0	2.5	8.5
EPIC	Eastern Pasific Industrial Co Berhad	ts	0	0	2	0	2
ESSO	Esso Malaysia Berhad	ip	2.5	0	0	0	2.5
FACBRES	Facb Resorts Berhad	pr	n/a	n/a	n/a	n/a	n/a
FAREAST	Far East Holdings Berhad	pl	2	0	0	0	2
FFM	FFM Berhad	cp	n/a	n/a	n/a	n/a	n/a
FN	Fraser & Neave Holdings Berhad	cp	0	2	0	0	2
FORMIS	Formosa Prosonic Industries Berhad	ts	0	0	0	0	0
FPI	Formis Malaysia Berhad	cp	2	0	0	0	2
GAMUDA	Gamuda Berhad	cn	0	0	0	3	3
GCORP	General Corporation Berhad	cn	1	0	0	0	1
GHOPE	Golden Hope Plantitions Berhad	pl	2.33	2.25	2.5	2	9.08

GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	0	0	0	0	0
GPERAK	Gula Perak Berhad	htl	0	0	0	0	0
GTING	Genting Berhad	ts	2.25	3	3	2	10.25
GUH	Grand United Holding Berhad	ip	0	0	0	0	0
GUINES	Guiness Anchor Berhad	cp	0	2	0	0	2
HALIM	HalimMazmin Berhad	ts	0	0	0	0	0
HAPSNG	Hang Seng Consolidated Berhad	ts	3	0	0	0	3
HDBS	Hwang - DBS (Malaysia) Berhad	f	2	0	0	0	2
HL	Highland & Lowland Berhad	pl	2	2.5	2	3	9.5
HLBANK	Hong Leong bank Berhad	f	2	2	0	0	4
HLIND	Hong Leong Industries Berhad	cp	1	0	0	0	1
HSL	Hock Seen Lee Berhad	cn	2	2	1	2	7
HUMEIND	Hume Industries (Malaysia) Berhad	ip	3	0	0	0	3
HUOJOO	Hua Joo Seng Interprise Berhad	cp	n/a	n/a	n/a	n/a	n/a
HWGB	Ho Wa Genting Berhad	ip	2	0	0	0	2
ICP	Industrial Concrete Products Berhad	ip	3	0	0	0	3
IGB	IGB Berhad	pr	2	0	0	0	2
IJM	IJM Corporation Berhad	cn	2	1.5	0	0	3.5
INSAS	Insas Berhad	f	0	0	0	0	0
INTI	Inti Universal Holdings Berhad	ts	3	0	0	0	3
IOICORP	IOI Corporation Berhad	pl	0	2.8	0	0	2.8
IOIPROP	IOI Properties Berhad	pr	0	0	0	2	2
IP	Island & Peninsular Berhad	pr	2.33	2	0	0	4.33
JERNEH	Jerneh Asia Berhad	f	2	0	0	0	2
JOHPORT	Johor Port Berhad	ts	2	0	0	0	2
JTIASA	Jaya Tiasa Holdings Berhad	ip	0	0	0	0	0
JTINTER	JT International Berhad	cp	2	2.5	3	0	7.5
JUSCO	Jaya Jusco Stores Berhad	ts	2	2	0	0	4
KEMAS	Kumpulan Emas Berhad	ts	2	0	0	0	2
KENANGA	K & N Kenanga Holdings Berhad	f	3	0	0	0	3
KFC	KFC Holdings (Malaysia) Berhad	ts	2	2	0	0	4
KFIMA	Kumpulan FIMA Berhad	f	1	0	0	0	1
KIANJOO	Kian Joo Can Factory Berhad	ip	3	0	0	0	3
KILHALL	Killinghall Malaysia Berhad	f	1	0	0	0	1
KIMHIN	Kim Hin Industry Berhad	ip	2	0	0	0	2
KLK	Kuala Lumpur Kepong Berhad	pl	2	0	2	2	6
KLUANG	Kluan Rubber Company (M) Berhad	pl	0	0	0	0	0
KONSORT	Konsortium Logistik Berhad	ts	2	0	0	0	2
KPJ	KPJ Healthcare Berhad	ts	2	2.33	3	0	7.33
KSENG	Keck Seng (Malaysia) Berhad	ip	0	0	0	0	0
KULIM	Kulim (Malaysia) Berhad	pl	2.33	2	2	3	9.33
KWANTAS	Kwantas Corporation Berhad	pl	0	0	0	0	0
LANDMRK	Lanmarks Berhad	htl	0	0	0	0	0
LEADER	Leader Universal Holdings Berhad	ip	0	0	0	0	0
LINGUI	Lingui Development Berhad	ip	2	0	0	3	5
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	2.5	2	0	0	4.5
LPF	Ladang Perbadanan FIMA Berhad	pl	2	0	0	2	4
LPI	LPI Holdings Berhad	f	2	0	0	0	2
MAA	MAA Holdings Berhad	f	2	3	2	0	7
MAGNUM	Magnum Corporation Berhad	ts	2	3	0	0	5
MALAKOF	Malakoff Berhad	ts	2	0	0	0	2

MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	n/a	n/a	n/a	n/a	n/a
MAS	Malaysian Airline System Berhad	ts	2	2	2	0	6
MAYBANK	Malayan Bank Berhad	f	3	2.33	2.5	0	7.83
MBMR	MBM Resources Berhad	ts	3	3	0	0	6
METACOR	Metacorp berhad	ts	0	0	0	0	0
METROK	Metro Kajang Holdings Berhad	pr	0	0	0	0	0
MFCB	Mega First Corporation Berhad	ts	0	0	0	0	0
MFLOUR	Malayan Flours Mills Berhad	cp	3	0	0	0	3
MIDF	Malaysian Industrial Development Bhd	f	2	2	0	0	4
MKLAND	MK Land Berhad	pr	0	0	0	0	0
MNI	MNI Holdings Berhad	f	0	0	0	0	0
MNRB	Malaysian National Reinsurance Berhad	f	2.5	2.75	0	0	5.25
MOX	Malaysian Oxigen Berhad	ip	2.5	0	0	0	2.5
MPI	Malaysian Pacific Industries Berhad	tech	2	0	0	0	2
MRCB	Malaysian Resources Corporation Bhd	ts	0	0	0	0	0
MSC	Malaysia Smelting Corporate Berhad	ip	2.5	2.5	2	2.5	9.5
MTD	MTD Capital Berhad	cn	0	0	0	0	0
MUDA	Muda Holdings Berhad	ip	0	0	0	0	0
MUIPROP	MUI Properties Berhad	pr	0	0	0	0	0
MULPHA	Mulpha International Berhad	ts	0	0	0	0	0
NALURI	Naluri Berhad	ts	0	0	0	0	0
NANYANG	Nanyang Press Holdings Berhad	ts	3	2	0	0	5
NCB	NCB Holding Berhad	ts	2	0	0	0	2
NEGARA	Negara Properties (M) Berhad	pr	0	0	2	0	2
NESTLE	Nestle Malaysia Berhad	cp	2	0	0	2	4
NSOP	Negri Sembilan Oil Palms Berhad	pl	3	0	0	0	3
ORIENT	Oriental Holdings Berhad	cp	0	0	0	0	0
OSK	OSK Holdings Berhad	f	3	0	0	0	3
OYL	OYL Industries Berhad	cp	2.5	0	0	0	2.5
PACMAS	PacificMas Berhad	f	0	0	0	0	0
PALMC	Palmco Holding Berhad	ip	1.67	0	0	0	1.67
PANTAI	Pantai Holdings Berhad	ts	2	2	0	0	4
PARAMOUNT	Paramount Corporation Berhad	pr	2	3	0	0	5
PBBANK	Public Bank Berhad	f	2.5	2.5	2	2	9
PELANGI	Pelangi Berhad	pr	0	0	0	0	0
PETDAG	Petronas Dagangan Berhad	ts	2	2.67	0	0	4.67
PETGAS	Petronas Gas Berhad	ip	2.5	3	0	0	5.5
PGARDEN	Petaling Garden Berhad	pr	2	0	0	0	2
PJDEV	PJ Development Holdings Berhad	cn	0	0	0	0	0
PMCORP	Pan Malaysia Corporation Berhad	ip	0	0	0	0	0
PMIND	Pan Malaysia Industries Berhad	ts	0	0	0	0	0
PO	Pasific & Orient Berhad	f	2	0	0	0	2
PPB	PPB Group Berhad	cp	0	0	0	0	0
PROTON	Perusahaan Otomobil Nasional Berhad	cp	n/a	n/a	n/a	n/a	n/a
PSCI	PSC Industries Berhad	ip	0	0	0	0	0
PTGTIN	Petling Tin Berhad	pr	0	0	0	0	0
RESORT	Resorts World Berhad	ts	2.5	3	3	0	8.5
RHB	RHB Capital Berhad	f	2	2.5	2.5	0	7
ROADBLD	Road Builder Holdings (M) Berhad	cn	2.6	2.5	2	0	7.1
RVIEW	Reverview Rubber Estates Berhad	pl	0	0	0	0	0

SAB	Southern Acids(M) Berhad	ip	3	0	0	0	3
SAPURA	Sapura Telecommunications Berhad	tech	0	0	0	0	0
SBAGAN	Sungai Bagan Rubber Co (M) Berhad	pl	0	0	0	0	0
SBANK	Southtern Bank Berhad	f	0	2.5	0	3	5.5
SDRED	Selangor Dredging Berhad	pr	0	0	0	0	0
SETIA	SP Setia Berhad	pr	2.67	2.67	2	2.5	9.84
SHANG	Shangrila Hotel (M) Berhad	htl	0	0	0	0	0
SHELL	Shell Refening Company (M) Berhad	ip	2.5	2	3	2	9.5
SHL	SHL Consolidated Berhad	pr	0	0	0	0	0
SIME	Sime Darby Berhad	ts	2	2	2	0	6
SIMEPTY	Sime UEP Properties Berhad	pr	0	0	0	0	0
SOP	Sarawak Oil Palms Berhad	pl	2	0	2	0	4
SPB	Selangor Properties Berhad	pr	0	0	0	0	0
SRAWAK	Sarawak Enterprise Corporation Behad	ts	0	0	0	0	0
SSTEEL	Southern Steel Berhad	ip	0	0	0	0	0
STAR	Star Publications Malaysia Berhad	ts	2.25	2.75	2	0	7
SUNCITY	Sunway City Berhad	pr	3	0	0	0	3
SUNRISE	Sunrise Berhad	pr	2.33	0	0	0	2.33
TA	Ta Interprise Berhad	f	2	0	0	0	2
TAANN	Ta Ann Holdings Behad	ip	3	0	0	0	3
TALAM	Talam Corporation Berhad	pr	2	3	0	0	5
TANJONG	Tanjong Public Limited Company	ts	2.33	2.33	0	2	6.66
TASEK	Tasek Corporation Berhad	ip	0	0	0	0	0
TCHONG	Tan Chong Motor Holdings Berhad	cp	0	0	0	0	0
TELKOM	Telekom Malaysia Berhad	ts	2	3	0	0	5
TENAGA	Tenaga Nasional Berhad	ts	2.22	2.33	2	2	8.55
TEXCHEM	Texchem resources Berhad	ts	0	0	0	0	0
THGROUP	TH Group Berhad	pl	3	3	0	0	6
TIME	Time Engineering Berhad	ts	2	2.33	0	0	4.33
TRACTOR	Tractors Malaysia Holdings Berhad	ip	2	0	0	0	2
TSH	TSH Resources Berhad	ip	2.5	2.5	2.5	3	10.5
TWS	TWS Berhad	cp	2	3	2	0	7
UAC	UAC Berhad	ip	3	0	0	0	3
UMLAND	United Malayan Land Berhad	pr	1	0	0	0	1
UMW	UMW Holdings Berhad	cp	3	0	0	0	3
UTDPLT	United Plations Berhad	pl	2.5	0	2	2	6.5
UWOOD	U-wood Holdings Berhad	pr	0	0	0	0	0
WCT	WCT Engineering Berhad	cn	0	0	2	0	2
WLDWIDE	Worldwidw Holdings Berhad	pr	2	2.5	0	0	4.5
WTK	WTK Holdings Berhad	ip	2	0	0	0	2
YHS	Yeo Hiap Seng Malaysia Berhad	cp	2	0	0	0	2
YTL	YTL Corporation Berhad	cn	2	0	0	0	2
YTLCMT	YTL Cement Berhad	ip	2	0	0	0	2
Year 2005							
ACPI	ACP Industries Berhad	ip	2	0	0	0	2
AFFIN	Affin Holdings Berhad	f	2.5	2.5	2	0	7
AIC	AIC Corporation Berhad	tech	2	0	2	0	4
AJI	Ajinamoto Malaysia Berhad	cp	2	3	2	0	7
ALCOM	Aluminium Company of Malaysia Bhd	ip	2.33	2.33	2.5	2	9.16
AM	A & M Realty Berhad	pr	0	0	0	0	0
AMMB	AMMB Holdings Berhad	f	2.67	2.6	3	2	10.27

AMWAY	Amway (Malaysia) Holding Berhad	ts	0	2.67	3	0	5.67
ANNJOO	Ann Joo Resources Berhad	ip	0	0	0	0	0
APOLLO	Apollo Food Holdings berhad	cp	0	0	0	0	0
ASIAFILE	Asia File Corporation Berhad	cp	2	0	0	0	2
ASIATIC	Asiatic Development Berhad	pl	2.5	2.5	2	3	10
AVENUE	Avenue Asset Berhad	f	2	0	0	0	2
BAT	British American Tobacco (M) Berhad	cp	2	2	0	2	6
BCB	BCB Berhad	pr	2	0	2	2	6
BJCAP	Berjaya Capital Berhad	f	0	0	2	0	2
BJGROUP	Berjaya Group Berhad	ts	0	0	0	0	0
BJLAND	Berjaya Land Berhad	ts	1	0	2	2	5
BJTTO	Berja Sports Toto Berhad	ts	0	3	2	0	5
BKAWN	Batu Kawan Berhad	pl	1	0	0	0	1
BOLTON	Bolton Berhad	pr	0	0	0	0	0
BRAYA	Bandaraya Developments Berhad	pr	0	0	2	2	4
BSTEAD	Boustead Holdings Berhad	ts	2.33	2.67	2.5	0	7.5
CAMERLIN	Camerlin Group	ip	n/a	n/a	n/a	n/a	n/a
CARLSBG	Carlsberg Brewery Malaysia Berhad	cp	0	2.67	0	0	2.67
CHHB	Country Heights Holding Berhad	pr	2	0	2	2	6
CHINTEK	Chin Teck Plations Berhad	pl	3	0	0	0	3
CIMA	Cement Industries of Malaysia Berhad	ip	1.5	0	0	0	1.5
CMSB	Cahaya Mata Sarawak Berhad	f	2	2.67	2	3	9.67
COMMER	Commerce	f	n/a	n/a	n/a	n/a	n/a
COSWAY	Cosway Corporation Berhad	cp	2	0	0	0	2
DAIHWA	Dai Hwa Holdings (M) Berhad	cp	2	0	0	0	2
DAIMAN	Daiman Developments Berhad	pr	2.5	0	0	0	2.5
DIALOG	Dialog Group Berhad	ts	2.5	2	3	0	7.5
DIJACOR	Dijaya Corporation Brhad	pr	2	0	0	2	4
DLADY	Dutch Lady Milk Industries Berhad	cp	0	0	0	0	0
DLLOYD	Delloyd Ventures Berhad	ip	1	0	0	0	1
DNP	DNP Holdings Berhad	cp	2	0	0	0	2
DRHBCOM	DRB-Hicom Berhad	ip	1.67	0	0	2	3.67
EKOVEST	Ekovest Berhad	cn	2	0	0	0	2
EKRAN	Ekran Berhad	pr	0	0	0	0	0
EKSONS	Eksons Corporation Berhad	ip	0	0	0	0	0
ENG	Eng Teknologi Holdings Berhad	tech	3	0	0	0	3
EO	Eastern Oriental Berhad	pr	2	0	0	0	2
EON	Edaran Otomobil Nasional Berhad	ts	2.33	2.33	0	2	6.66
EPIC	Eastern Pasific Industrial Co Berhad	ts	2	0	0	0	2
ESSO	Esso Malaysia Berhad	ip	2	0	0	0	2
FACBRES	Facb Resorts Berhad	pr	n/a	n/a	n/a	n/a	n/a
FAREAST	Far East Holdings Berhad	pl	3	0	2	0	5
FFM	FFM Berhad	cp	n/a	n/a	n/a	n/a	n/a
FN	Fraser & Neave Holdings Berhad	cp	0	3	0	0	3
FORMIS	Formosa Prosonic Industries Berhad	ts	0	0	0	0	0
FPI	Formis Malaysia Berhad	cp	3	0	0	0	3
GAMUDA	Gamuda Berhad	cn	3	0	0	2.5	5.5
GCORP	General Corporation Berhad	cn	1	0	0	0	1
GHOPE	Golden Hope Plantitions Berhad	pl	2.67	2.5	3	2.67	10.84
GNEALY	Gnealy Plantations (Malaysia) Berhad	pl	1.5	0	0	0	1.5
GPERAK	Gula Perak Berhad	htl	0	0	0	0	0

GTING	Genting Berhad	ts	1	3	0	0	4
GUH	Grand United Holding Berhad	ip	2	0	0	0	2
GUINES	Guiness Anchor Berhad	cp	2	3	2	2	9
HALIM	HalimMazmin Berhad	ts	0	0	0	0	0
HAPSNG	Hang Seng Consolidated Berhad	ts	3	0	0	0	3
HDBS	Hwang - DBS (Malaysia) Berhad	f	2	0	0	0	2
HL	Highland & Lowland Berhad	pl	2.67	2	2.67	2	9.34
HLBANK	Hong Leong bank Berhad	f	2.33	2	2	2	8.33
HLIND	Hong Leong Industries Berhad	cp	2	0	0	0	2
HSL	Hock Seen Lee Berhad	cn	2	1.67	1.5	1.5	6.67
HUMEIND	Hume Industries (Malaysia) Berhad	ip	3	0	0	0	3
HUOJOO	Hua Joo Seng Interprise Berhad	cp	n/a	n/a	n/a	n/a	n/a
HWGB	Ho Wa Genting Berhad	ip	2	0	0	0	2
ICP	Industrial Concrete Products Berhad	ip	3	0	0	0	3
IGB	IGB Berhad	pr	2	0	0	0	2
IJM	IJM Corporation Berhad	cn	2.83	3	3	2.75	11.58
INSAS	Insas Berhad	f	0	0	0	0	0
INTI	Inti Universal Holdings Berhad	ts	0	3	0	0	3
IOICORP	IOI Corporation Berhad	pl	2	2.75	2	3	9.75
IOIPROP	IOI Properties Berhad	pr	0	3	0	0	3
IP	Island & Peninsular Berhad	pr	2.5	2.5	2.5	2	9.5
JERNEH	Jerneh Asia Berhad	f	3	0	0	0	3
JOHPORT	Johor Port Berhad	ts	n/a	n/a	n/a	n/a	n/a
JTIASA	Jaya Tiasa Holdings Berhad	ip	0	0	0	0	0
JTINTER	JT International Berhad	cp	2	2	0	2	6
JUSCO	Jaya Jusco Stores Berhad	ts	n/a	n/a	n/a	n/a	n/a
KEMAS	Kumpulan Emas Berhad	ts	2	0	0	0	2
KENANGA	K & N Kenanga Holdings Berhad	f	0	0	0	0	0
KFC	KFC Holdings (Malaysia) Berhad	ts	2	2	2	0	6
KFIMA	Kumpulan FIMA Berhad	f	0	0	0	0	0
KIANJOO	Kian Joo Can Factory Berhad	ip	3	0	0	0	3
KILHALL	Killinghall Malaysia Berhad	f	0	0	0	0	0
KIMHIN	Kim Hin Industry Berhad	ip	2	0	0	0	2
KLK	Kuala Lumpur Kepong Berhad	pl	2	2	2	0	6
KLUANG	Kluan Rubber Company (M) Berhad	pl	0	0	0	0	0
KONSORT	Konsortium Logistik Berhad	ts	0	0	0	0	0
KPJ	KPJ Healthcare Berhad	ts	2	0	2	0	4
KSENG	Keck Seng (Malaysia) Berhad	ip	0	0	0	0	0
KULIM	Kulim (Malaysia) Berhad	pl	2.67	2.6	2	2.67	9.94
KWANTAS	Kwantas Corporation Berhad	pl	2.5	0	0	0	2.5
LANDMRK	Lanmarks Berhad	htl	2	0	0	0	2
LEADER	Leader Universal Holdings Berhad	ip	1.5	0	0	0	1.5
LINGUI	Lingui Development Berhad	ip	1.5	0	2.5	2.33	6.33
LITRAK	Lingkaran Trans Kota Holdings Berhad	infr	2.5	2	0	0	4.5
LPF	Ladang Perbadanan FIMA Berhad	pl	1	2	0	2	5
LPI	LPI Holdings Berhad	f	2.33	0	2	0	4.33
MAA	MAA Holdings Berhad	f	0	2.5	2	0	4.5
MAGNUM	Magnum Corporation Berhad	ts	2.5	2.25	0	0	4.75
MALAKOF	Malakoff Berhad	ts	2	0	0	0	2
MARUICHI	Maruichi Malaysia Stell Tube Berhad	ip	n/a	n/a	n/a	n/a	n/a
MAS	Malaysian Airline System Berhad	ts	0	0	0	0	0

MAYBANK	Malayan Bank Berhad	f	3	3	3	3	12
MBMR	MBM Resources Berhad	ts	0	0	0	0	0
METACOR	Metacorp berhad	ts	0	0	0	0	0
METROK	Metro Kajang Holdings Berhad	pr	2	0	0	0	2
MFCB	Mega First Corporation Berhad	ts	0	0	0	0	0
MFLOUR	Malayan Flours Mills Berhad	cp	3	0	0	0	3
MIDF	Malaysian Industrial Development Bhd	f	2.5	3	3	0	8.5
MKLAND	MK Land Berhad	pr	0	0	0	0	0
MNI	MNI Holdings Berhad	f	0	0	0	0	0
MNRB	Malaysian National Reinsurance Berhad	f	3	2	0	0	5
MOX	Malaysian Oxigen Berhad	ip	2.5	0	0	0	2.5
MPI	Malaysian Pacific Industries Berhad	tech	2	0	0	0	2
MRCB	Malaysian Resources Corporation Bhd	ts	2	0	0	0	2
MSC	Malaysia Smelting Corporate Berhad	ip	2	2.5	0	0	4.5
MTD	MTD Capital Berhad	cn	0	3	0	0	3
MUDA	Muda Holdings Berhad	ip	2	0	0	0	2
MUIPROP	MUI Properties Berhad	pr	0	0	0	0	0
MULPHA	Mulpha International Berhad	ts	0	0	2.67	0	2.67
NALURI	Naluri Berhad	ts	0	0	0	0	0
NANYANG	Nanyang Press Holdings Berhad	ts	2	3	3	0	8
NCB	NCB Holding Berhad	ts	2	2.33	0	0	4.33
NEGARA	Negara Properties (M) Berhad	pr	2	0	0	2	4
NESTLE	Nestle Malaysia Berhad	cp	2.5	2.67	2	2.33	9.5
NSOP	Negri Sembilan Oil Palms Berhad	pl	3	0	0	0	3
ORIENT	Oriental Holdings Berhad	cp	0	0	0	0	0
OSK	OSK Holdings Berhad	f	3	0	0	0	3
OYL	OYL Industries Berhad	cp	2	0	3	0	5
PACMAS	PacificMas Berhad	f	0	0	0	0	0
PALMC	Palmco Holding Berhad	ip	1.67	0	0	0	1.67
PANTAI	Pantai Holdings Berhad	ts	2	2.5	2	2	8.5
PARAMOUNT	Paramount Corporation Berhad	pr	2	2.5	0	2	6.5
PBBANK	Public Bank Berhad	f	2.5	2.75	0	3	8.25
PELANGI	Pelangi Berhad	pr	0	0	0	0	0
PETDAG	Petronas Dagangan Berhad	ts	2	2.67	2	0	6.67
PETGAS	Petronas Gas Berhad	ip	2	2.33	0	0	4.33
PGARDEN	Petaling Garden Berhad	pr	2	2.5	0	0	4.5
PJDEV	PJ Development Holdings Berhad	cn	3	0	0	0	3
PMCORP	Pan Malaysia Corporation Berhad	ip	0	0	0	0	0
PMIND	Pan Malaysia Industries Berhad	ts	0	0	1	0	1
PO	Pasific & Orient Berhad	f	2	0	0	0	2
PPB	PPB Group Berhad	cp	0	0	0	0	0
PROTON	Perusahaan Otomobil Nasional Berhad	cp	n/a	n/a	n/a	n/a	n/a
PSCI	PSC Industries Berhad	ip	0	0	0	0	0
PTGTIN	Petling Tin Berhad	pr	0	0	0	0	0
RESORT	Resorts World Berhad	ts	2.75	3	3	0	8.75
RHB	RHB Capital Berhad	f	2	3	0	0	5
ROADBLD	Road Builder Holdings (M) Berhad	cn	0	2.5	3	0	5.5
RVIEW	Reverview Rubber Estates Berhad	pl	1	0	0	0	1
SAB	Southern Acids(M) Berhad	ip	0	0	2	0	2
SAPURA	Sapura Telecommunications Berhad	tech	n/a	n/a	n/a	n/a	n/a

SBAGAN	Sungai Bagan Rubber Co (M) Berhad	pl	0	0	0	0	0
SBANK	Southtern Bank Berhad	f	3	0	0	0	3
SDRED	Selangor Dredging Berhad	pr	0	0	0	0	0
SETIA	SP Setia Berhad	pr	3	0	0	0	3
SHANG	Shangrila Hotel (M) Berhad	htl	3	0	0	0	3
SHELL	Shell Refening Company (M) Berhad	ip	2.6	2.33	3	2.67	10.6
SHL	SHL Consolidated Berhad	pr	0	0	0	0	0
SIME	Sime Darby Berhad	ts	2.25	2.25	2	0	6.5
SIMEPTY	Sime UEP Properties Berhad	pr	2.33	2	2	0	6.33
SOP	Sarawak Oil Palms Berhad	pl	2	0	2	0	4
SPB	Selangor Properties Berhad	pr	0	0	0	0	0
SRAWAK	Sarawak Enterprise Corporation Behad	ts	0	0	0	0	0
SSTEEL	Southern Steel Berhad	ip	0	0	0	0	0
STAR	Star Publications Malaysia Berhad	ts	2.5	2.6	3	0	8.1
SUNCITY	Sunway City Berhad	pr	n/a	n/a	n/a	n/a	n/a
SUNRISE	Sunrise Berhad	pr	2	2.5	0	0	4.5
TA	Ta Interprise Berhad	f	0	3	0	0	3
TAANN	Ta Ann Holdings Behad	ip	3	0	0	0	3
TALAM	Talam Corporation Berhad	pr	2	0	0	0	2
TANJONG	Tanjong Public Limited Company	ts	1.75	2.75	0	2	6.5
TASEK	Tasek Corporation Berhad	ip	0	0	0	0	0
TCHONG	Tan Chong Motor Holdings Berhad	cp	0	0	0	0	0
TELKOM	Telekom Malaysia Berhad	ts	3	3	2	0	8
TENAGA	Tenaga Nasional Berhad	ts	3	3	2	0	8
TEXCHEM	Texchem resources Berhad	ts	0	0	0	0	0
THGROUP	TH Group Berhad	pl	2	2.5	0	0	4.5
TIME	Time Engineering Berhad	ts	1	2.75	0	0	3.75
TRACTOR	Tractors Malaysia Holdings Berhad	ip	2	0	0	0	2
TSH	TSH Resources Berhad	ip	2	2.5	3	3	10.5
TWS	TWS Berhad	cp	1.67	2.67	0	3	7.34
UAC	UAC Berhad	ip	0	0	0	2	2
UMLAND	United Malayan Land Berhad	pr	2	0	0	0	2
UMW	UMW Holdings Berhad	cp	2	2.5	2	2	8.5
UTDPLT	United Plations Berhad	pl	1	2	2	2	7
UWOOD	U-wood Holdings Berhad	pr	0	0	0	0	0
WCT	WCT Engineering Berhad	cn	3	0	0	0	3
WLDWIDE	Worldwidw Holdings Berhad	pr	1	0	0	0	1
WTK	WTK Holdings Berhad	ip	0	0	0	0	0
YHS	Yeo Hiap Seng Malaysia Berhad	cp	1.5	0	0	0	1.5
YTL	YTL Corporation Berhad	cn	2	0	0	0	2
YTLCMT	YTL Cement Berhad	ip	3	2.5	2	0	7.5

Notes: cn = Construction; cp = Consumer product; f = Finance; htl = Hotel; infr = Infrastructure; pl = Plantation; ip = Industrial products; pr = Property; tech = Technologies; ts = Trading and Services.

APENDIX B:

CONTENT OF ANALYSIS OF 32 PLCs IN MALAYSIA

No	Company name	Sector	1999		2000		2001		2002		2003		2004		2005		Overall	
			1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1	BAT(M) Berhad	CP	27	2	29	2	51	4	104	5	144	7	154	7	184	14	693	41
2	Proton Berhad	CP	13	1.5	15	2	20	2	16	2	43	3	n/a		n/a		107	10.5
3	Nestle Malaysia Berhad	CP	24	3	3	1	15	1	55	11	61	9	110	7	201	14	469	46
4	UMW Holdings Berhad	CP	3	0.5	57	4	64	7	74	6	68	4	83	6.5	9	6	358	34
5	F&N Holdings Berhad	CP	5	0.5	28	4	28	3	28	4	35	4	20	3	7	0.5	151	19
6	Ajinomoto Berhad	CP	4	0.25	4	0.25	7	0.50	8	0.5	15	1.25	20	2.0	24	2.2	82	6.95
7	Public Bank Berhad	F	31	5	24	3	36	4	55	5	12	2	185	22	203	24	546	65
8	Southtern Bank Berhad	F	5	0.25	20	1.75	41	3	10	2	15	2	17	2	21	2.5	129	13.5
9	Cahaya Mata Sarawak Brd	F	41	3	61	5	87	9	157	12	114	7	102	6	20	3	582	45
10	Malayan Bank Berhad	F	20	1	155	11	35	2.5	47	3.5	55	3	74	3.5	83	4	469	28.5
11	Tenaga Nasional Berhad	TS	29	3	33	3	35	4	52	5	83	6	134	15	94	7	460	43
12	Telekom Malaysia Berhad	TS	32	2	54	3	155	11	156	15	162	10	234	19	198	17	991	77
13	EON Berhad	TS	10	2	12	2	37	2	34	3	30	3	67	6	157	12	347	30
14	Star Publications Berhad	TS	56	9	73	10	95	12	68	8	83	7	126	12	148	19	649	77
15	KFC Holdings Berhad	TS	27	3	35	4	30	4	19	2	43	4	113	4.5	13	1.5	280	23
16	Dialog Group Berhad	TS	24	4	26	5	22	5	8	2	10	2	10	2	10	2	110	22
17	KPJ HealthCare Berhad	TS	89	5	98	5	79	5	84	6	98	6	128	9	42	2.5	609	38.5
18	DRB-HIKOM Berhad	IP	42	4	60	4	80	5	82	6	85	7	87	8	91	9	527	43
19	Shell Refening Co Bhd	IP	21	2.5	111	7	10	2	130	11	130	8	134	10	142	12	678	52.5
20	Aluminium Co of M Brh	IP	24	1.5	33	2.5	39	3	47	3.5	42	3.5	54	4	62	4.5	301	22.5
21	Gold Hope Plantation Bhd	PL	89	10	144	17	130	16	238	20	214	17	266	18	231	18	1272	116
22	Highland & Lowland Bhd	PL	32	3	51	5	67	5	128	8	128	9	131	11	142	13	679	54
23	United Plations Berhad	PL	20	2	26	3	28	5	40	7	49	6	52	6	61	7	276	36
24	Kulim (Malaysia) Berhad	PL	0	0	0	0	0	0	27	2	57	5	45	4	43	4	172	15
25	IOICORP	PL	11	1.25	31	2	16	2	16	2	18	1.5	18	1.5	19	1.5	129	11.75
26	SP Setia Berhad	PR	14	1	15	1	12	1	14	2	38	3	32	3	35	3	160	14
27	SIME UEP Propertis Brhad	PR	21	1.5	17	1.25	21	1.5	118	5	128	6	160	7.5	134	8	599	30.75
28	Paramount Corporation Br	PR	0	0	5	0.5	8	.75	20	1	26	2	32	2	42	3	133	9.25
29	Gamuda Berhad	CN	19	2	21	2	17	1	14	2	11	1	15	2	21	3	118	13
30	IJM Corporation Berhad	CN	8	1.5	10	2	122	11	167	11	150	11	144	11	154	12	755	59.5
31	Road Builder (M) Berhad	CN	9	1	10	2	27	3	46	8	83	14	86	14	98	15	359	57
32	Hock Seen Lee Berhad	CN	13	0.5	28	1.25	28	1.25	19	0.5	19	0.5	27	1.0	27	1.0	161	6

Notes: 1= Number of sentences, 2= Number of pages, CP=Consumer Product, F=Finance, TS=Trading and Services, IP=Industrial Product, PL=Plantations, PR=Properties, CN=Construction.

APPENDIX C:

Table C.1
Pooled OLS for CSR and Dimensions of CSR Disclosure on CFP

Variable	CSRD on CFP			Dimension of CSRD on CFP		
	Model 1.1 (ROA): Equation (4.6)	Model 1.2 (R*i*): Equation (4.6)	Model 1.3 (Q): Equation (4.6)	Model 2.1 (ROA): Equation (4.7	Model 2.2 (R*i*): Equation (4.7)	Model 2.3 (Q): Equation (4.7)
C	-0.6807**	-3.4459***	-3.7615***	-0.6532**	-3.3889***	-3.6696***
	(0.2925)	(0.2899)	(0.2320)	(0.2948)	(0.2978)	(0.2392)
CSRD	0.0256***	0.0305***	0.0035			
	(0.0088)	(0.0080)	(0.0074)			
MPLD				0.0550**	0.0451**	-0.0141
				(0.0241)	(0.0227)	(0.0195)
COMD				0.0610***	0.0722***	0.0405**
				(0.0232)	(0.0244)	(0.0195)
PROD				0.0025	-0.0031	0.0262
				(0.0234)	(0.0240)	(0.0189)
ENVD				-0.0242	0.0025	-0.0555**
				(0.0268)	(0.0236)	(0.0222)
BETA	-0.0669	-0.2536***	0.0292	-0.0707	-0.2594***	0.0214
	(4.49E-02)	(3.72E-02)	(0.0384)	(0.0452)	(0.0375)	(0.0383)
LEV	-5.08E-01**	-0.1395	0.7611***	-0.5171**	-0.1492	0.7514***
	(2.56E-01)	(1.07E-01)	(0.2670)	(0.2567)	(0.1073)	(0.2643)
SIZE	0.1872***	3.74E-01***	0.6211***	0.1835***	0.3692***	0.6156***
	(0.0323)	(3.26E-02)	(0.0260)	(0.0326)	(0.0327)	(0.0263)
SALES	-0.1609***	-0.1202***	-0.4167***	-0.1615***	-0.1200***	-0.4160***
	(0.0398)	(2.83E-02)	(0.0366)	(0.0397)	(0.0281)	(0.0367)
ATR	0.6238***	0.3144***	0.94617***	0.6239***	0.3126***	0.9520***
	(0.0736)	(4.67E-02)	(0.0686)	(0.0738)	(0.0466)	(0.0689)
EPS	5.25E-03***	4.44E-03***	0.0010**	0.0052***	0.0044***	0.0010**
	(9.25E-04)	(4.20E-04)	(0.0004)	(0.0009)	(0.0004)	(0.0004)
R^2	0.3343	0.3933	0.5457	0.3372	0.3955	0.5486
Adjusted R^2	0.3309	0.3907	0.5434	0.3323	0.3910	0.5453
F-statistic	98.4222***	126.9463***	235.4303***	69.6440***	89.4853***	166.4010***
DW-statistic	1.4741	0.7452	0.9871	1.4862	0.7456	1.0018

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) *p<0.10, **p<0.05, and ***p<0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observation is 1380.

Table C.2
Pooled OLS for CSRD and Dimensions of CSRD on IO

Variable	CSR on IO			Dimension of CSR on IO		
	Model 3.1 (INST): Equation (4.8	Model 3.2 (INST): Equation(4.8)	Model 3.3 (INST): Equation (4.8)	Model 4.1 (INST): Equation (4.9)	Model 4.2 (INST): Equation (4.9)	Model 4.3 (INST): Equation (4.9)
C	25.7781***	34.6855***	15.3245	19.6979**	28.7245***	9.3297
	(8.7377)	(9.3185)	(9.6387)	(8.8085)	(9.3615)	(9.5916)
CSRD	1.0254***	0.9390***	1.0215***			
	(0.3175)	(0.3183)	(0.3145)			
MPLD				2.8945***	2.7597***	2.8208***
				(0.7756)	(0.7806)	(0.7748)
COMD				-1.0564	-1.2762	-0.9735
				(0.8510)	(0.8415)	(0.8414)
PROD				3.2890***	3.2981***	3.3642***
				(0.8457)	(0.8399)	(0.8408)
ENVD				-1.2268	-1.2817	-1.3752
				(0.9926)	(0.9903)	(0.9850)
ROA	-0.5462			-0.5873		
	(0.9169)			(0.9079)		
Ri		2.4875***			2.5689***	
		(0.9505)			(0.9412)	
Q			-2.8780***			-2.9299***
			(1.0589)			(1.0481)
BETA	-11.5683***	-10.8907***	-11.4478***	-11.1115***	-10.3897***	-11.0073***
	(1.2426)	(1.2596)	(1.2354)	(1.2497)	(1.2682)	(1.2409)
LEV	2.7172	3.3373*	5.1850***	3.0214*	3.7035**	5.5266***
	(1.7520)	(1.7860)	(1.7470)	(1.7026)	(1.7291)	(1.7592)
SIZE	-0.7606	-1.7870**	0.9246	-0.3924	-1.4389	1.3035
	(0.8340)	(0.8808)	(1.0465)	(0.8383)	(0.8831)	(1.0375)
SALES	2.8202***	3.2007***	1.7089*	2.6846***	3.0794***	1.5607*
	(0.8027)	(0.8016)	(0.8783)	(0.7919)	(0.7905)	(0.8640)
ATR	-9.4891***	-10.6153***	-7.0620***	-9.0912***	-10.2930***	-6.6684***
	(1.6119)	(1.5292)	(1.7960)	(1.5915)	(1.5062)	(1.7573)
EPS	0.0090	-0.0050	0.0090	0.0106	-0.0039	0.0104
	(0.0153)	(0.0149)	(0.0139)	(0.0147)	(0.0144)	(0.0135)
R^2	0.1927	0.1970	0.1970	0.2061	0.2107	0.2105
Adjusted R^2	0.1874	0.1917	0.1917	0.1989	0.2035	0.2033
F-statistic	17.5072***	18.3933***	18.4064***	14.7613***	15.4686***	15.4491***
DW-statistic	1.0740	1.0931	1.0720	1.0703	1.0881	1.0691

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observation is 1380.

APPENDIX D:

Table D.1
GLS with Random Effects for CSRD and Dimensions of CSRD on CFP

Variables	CSR on CFP			Dimension of CSR on CFP		
	Model 1.1 (ROA): Equation (4.26)	Model 1.2 (R*i*): Equation (4.26)	Model 1.3 (Q): Equation (4.26)	Model 2.1 (ROA): Equation (4.27)	Model 2.2 (R*i*): Equation (4.27)	Model 2.3 (Q): Equation (4.27)
C	-0.2329***	-0.2653	-0.7147***	-0.2319***	-0.2540	-0.6580***
	(0.0796)	(0.2419)	(0.0801)	(0.0843)	(0.2426)	(0.0836)
CSRD	0.0252***	0.0059	0.0051			
	(0.0096)	(0.0070)	(0.0090)			
MPLD				0.0292	0.0125	-0.0368*
				(0.0222)	(0.0156)	(0.0202)
COMD				0.0500**	0.0277	0.0209
				(0.0246)	(0.0174)	(0.0255)
PROD				0.0066	-0.0219	0.0387*
				(0.0232)	(0.0160)	(0.0209)
ENVD				0.0136	0.0100	-0.0117
				(0.0291)	(0.0206)	(0.0265)
BETA	-0.0580	-0.0195	0.0551	-0.0627	-0.0244	0.0452
	(0.0447)	(0.0333)	(0.0420)	(0.0451)	(0.0337)	(0.0423)
LEV	-0.2950***	-0.0464	0.6085***	-0.3029***	-0.0523	0.6089***
	(0.0685)	(0.0495)	(0.0633)	(0.0687)	(0.0496)	(0.0634)
SIZE	2.04E-08**	4.77E-08***	1.11E-07***	2.03E-08**	4.79E-08***	1.10E-07***
	(8.61E-09)	(6.82E-09)	(8.44E-09)	(8.60E-09)	(6.82E-09)	(8.40E-09)
SALES	8.60E-08***	0.0067	-1.29E-07***	-8.66E-08***	0.0055	-1.30E-07***
	(1.82E-08)	(0.0190)	(1.81E-08)	(1.82E-08)	(0.0190)	(1.80E-08)
ATR	0.4995***	0.1340***	0.6092***	0.5006***	0.1361***	0.6041***
	(0.0534)	(0.0425)	(0.0522)	(0.0534)	(0.0426)	(0.0520)
EPS	0.0050***	0.0016***	3.47E-05	0.0050***	0.0016***	5.50E-05
	(3.75E-04)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0003)
R^2	0.5699	0.8035	0.6604	0.5691	0.8038	0.6599
Adjusted R^2	0.5677	0.8025	0.6586	0.5659	0.8024	0.6575
F-statistic	29.6442***	59.9851***	95.3955***	21.0863***	42.4384***	66.8673***
DW-statistic	1.7261	1.3313	1.4932	1.7249	1.3309	1.4941

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation; (iv) Number of observation is 1380.

Table D.2.
GLS with Random Effects for CSRD and Dimensions of CSRD on IO

Variable	CSR on IO			Dimension of CSR on IO		
	Model 3.1: Equation (4.28)	Model 3.2: Equation (4.28)	Model 3.3: Equation (4.28)	Model 4.1: Equation (4.29)	Model 4.2: Equation (4.29)	Model 4.3: Equation (4.29)
C	18.5397***	9.9976***	9.8236*	18.1183***	9.6411*	9.4377*
	(4.3730)	(5.3866)	(5.4085)	(4.3829)	(5.3934)	(5.4157)
CSRD	0.1441	0.1267	0.1263			
	(0.1131)	(0.1129)	(0.1130)			
MPLD				0.4060	0.3778	0.3776
				(0.2483)	(0.2481)	(0.2483)
COMD				-0.0578	-0.0849	-0.0885
				(0.2788)	(0.2785)	(0.2791)
PROD				0.2696	0.2662	0.2681
				(0.2540)	(0.2535)	(0.2538)
ENV				-0.1274	-0.1370	-0.1371
				(0.3281)	(0.3276)	(0.3279)
ROA	-0.6757**			-0.6729**		
	(0.3088)			(0.3089)		
Ri		1.60E-05			2.21E-05	
		(0.0006)			(0.0006)	
Q			-0.0529			-0.0616
			(0.2073)			(0.2077)
BETA	-1.2232**	1.2662**	-1.2636**	-1.1030**	-1.1450**	-1.1413**
	(0.5418)	(0.5419)	(0.5420)	(0.5483)	(0.5486)	(0.5487)
LEV	0.2970	-0.1321	-0.0247	-0.2685	-0.1008	0.0250
	(0.7974)	(0.7938)	(0.8973)	(0.7996)	(0.7962)	(0.9011)
SIZE	2.31E-07*	0.8299**	0.8683**	2.30E-07*	0.8227**	0.8673**
	(1.21E-07)	(0.3507)	(0.3783)	(1.21E-07)	(0.3509)	(0.3786)
SALES	0.2528	0.1130	0.0871	0.2527	0.1160	0.0859
	(0.3234)	(0.3376)	(0.3543)	(0.3236)	(0.3379)	(0.3545)
ATR	1.6605**	1.4409**	1.4701**	1.7075**	1.4856**	1.5193**
	(0.7199)	(0.7106)	(0.7210)	(0.7215)	(0.7123)	(0.7227)
EPS	0.0087*	0.0063	0.0062	0.0086*	0.0062	0.0062
	(0.0045)	(0.0043)	(0.0043)	(0.0045)	(0.0043)	(0.0043)
R^2	0.9202	0.9205	0.99204	0.9204	0.9206	0.9205
Adjusted R^2	0.9198	0.9201	0.9199	0.9197	0.9200	0.9198
F-statistic	22.2282***	21.5493***	21.9707***	19.4089***	18.9244***	19.2511***
DW-statistic	1.4436	1.4513	1.4500	1.4464	1.4534	1.4516

*Notes: (i) Figures in parentheses are standard errors robust to heteroscedasticity, (iii) * p < 0.10, ** p < 0.05, and *** p < 0.01,*
(ii) DW statistic is Durbin-Watson d test for autocorrelation, (iv) Number of observation is 1380.