

**Agency Costs of Multiple Directorships:
Toronto Stock Exchange – 2007-2008**

by

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PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF BUSINESS ADMINISTRATION

THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA

April 2010

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ABSTRACT

This paper is a treatment of the agency costs to shareholders potentially caused by multiple directorships in firms listed on the Toronto Stock Exchange. The sample set is comprised of the compulsory annual reports as extracted from the OSIRIS database service by Bureau van Dijk Electronic Publishing. The data is limited to partial annual reports for 2007 and 2008 in order to capture the collapse in the financial sector in the United States. A score of workload is assigned to over 14,000 reported director positions. The position data is then tallied and cross-referenced to produce information on board workload within a firm and the total workload those directors face. The governance score, the difference between those workloads, is intended to capture director workload external to the board. This is compared to a definition of agency cost using a log regression. Weakness in the initial results created a desire to apply another analytical tool – a comparison of averages using EViews. There appear to be effects of under-connected and over-connected boards of directors but the definition of agency cost seems to be insufficient.

TABLE OF CONTENTS

Abstract	ii
Table of Contents	iii
List of Tables	v
List of Figures	vii
1 Chapter One – Introduction	1
2 Chapter Two – Literature Review	2
2.1 Analysis of Literature	7
2.2 Synthesis of Literature	10
3 Chapter Three – Methodology	11
4 Chapter Four – Discussion of Empirical Results	14
4.1 Discussion of Logarithmic Regression	25
4.2 Sector to Sector Discussion	25
4.2.1 Sector Zero Discussion – Oil and Gas	26
4.2.2 Sector One Discussion – Basic Materials	29
4.2.3 Sector Two Discussion – Industrials	32
4.2.4 Sector Three Discussion – Oil and Gas	36
4.2.5 Sector Four Discussion – Oil and Gas	39
4.2.6 Sector Five Discussion – Oil and Gas	43
4.2.7 Sector Six Discussion – Oil and Gas	47
4.2.8 Sector Seven Discussion – Oil and Gas	50
4.2.9 Sector Eight Discussion – Oil and Gas	53
4.2.10 Sector Nine Discussion – Oil and Gas	56

LIST OF TABLES

Table 1: Sector Zero – Mean Board Scores and t-tests	26
Table 2: Sector Zero – Mean Firm Scores and t-tests	27
Table 3: Sector Zero – Mean Efficiencies and t-tests	28
Table 4: Sector One – Mean Board Scores and t-tests	30
Table 5: Sector One – Mean Firm Scores and t-tests	31
Table 6: Sector One – Mean Efficiencies and t-tests	32
Table 7: Sector Two – Mean Board Scores and t-tests	33
Table 8: Sector Two – Mean Firm Scores and t-tests	34
Table 9: Sector Two – Mean Efficiencies and t-tests	35
Table 10: Sector Three – Mean Board Scores and t-tests	36
Table 11: Sector Three – Mean Firm Scores and t-tests	37
Table 12: Sector Three – Mean Efficiencies and t-tests	38
Table 13: Sector Four – Mean Board Scores and t-tests	40
Table 14: Sector Four – Mean Firm Scores and t-tests	41
Table 15: Sector Four – Mean Efficiencies and t-tests	42
Table 16: Sector Five – Mean Board Scores and t-tests	44
Table 17: Sector Five – Mean Firm Scores and t-tests	45
Table 18: Sector Five – Mean Efficiencies and t-tests	46
Table 19: Sector Six – Mean Board Scores and t-tests	47
Table 20: Sector Six – Mean Firm Scores and t-tests	48
Table 21: Sector Six – Mean Efficiencies and t-tests	49
Table 22: Sector Seven – Mean Board Scores and t-tests	50

Table 23: Sector Seven – Mean Firm Scores and t-tests	51
Table 24: Sector Seven – Mean Efficiencies and t-tests	52
Table 25: Sector Eight – Mean Board Scores and t-tests	53
Table 26: Sector Eight – Mean Firm Scores and t-tests	54
Table 27: Sector Eight – Mean Efficiencies and t-tests	55
Table 25: Sector Nine – Mean Board Scores and t-tests	56
Table 26: Sector Nine – Mean Firm Scores and t-tests	57
Table 27: Sector Nine – Mean Efficiencies and t-tests	58

LIST OF FIGURES

Figure 1 – Sector Zero – Governance Score 2008 vs. Efficiency 2007	15
Figure 2 – Sector Zero – Governance Score 2008 vs. Efficiency 2008	15
Figure 3 – Sector One – Governance Score 2008 vs. Efficiency 2007	16
Figure 4 – Sector One – Governance Score 2008 vs. Efficiency 2008	16
Figure 5 – Sector Two – Governance Score 2008 vs. Efficiency 2007	17
Figure 6 – Sector Two – Governance Score 2008 vs. Efficiency 2008	17
Figure 7 – Sector Three – Governance Score 2008 vs. Efficiency 2007	18
Figure 8 – Sector Three – Governance Score 2008 vs. Efficiency 2008	18
Figure 9 – Sector Four – Governance Score 2008 vs. Efficiency 2007	19
Figure 10 – Sector Four – Governance Score 2008 vs. Efficiency 2008	19
Figure 11 – Sector Five – Governance Score 2008 vs. Efficiency 2007	20
Figure 12 – Sector Five – Governance Score 2008 vs. Efficiency 2008	20
Figure 13 – Sector Six – Governance Score 2008 vs. Efficiency 2007	21
Figure 14 – Sector Six – Governance Score 2008 vs. Efficiency 2008	21
Figure 15 – Sector Seven – Governance Score 2008 vs. Efficiency 2007	22
Figure 16 – Sector Seven – Governance Score 2008 vs. Efficiency 2008	22
Figure 17 – Sector Eight – Governance Score 2008 vs. Efficiency 2007	23
Figure 18 – Sector Eight – Governance Score 2008 vs. Efficiency 2008	23
Figure 19 – Sector Nine – Governance Score 2008 vs. Efficiency 2007	24
Figure 20 – Sector Nine – Governance Score 2008 vs. Efficiency 2008	24

ACKNOWLEDGEMENTS

I would like to thank the staff, faculty, instructors and directors of the MBA Program at UNBC. Their vision of Canada as a place of unending resources and resourcefulness, integrity and innovation, and struggle and triumph has been an inspiration to us all.

I would like to thank my extended family in Prince George for their patience and understanding as I undertake one of the most amazing challenges in my life. I would like to thank my aunt Wendy Redknap for family hospitality and for making me feel welcome. I would like to thank my cousin Jeff for our late night walks, long conversations, and all those times he was happy to help. I would like to thank my cousin Heather for being a leader in the Christian faith and for not being content with staying put or the status quo. I'd like to thank my late uncle H. Maurice Redknap for his example of entrepreneurship, rugged individualism and his hard fought struggles in life. God rest his soul.

I would like to thank my parents Joan and Phil Johnson. Thank you Mom, for being an impeccable example of motivation and for teaching us the importance of finding one's calling. Thank you Dad, for your endless ingenuity, your tenacity for solving problems, and your scientific curiosity; none of this could be possible without you.

I would like to thank my brother Orin Johnson for being the example of diligence, humility and responsibility that I have yet to live up to.

I would like to thank my sponsor Dr. Han Donker and his inspiring treatment of Corporate Governance and for shedding enough light on 'governance issues' to make them not only real and tangible, but ironic, dramatic and sometimes sensational as well.

I would like to thank my friends at home for giving me leave to travel, my past friends for hard lessons learned, and my new friends at UNBC for being the warmth of the north.

I would like to thank the staff and faculty new to the MBA program. Watching the changes within a growing business school has been inspiring; and to you, all the best.

CHAPTER ONE – INTRODUCTION

In corporate governance the role of the board of directors is actively researched and debated. The post-mortem collapse of Enron called increasing attention to the role of directors and the overall structure of the board. Some suggest that directors having multiple directorships in various firms maximize individual welfare and not the welfare (profits) of the firm. Shirking assigned duties and reduced supervision of midlevel management are thought to be the result. It is argued that a board member, “overboarded” (on too many other boards), has an adverse effect on firm performance. (Johnson, Daily and Ellstrand 1996; Nicholson and Kiel 2004). Conversely, there is an equally powerful argument that directors on more than one board “interlocking directors” bring immense benefits to the firm in terms of access to capital or to other resources. (Pfeffer and Salancik, 1978; Zahra and Pearce, 1989) Although there are limited studies on the relationship between multiple board membership and firm performance, (Selznick, 1949, Kiel and Nicholson, 2006) there is very little empirical work with regard to Canada. The present study contributes to the literature in the field.

The study is organized as follows: Chapter II reviews the literature on the subject. Chapter III discusses the database used in the study. Chapter IV presents the empirical results and Chapter V summarizes the conclusions.

CHAPTER TWO – LITERATURE REVIEW

Several pertinent journal articles discussing issues of agency cost, board interconnectedness, and bureaucratic power were surveyed and the review follows.

Jensen and Meckling's (1976) *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure* addressed ownership structure and looked for Pareto optimality of firms; an equivalent to a zero sum game. Early in the paper it is claimed that the theories of the authors help to explain ten issues in corporate governance. Of interest to us here is their second posit "...why [a manager's] failure to maximize the value of the firm is perfectly consistent with efficiency;" (Jensen and Meckling 1976) and their definition of "agency relationship" below. Jensen and Meckling (1976) define agency costs as the sum of:

- "(1) the monitoring expenditures by the principal,
- (2) the bonding expenditures by the agent,
- (3) the residual loss"

The authors felt that this was important to the point of discussing a theory of corporate ownership structure and they highlight critical variables with respect to ownership as well as debt structure. Regrettably Jensen and Meckling admit that as their article pressed on some of their mathematical functions "drawn in fig. 5 and several others discussed below [are] essentially an open question at this time." In their conclusion they mention the notion of "...statutory and common law and human ingenuity in devising contracts. Both the law and the sophistication of contracts relevant to the modern corporation are the products of a historical process in which there were strong incentives for individuals to

minimize agency costs.” They are referring to the co-evolutionary pressure where better shirkers make for better rules which in turn makes better shirkers.

Ang, Cole and Lin’s (2000) piece *Agency Costs and Ownership Structure* is an expansion on Jensen and Meckling’s (1976) “Zero agency cost firm”. The data set is approximately 1700 private firms from a Federal Reserve Board survey in the United States. They look for the relationship between the ownership structure and the agency cost. They apply two financial ratios from literature; “the expense ratio, which is operating expense scaled by annual sales, and the asset utilization ratio, which is annual sales divided by total assets.” (Ang, Cole, Lin 2000) Privately held firms are chosen for their study because manager ownership can range from 100% to 0% and aptly spans the data set. They further hypothesize:

- “i: agency costs are higher at firms whose managers own none of the firm’s equity,
- ii: agency costs are an inverse function of the managers’ ownership stake, and
- iii: agency costs are an increasing function of the number of non-manager shareholders.” (Ang, Cole, Lin 2000)

Ang, Cole and Lin found the following: “First, we find that agency costs are higher when an outsider manages the firm. Second, we find that agency costs vary inversely with the manager’s ownership share. Third, we find that agency costs increase with the number of nonmanager shareholders. Fourth, we also find that, to a lesser extent, external monitoring by banks produces a positive externality in the form of lower agency costs.” (Ang, Cole, Lin 2000)

Quantity versus Quality of Directors' Time: The Effectiveness of Directors and Number of Outside Directorships (Li & Ang 2000) sought to examine effects of the number of multiple directorships on merger and post-merger share price. Their premise was that expertise is more valuable than attention and that this is a reason why large boards can increase the value of a firm. Data was selected from 121 firms that had become merger targets from 1989-1993 (Li & Ang 2000). Director ownership information was extracted from the Lexis/Nexis database. The attention hypothesis and the expertise hypothesis were created. The attention hypothesis followed the popular opinion that directors with multiple directorships tend to be inefficient directors and cites several articles including a 1997 Business Week cover story. Li & Ang's expertise hypothesis is formulated around the idea that in special circumstances directors are able to bring their expertise to bear on the issues at hand and therefore add shareholder value to assets, despite their diverted attention. Two sets of circumstances are addressed, routine monitoring and special circumstance monitoring. Routine monitoring was designed to address the truth of the attention hypothesis and the fallacy of the expertise hypothesis. Unfortunately, routine monitoring was unable to support either the attention hypothesis or the expertise hypothesis. Conversely, special circumstance monitoring was designed to address the fallacy of the attention hypothesis and the truth in the expertise hypothesis. As was seen in the routine monitoring, the special circumstance monitoring results did not clearly support either hypothesis.

Kiel and Nicholson's (2006) article on multiple directorships "...consider[s] the extent of multiple directorships in companies listed on the Australian Stock Exchange (ASX) and whether there is any relationship between director workloads and the performance of the

companies they govern.” They perform a seemingly exhaustive literature review and set out to create a numerical value for board interconnection. They create a metric for board size, board interconnection and board workload. They further discuss the equivalent workload of each director position in terms of the rhetoric of the Australia Shareholders’ Association (ASA). The ASA published a calculation stating “...that a chairmanship requires three times the effort of a [director’s] workload, while a deputy chairmanship is equal to two directorships.” (Kiel & Nicholson 2006) Kiel and Nicholson sort the data set of firms into six categories:

1. Top 100 companies.
2. Top 200 companies.
3. S&P/ASX 200 companies.
4. The S&P/ASX 200.
5. All listed entities.
6. Corporate groups.

They perform their directorship calculations with respect to risk adjusted total shareholder return. Their report shows there is no empirical evidence to support the ASA statement on multiple directorships, that “there is a link between companies with difficulties and the workloads of their boards” and that Kiel & Nicholson’s work undermines the findings of the ASA.

Determining the existence of Amakudari in publicly-traded Japanese companies: a Poisson Regression Approach written by Sang-Young Rhyu (2008) is a very interesting

study. In this letter found in *Applied Economics Letters* the Amakudari are defined as a political-economic phenomenon which is frequently observed in the economies of both the Japanese and other modern societies. In this phenomenon, retired high-ranking bureaucrats are appointed as top executives in lucrative private firms that are regulated by government ministries or main banks. These high-ranking ex-government officials use their influence to obtain favorable legislation and treatment for their companies.(Rhyu 2008) Rhyu continues the letter with the understanding that the data violates the laws of linear regression and that Poisson's regression analysis is required. When Amakudari are hired from one of the three subgroups, subsequent hirings are made from the same sector. He also found a direct relationship between the number of Amakudari and a company's sales. High government ownership was found to result in increased Amakudari from the government sector, while trade unions resulted in more broadly defined Amakudari. Publicly traded companies with higher government ownership typically hired more Amakudari from the government sectors and fewer from the financial sectors. Companies which were foreign-owned had fewer Amakudari hired from quasigovernment companies. The term Amakudari transliterates as "descent from heaven" (Rhyu 2008)

The Small World of Corporate Boards by Conyon and Muldoon (2006) makes some very interesting suppositions. They suggest that the 'Small World' of the corporate elite can be structured and modeled with network theory graphs. The advent of low cost computational power allows massive random interconnecting networks to be modeled efficiently. They further set out to define 'Small World' and board interconnectedness in

terms of social network structures; a phenomenon where boards of directors are clearly more interconnected than the random models. Graphs are drawn where boards are circular and fully interconnected structures and the common board members are shared. This creates graphical representations of degrees of separation of boards.

2.1 – ANALYSIS OF LITERATURE

Li and Ang's (2000) work examines the share price increase as a measure of the performance of directors in a merger situation only. I posit that any director cognizant of a directorship position jeopardized by a merger will reduce any shirking and perquisite consumption to near-zero values because they are being observed and because the process is competitive. Li and Ang's two hypotheses diverge; one is focused on attention and another on expertise. Since expertise is optimally nearly unique on a board it may be improperly addressed by those who are believers in the attention hypothesis. To be critical I would suggest that directors of merger targets begin to groom their firms for acquisition several years prior to becoming a target and thus reduce perquisite consumption in the hopes of either a new position with greater responsibility and greater compensation or a compensation package and the hope of a position elsewhere. To be further critical, to see post share price increases in the market, I would consider the post-merger share prices to be indicative of investors considering the economy of scale of the new enterprise. Reasonable investors, noting that the boards are too large or inefficient in a merger process, will selectively purchase shares where board membership will be reduced and gains in post-merger firm efficiency can be realized. Further, while directors are managing a merger logically, following from the attention hypothesis it would reduce

their ability to manage the firm by time and logically, from the expertise hypothesis firm inefficiencies would follow from the additional directors and auditors necessary to manage the merger process. Since neither hypothesis supports the improvement of the managing of the merging firms' assets during the merger process, both of these would have normalizing effects on the directorship data.

Determining the existence of Amakudari in publicly-traded Japanese companies: a Poisson Regression Approach written by Sang-Young Rhyu (2008) demonstrates that the results are non-linear as the number of Amakudari in a firm increase, it does so to an optimal point and declines from there. The use of non-linear models and the comparison to asymmetric distribution gives way to data which may follow a predictive model in Japan. Bureaucrats may not have the same extent of cultural influence in other markets to generate results as strong as those seen for Japan

Kiel and Nicholson's (2006) article on multiple directorships provided metrics for board size, board interconnection and board workload and are of interest here. The notion that the equivalent workload of each director position "...that a chairmanship requires three times the effort of a [director's] workload, while a deputy chairmanship is equal to two directorships.", in terms of the ASA discussion, is of interest to us. Defining the workload and general health of a board in terms of a simple tally that can be readily handled and compared easily is paramount to the success of this study. The consideration of agency cost as a measure of firm efficiency or vice-versa is missing in this study. While a firm can be returning shareholder value because of its noted network of

interconnected participants what is not captured is the potential for increased perquisite consumption by the more connected board members. The effectiveness or capacity for abundance of the firm is captured in terms of risk adjusted total shareholder return but it fails to address the potential for inefficiency in the firm. Further one could argue that this procedure stands to reinforce the 'Old Boys Club' in that directors and shareholders alike are rewarded for increasing the capacity of the director's network but not the efficiency of the firm.

The Small World of Corporate Boards by Conyon and Muldoon (2006) argued against the perceptions that boards are superfluously interconnected or 'clubby' and this study asserts that the process is sufficiently similar to random. What this study does not account for is the possibility of canceling (addition and subtraction) of director connections. Shareholders have an expectation that directors will use whatever means possible to make decisions to benefit the shareholders – this includes the power of social networking. While it seems intuitive that directors, having scarce abilities, opportunity or understanding would push the graphical network toward greater randomness and that being in a particular socioeconomic class or enjoying similar beliefs, ethics or even recreational pastimes would have a sorting and interconnecting effect on the graph. Further, interconnections by family relations are not considered nor are any structures of government considered a board. The consideration of this potential addition or subtraction does not materialize in the study. Another key point overlooked here is the effect of interconnectedness on shareholder value. I suggest that shareholders would not want to invest money in firms that were directed by networks that are sufficiently

random. Shareholders want the assurance the directors are sufficiently connected and that value is being returned. It is possible that efficiencies gained through personal relationships are lost in perquisite consumption and beyond the scope of Conyon and Muldoon's work.

2.2 SYNTHESIS OF LITERATURE

Jensen & Meckling (1976) wrote the seminal work on agency costs and defined it as the sum of three components, the monitoring expenditures by the principal, the bonding expenditures by the agent and the residual loss. As the number of paid directors increases, the monitoring costs and bonding expenditures also increase. Likewise firm efficiency would increase up to the point of having surplus directorship and at some surplus point it is reasonable to assume that with too many directors, or directors spread too thinly, the efficiency would decrease.

Noting Li and Ang (2000) it is clear that a sample of merger targets may bias or dilute the results therefore the sample set was broadened to be a representative year of the listed firms on the Toronto Stock Exchange. It was then further broadened to capture a boom-bust cycle by including the adjacent year.

Kiel and Nicholson's (2006) article on multiple directorships gives us a tallying mechanism for quantifying the workload that directors face. The method is of interest here. By expanding the tally method to include the difference in workload of directors

acting on behalf of a firm vs. acting on behalf of other firms we can relate this to the chosen financial ratio.

Canyon and Muldoon (2006) demonstrated results that were equivalent to random by examining graph theory, and excluding agency costs. Conversely in our present study the graphical method is eliminated, the directorship interconnectedness tallied and a measurement of agency costs, in terms of firm efficiencies, is compared.

This study uses the rational board score tallying similar to that of Keil and Nicholson (2006) and agency costs in terms of the efficiency of a firm from Ang, Cole and Lin's (2000) second metric to consider the agency costs from multiple directorships. To avoid the problems seen in Li and Ang's (2000) study where the sample set of merger targets is potentially affected by the experimental method the entire set of listed firms on the Toronto Stock Exchange was selected.

CHAPTER THREE – METHODOLOGY

The OSIRIS Database service by Bureau van Dijk Electronic Publishing provided quarterly reports for the one thousand forty publicly traded firms on the Toronto Stock Exchange. This set of reports contained the names of directors on the board and a few financial ratios. These reports were transferred from a text format into Excel to form sequential lists. One list was then sorted by director position and positions scored based on estimated workload. These are called position scores (PS). On another sheet the position scores of the directors were summed and these summation scores (director

summation scores (DSS) were applied to the original list. The firm score (FS) is the sum of the director summation scores minus the sum of the position scores (PS) for the firm. This novel summation captures three issues in poor corporate governance, multiple directorships within the same firm, multiple directorships across other firms regardless of market share (firm interconnectedness), and the split in the responsibilities and time commitments of the board of directors as a whole. These summations are compared to firm efficiency by sector and a log regression is applied to the data sector by sector.

The resulting sample consists of 1018 firms and 14,049 published manager/director positions. The number of firms and directors in the spreadsheet provided with this report is 1024 and 14,055 respectively, as six firms do not report board of directors information in the OSIRIS data base. The tally process assigned director scores of zero to those six data points and as such they drop out of the model.

The 14,049 director positions are assigned a score between zero and two according to perceived workload or responsibilities. CEOs or Chairs are awarded a score of 2, a typical director position being awarded a 1, and a recording secretary or assistant being awarded a zero. Further clarification of the director position scores is in Appendix I. Of interest, is the particular attention to income trust firms in Canada. For these firms, the corporate tax structure is applied differently and this loophole increases profitability. Directors are often assigned Trustee roles in these firms. They are given a position score of 0.7, lower than a director managing a firm because they are managing the financial trust side of the firm only.

The director positions are alphabetized and the position scores for identical names are summed to create the director scores.

$$\Sigma PS_{names} = DS_{name}$$

The list is organized by firm and the board score is the sum of the position scores for the sitting board of directors. This is intended to capture the amount of strength and commitment required to manage the firm.

$$\Sigma PS_{firm} = BS_{firm}$$

The firm score (FS) is the sum of the director scores (DS). This score represents the amount of lateral influence the firm would have access to for decision making.

$$\Sigma DS_{firm} = FS_{firm}$$

The governance score (GS) of a firm is the difference between the firm score and the board score. The governance score is a measurement of the relative interconnectedness of the board, the efforts required to maintain the interconnections and the power associated with the interconnected positions.

$$GS_{firm} = FS_{firm} - BS_{firm}$$

The efficiency ratios (agency costs) for the firms were taken from the Osiris Database in April 2009.* The ratios were associated with the last annual report date and for the dates two years prior. The firm efficiencies were then resorted by reporting year and the governance score and where the firms did not report in the year 2007 or the year 2008, or reported negative efficiency they were assigned a null value.

*Note: Thirty-eight (38) firms were missed during the first round of data collection. A list of them is provided in Appendix II in case a research error was introduced.

CHAPTER FOUR – DISCUSSION OF EMPIRICAL RESULTS

We now have a 2007 efficiency ratio and a 2008 efficiency ratio to compare to the governance scores. The 2009 efficiency ratio in the spreadsheet is a placeholder used to trap incomplete annual information as it is being reported by the database. The opportunity to capture the effects of the financial collapse in the United States and the onset of the global recession on firm efficiency was too great to pass up in this research. At this point in the analysis, the firms were split into the ten sectors as described by the *Industry Classification Benchmark* (2008) as follows:

Sector Zero: Oil and Gas

Sector One: Basic Materials

Sector Two: Industrials

Sector Three: Consumer Goods

Sector Four: Healthcare

Sector Five: Consumer Services

Sector Six: Telecommunications

Sector Seven: Utilities

Sector Eight: Financials

Sector Nine: Technology

The Graphs are plotted for the ten sectors for years ending 2007 and 2008 in the interests of capturing the data in light of the boom-bust cycle of the Toronto Stock Exchange.

Zero values for governance score are truncated to facilitate logarithmic regression.

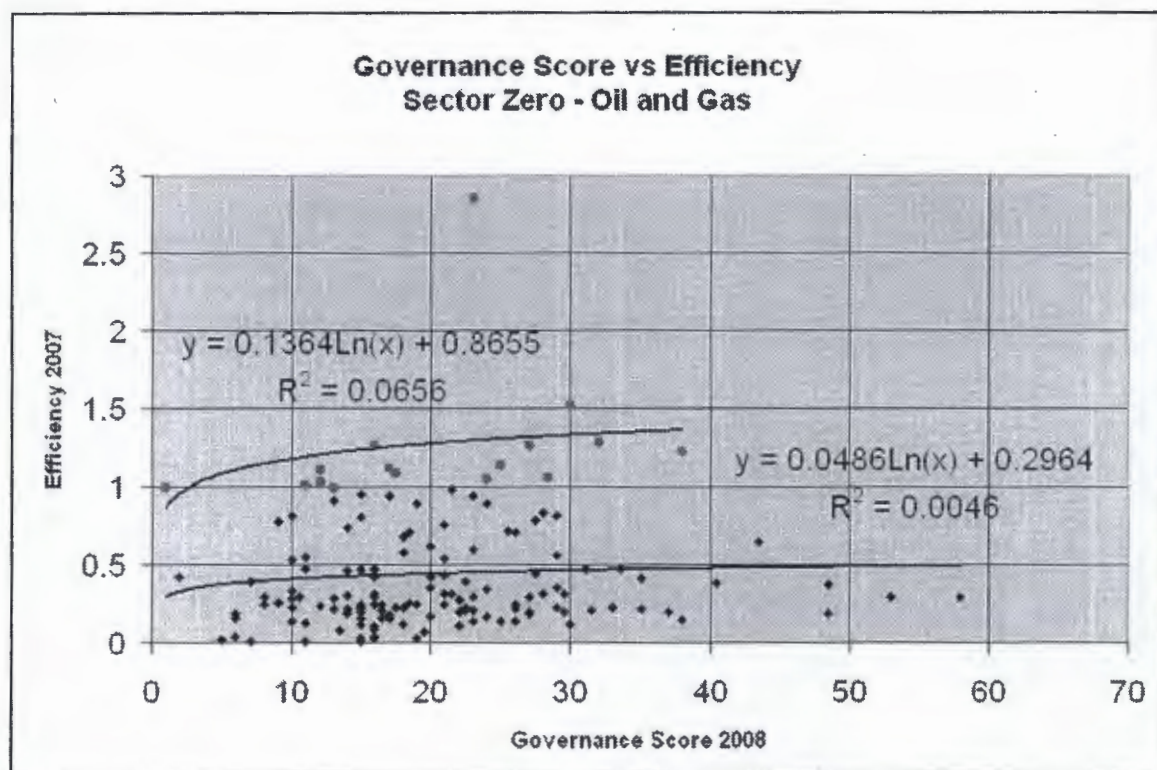


Figure 1 – Sector Zero – Governance Score 2008 vs. Efficiency 2007

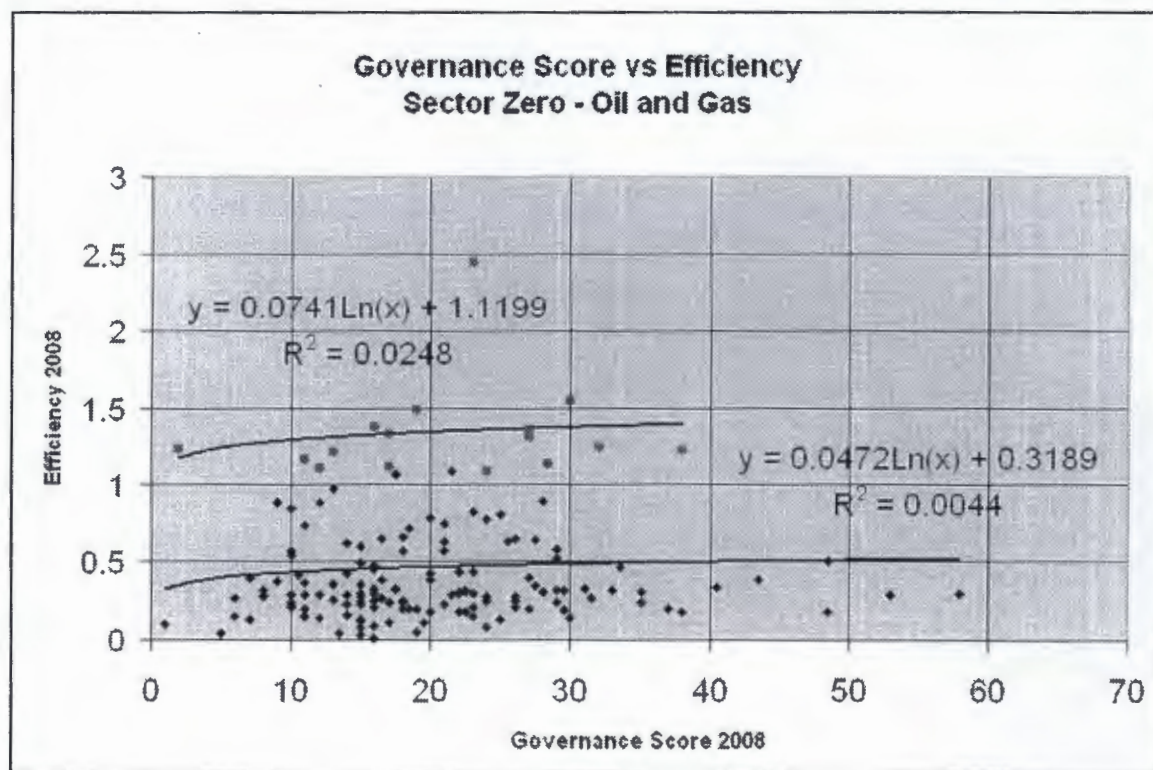


Figure 2 – Sector Zero – Governance Score 2008 vs. Efficiency 2008

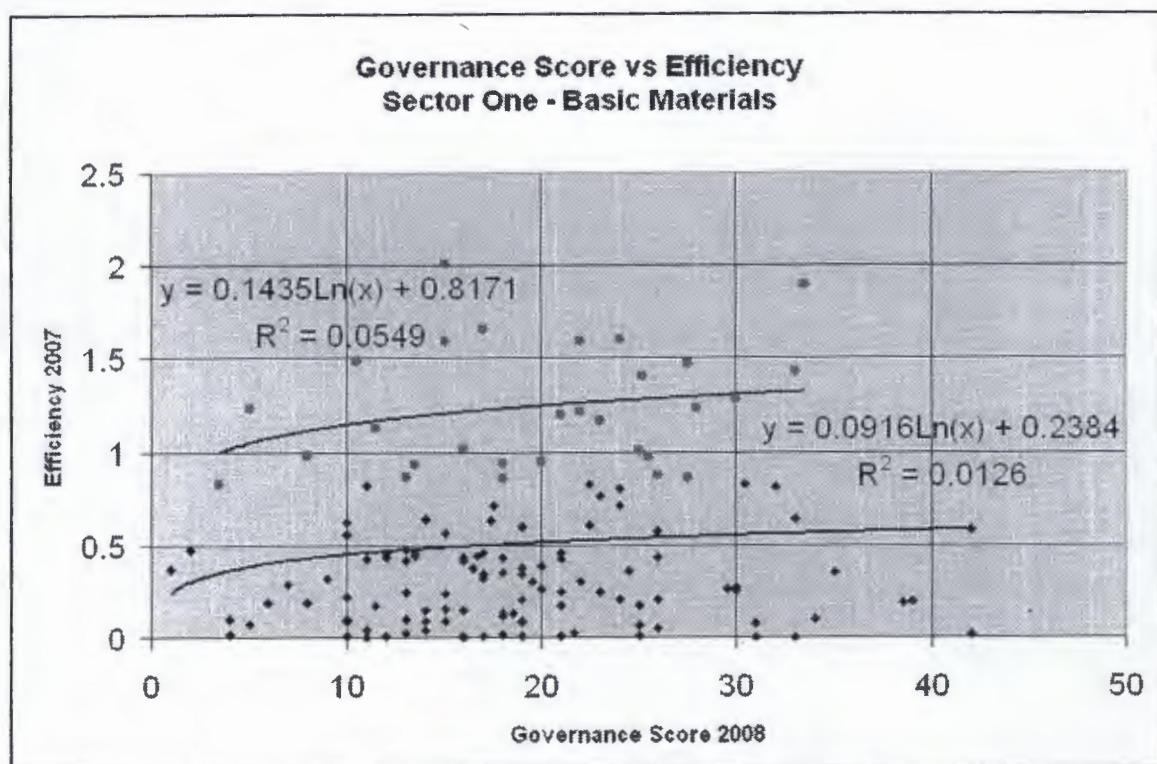


Figure 3 – Sector One – Governance Score 2008 vs. Efficiency 2007

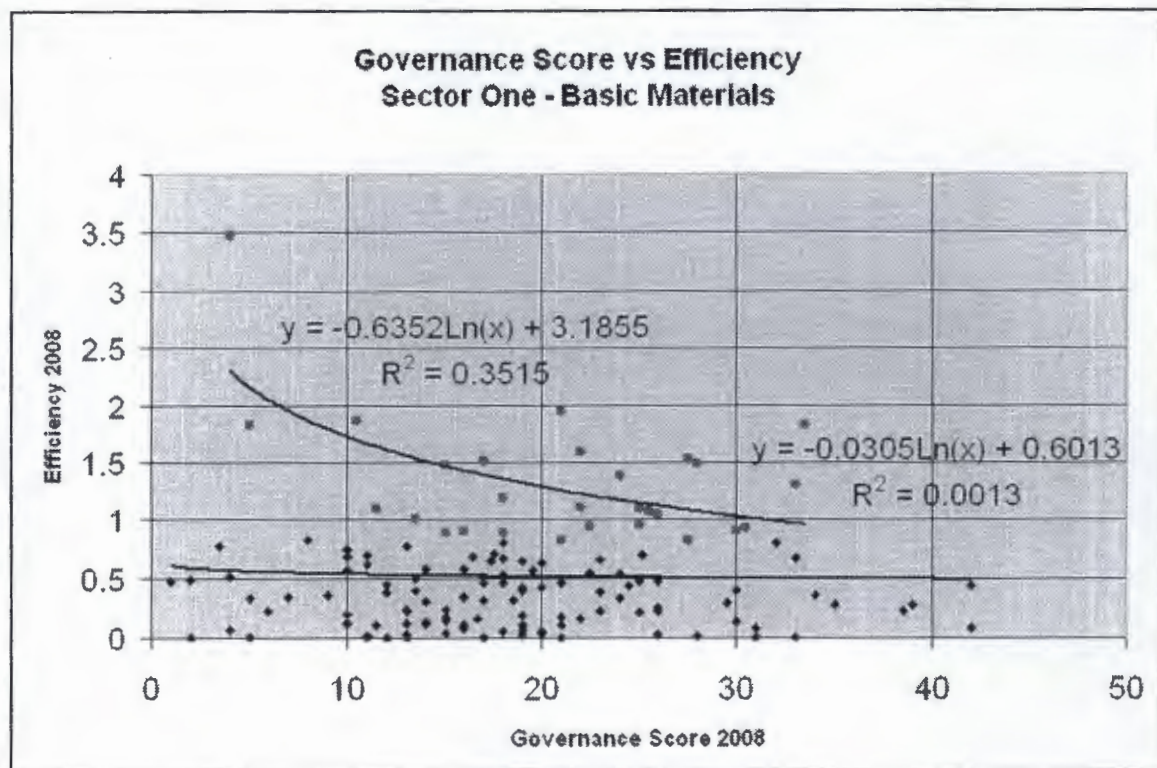


Figure 4 – Sector One – Governance Score 2008 vs. Efficiency 2008

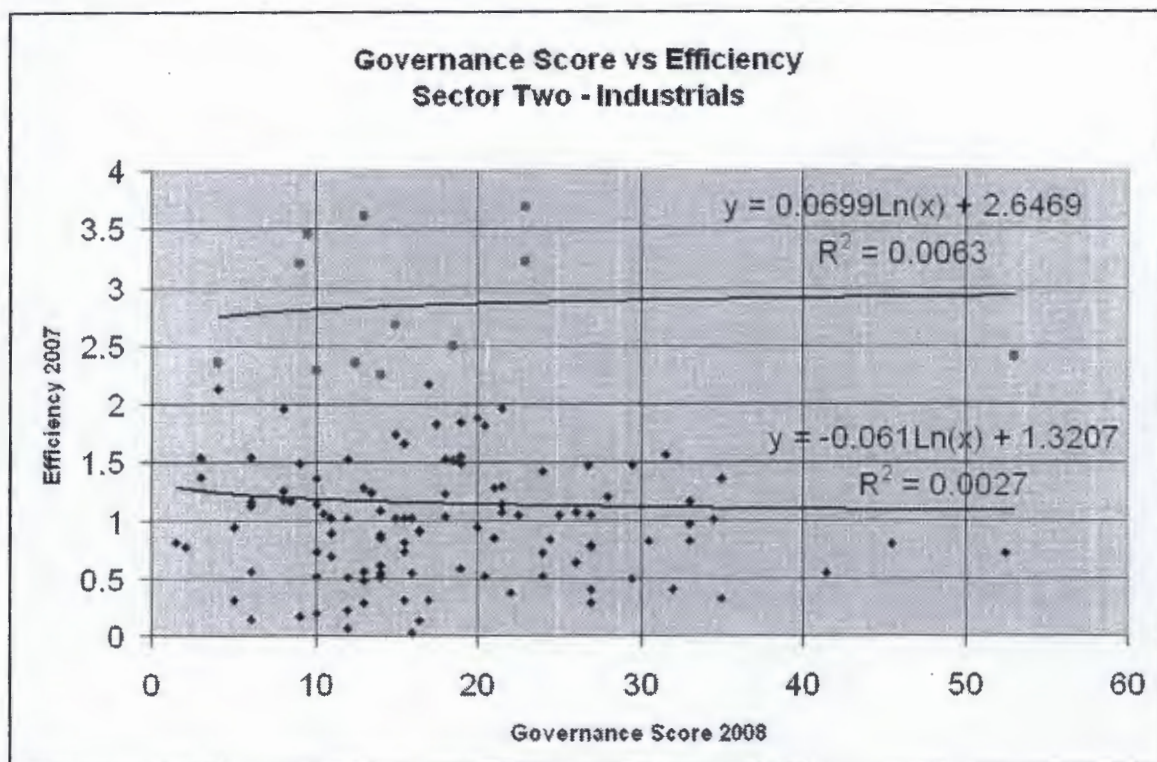


Figure 5 – Sector Two – Governance Score 2008 vs. Efficiency 2007

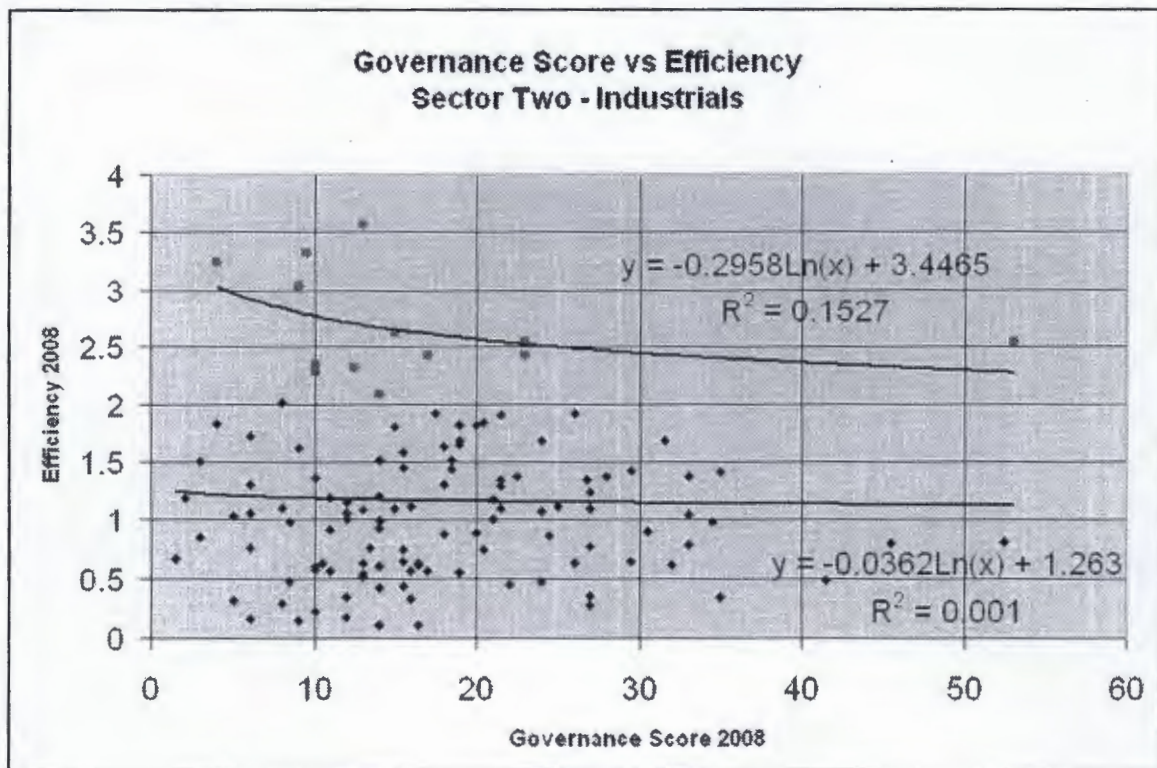


Figure 6 – Sector Two – Governance Score 2008 vs. Efficiency 2008

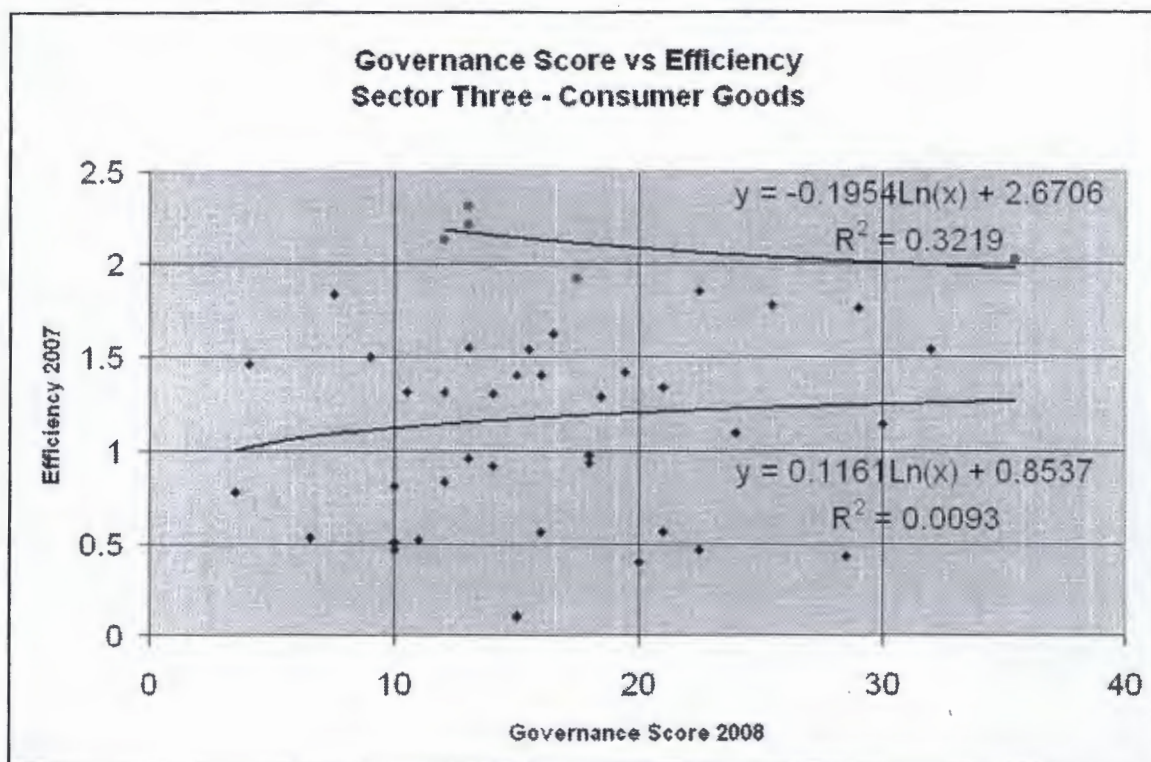


Figure 7 – Sector Three – Governance Score 2008 vs. Efficiency 2007

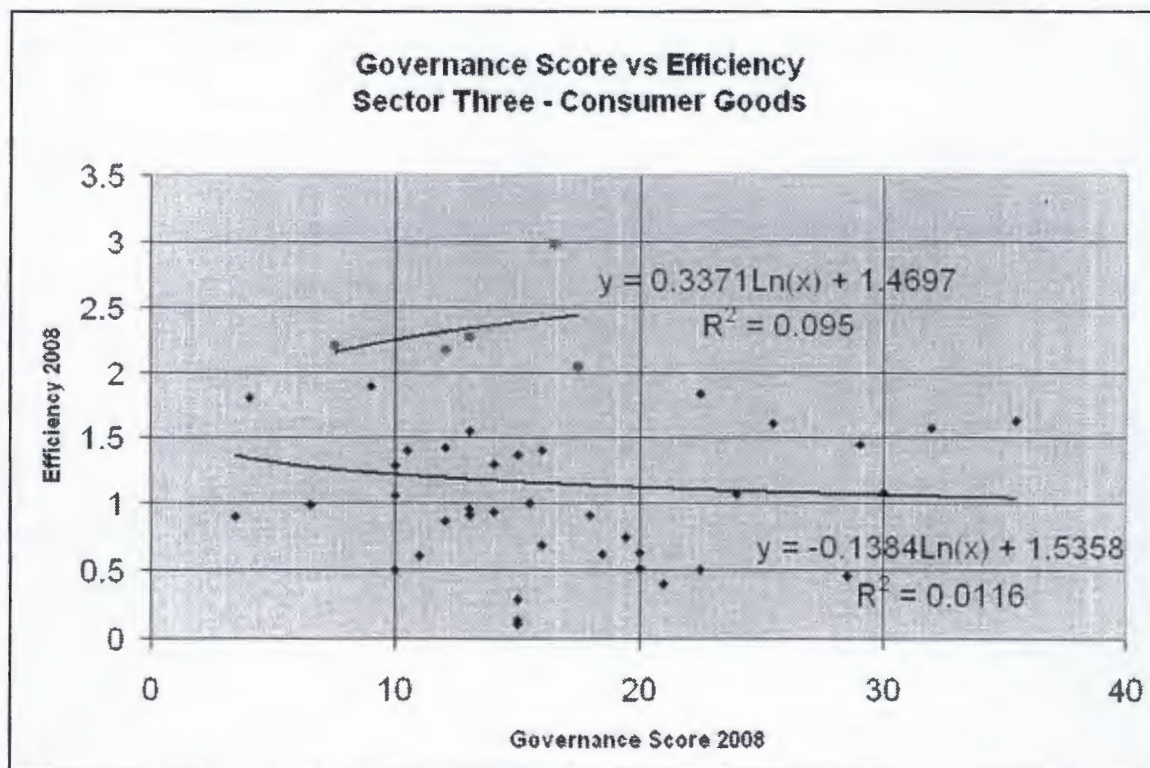


Figure 8 – Sector Three – Governance Score 2008 vs. Efficiency 2008

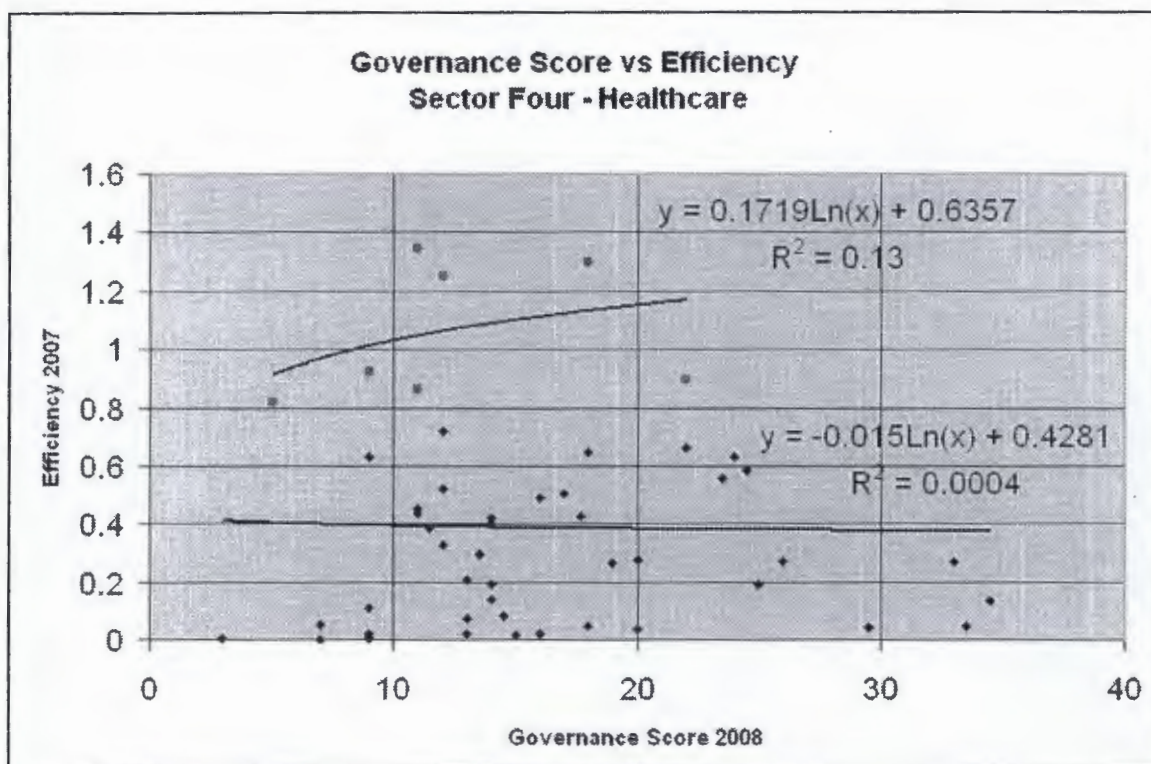


Figure 9 – Sector Four – Governance Score 2008 vs. Efficiency 2007

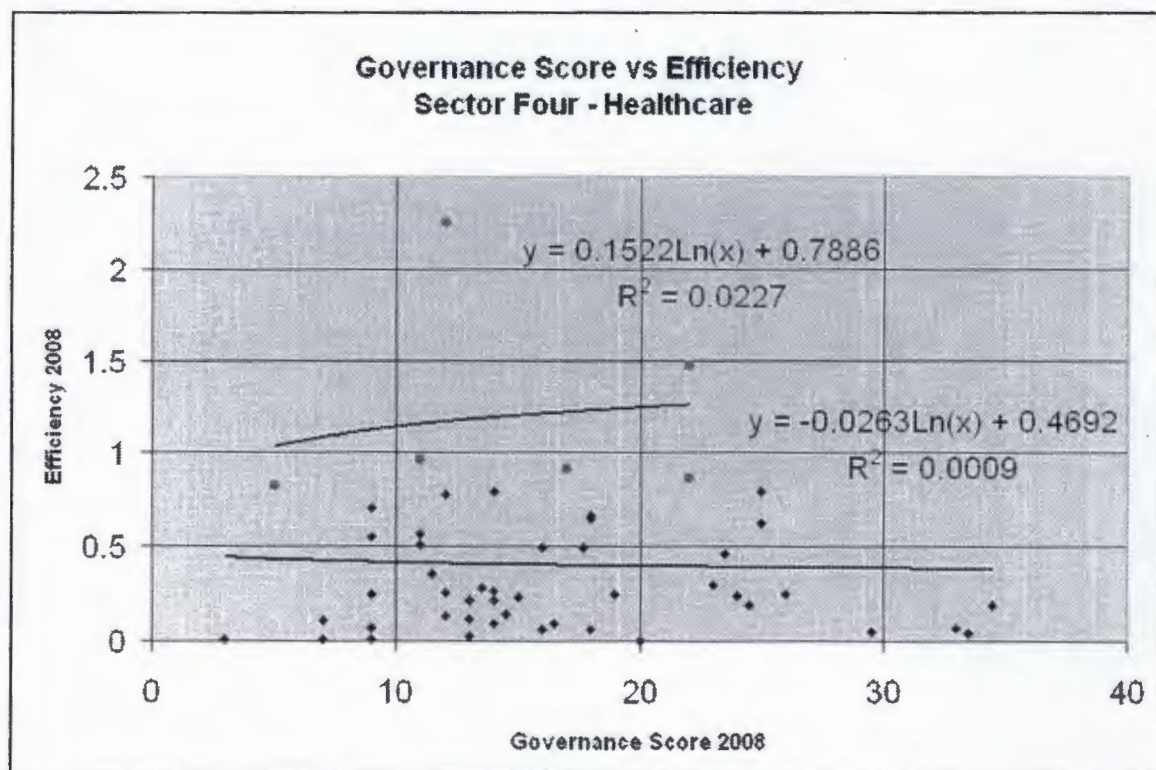


Figure 10 – Sector Four – Governance Score 2008 vs. Efficiency 2008

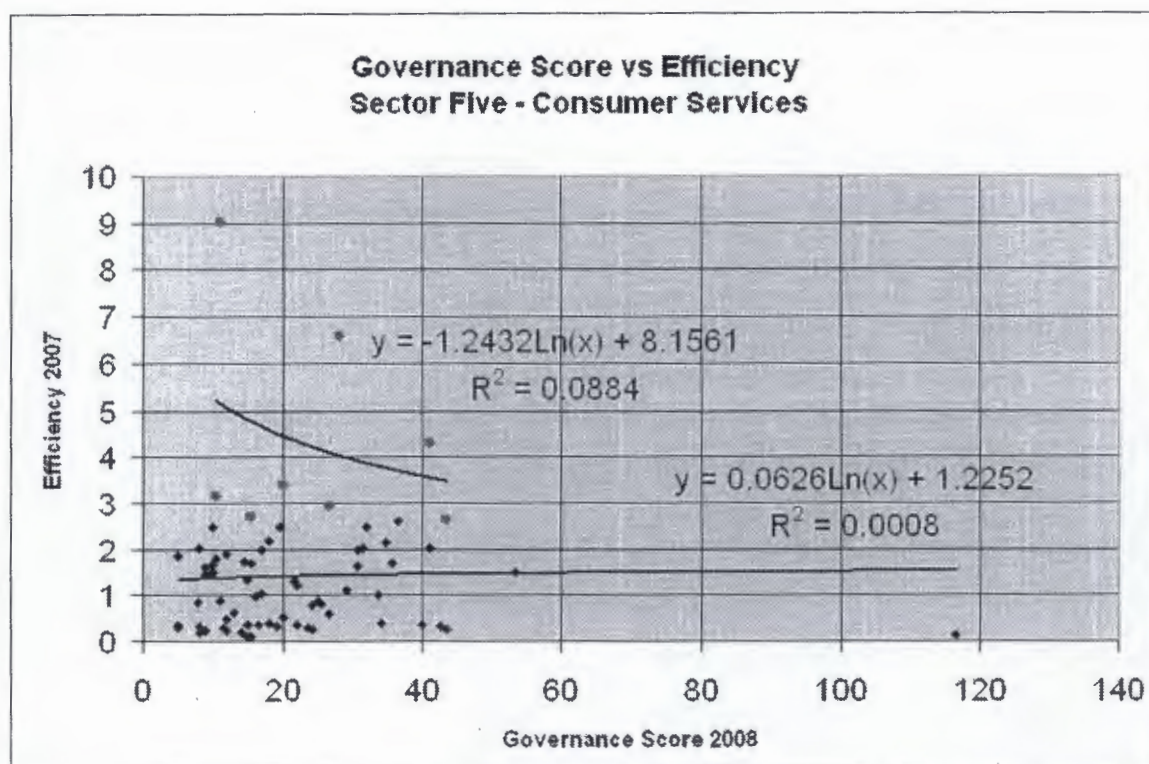


Figure 11 – Sector Five – Governance Score 2008 vs. Efficiency 2007

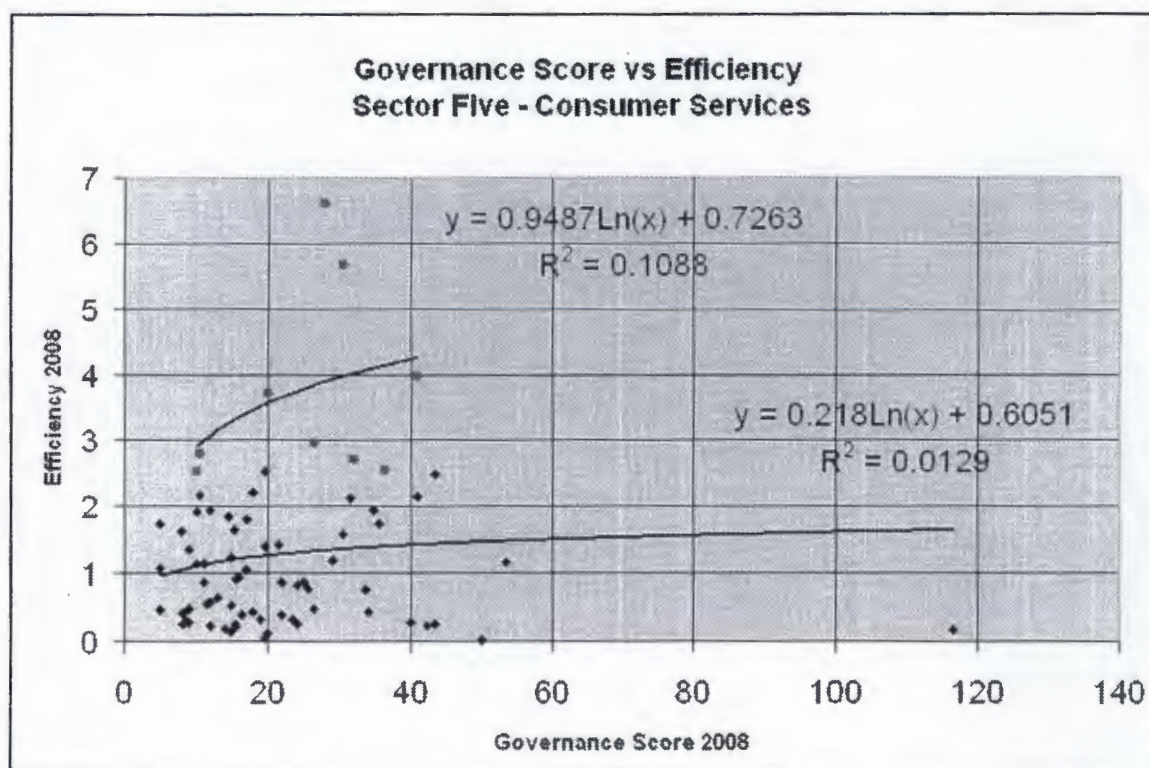


Figure 12 – Sector Five – Governance Score 2008 vs. Efficiency 2008

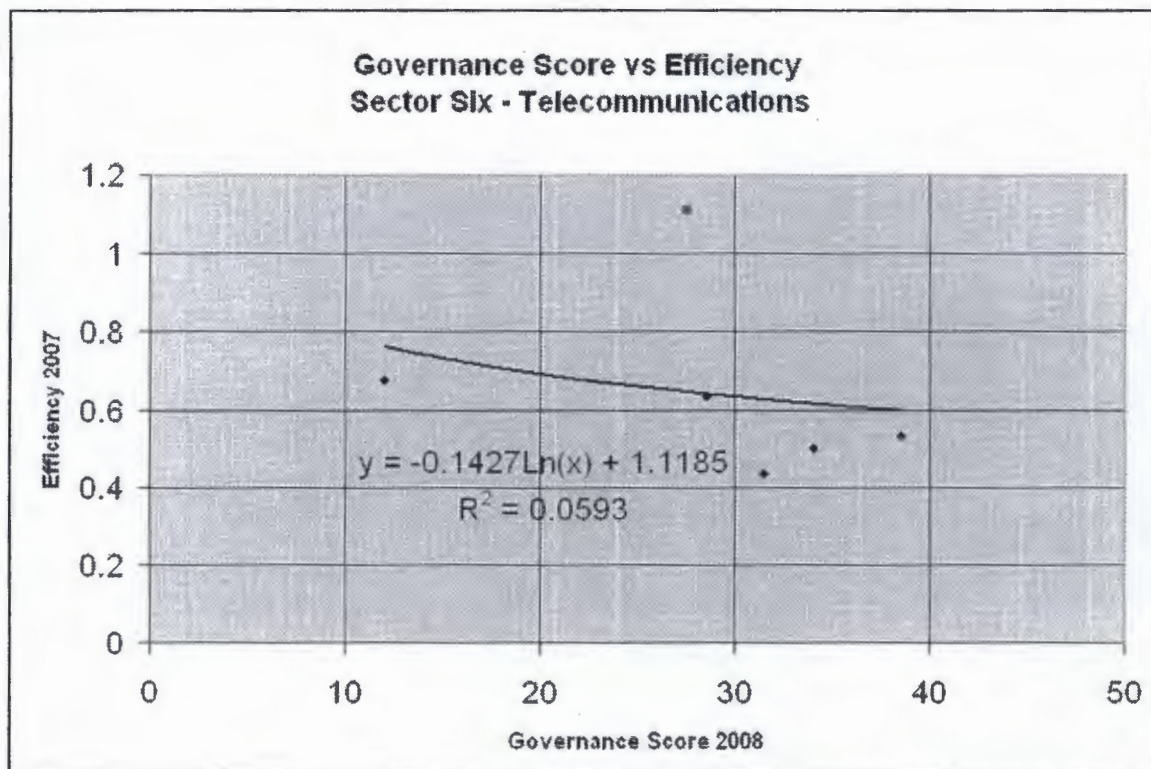


Figure 13 – Sector Six – Governance Score 2008 vs. Efficiency 2007

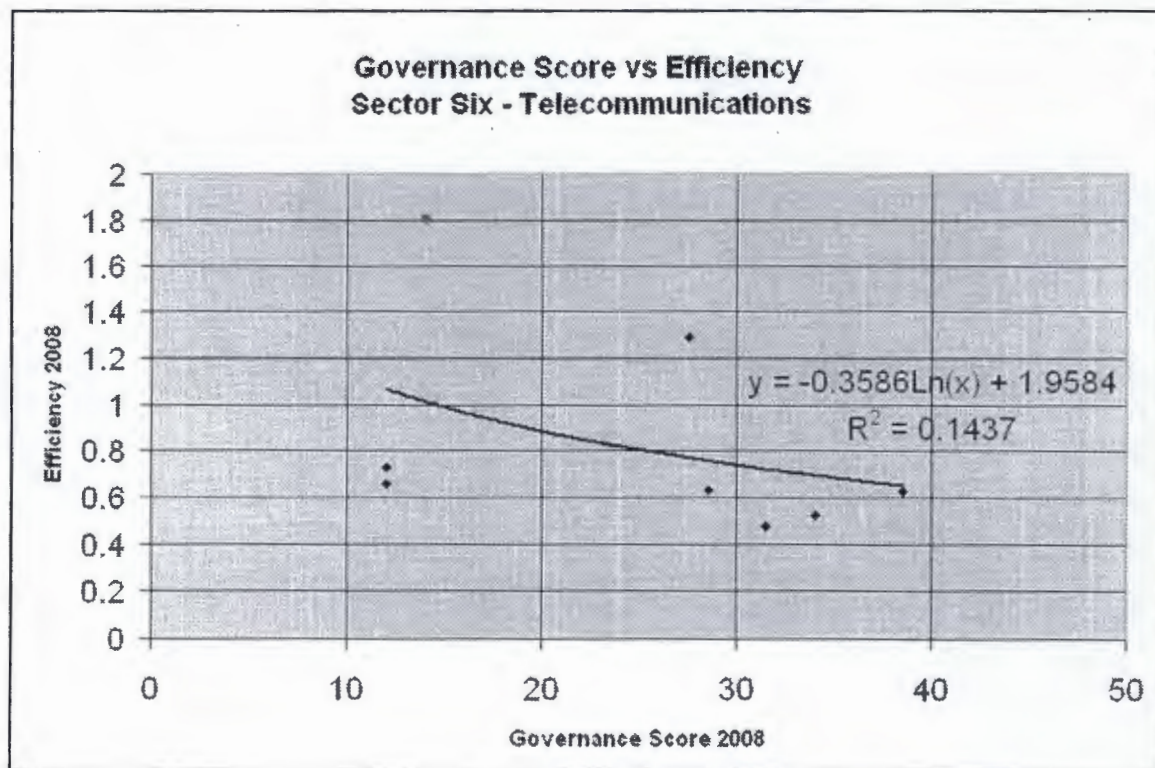


Figure 14 – Sector Six – Governance Score 2008 vs. Efficiency 2008

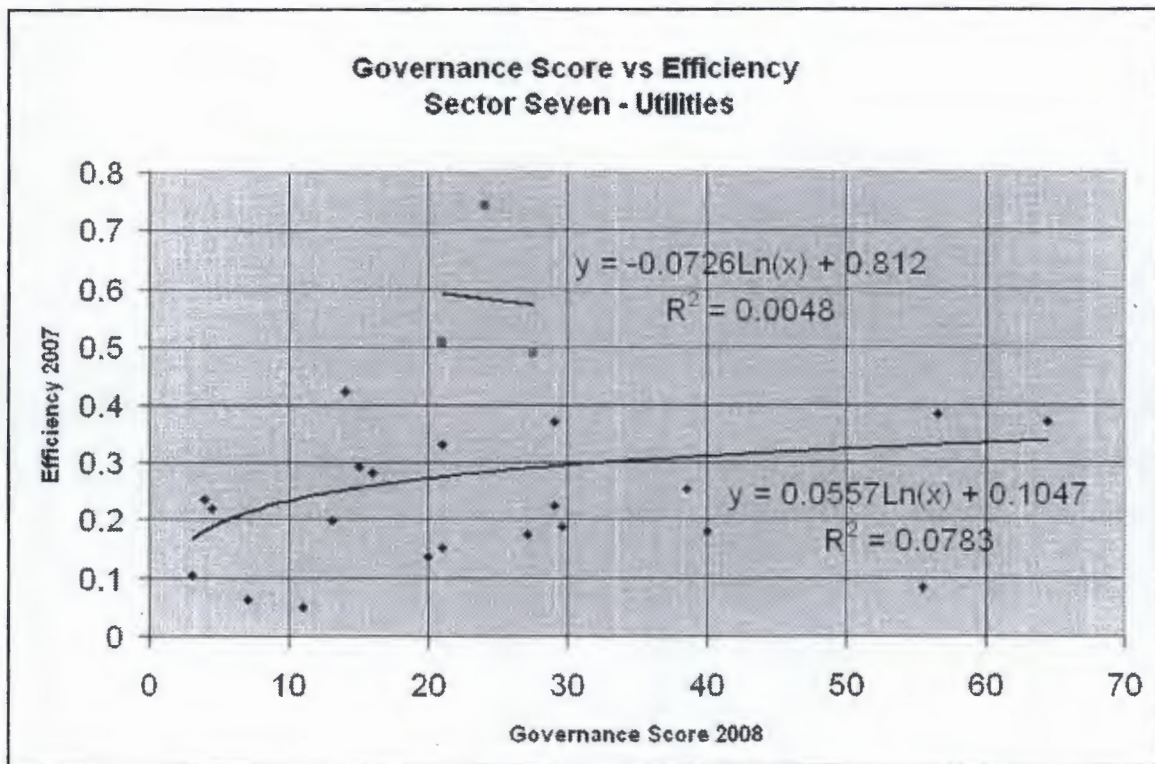


Figure 15 – Sector Seven – Governance Score 2008 vs. Efficiency 2007

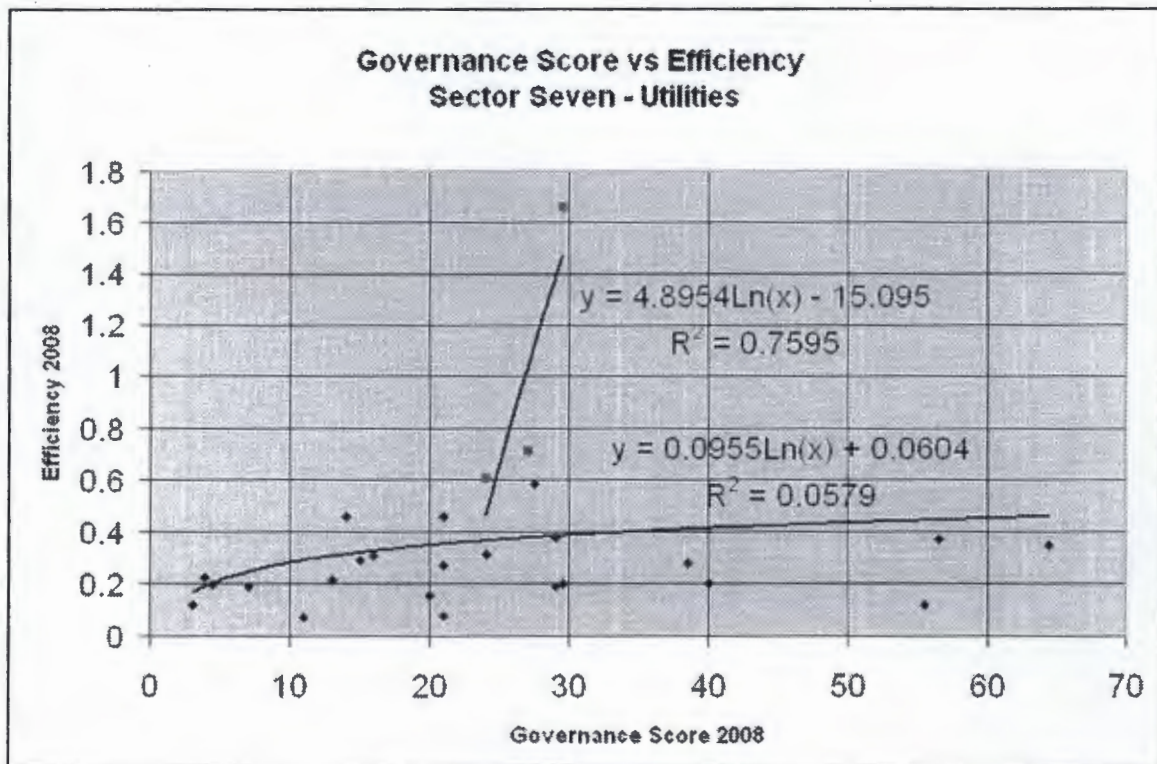


Figure 16 – Sector Seven – Governance Score 2008 vs. Efficiency 2008

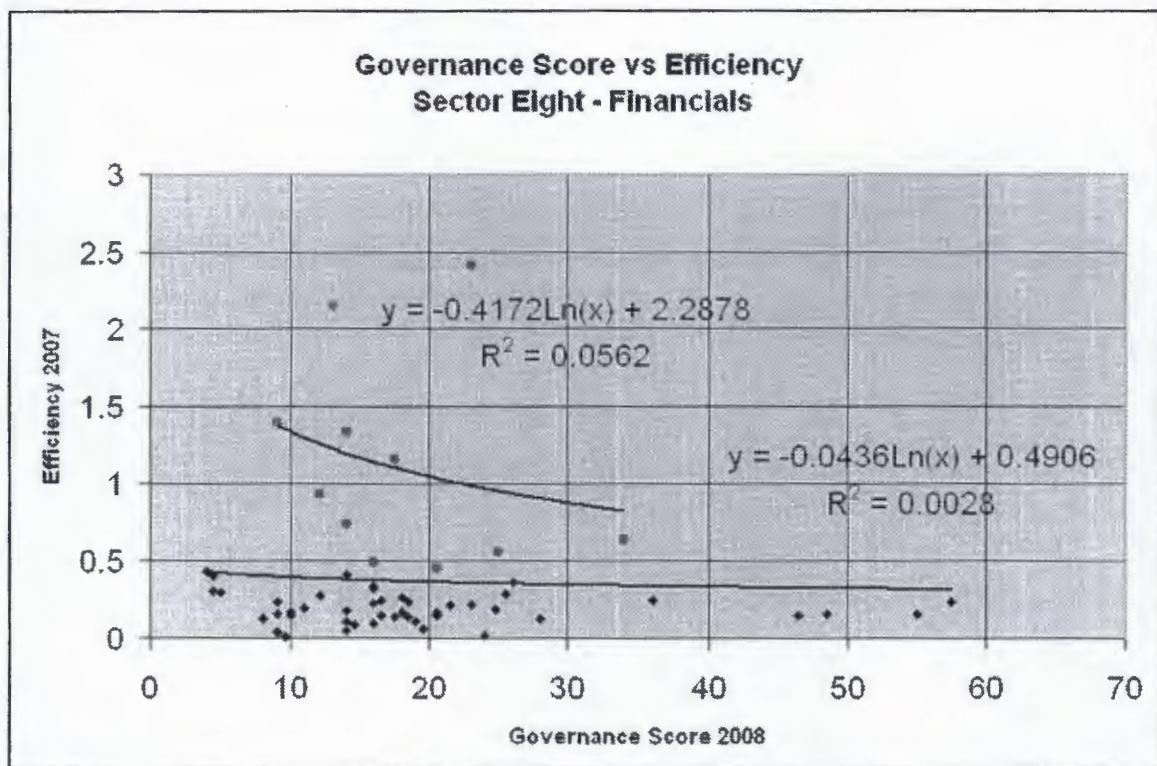


Figure 17 – Sector Eight – Governance Score 2008 vs. Efficiency 2007

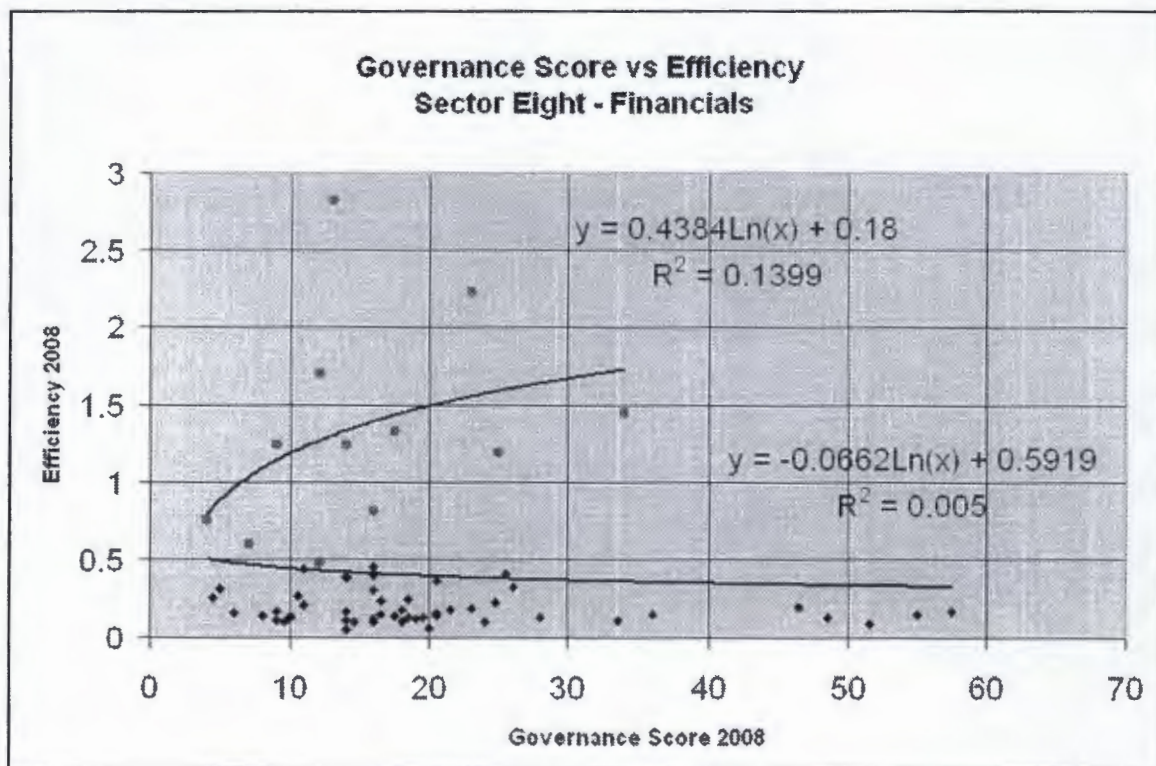


Figure 18 – Sector Eight – Governance Score 2008 vs. Efficiency 2008

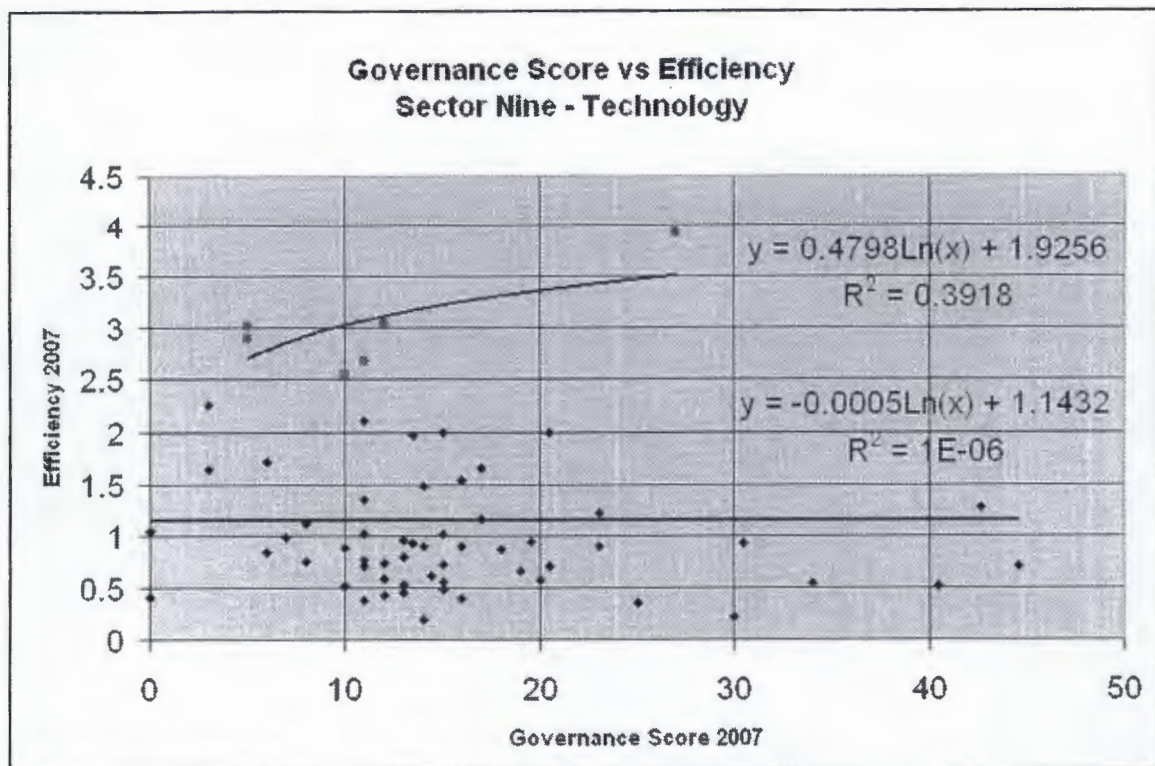


Figure 19 – Sector Nine – Governance Score 2008 vs. Efficiency 2007

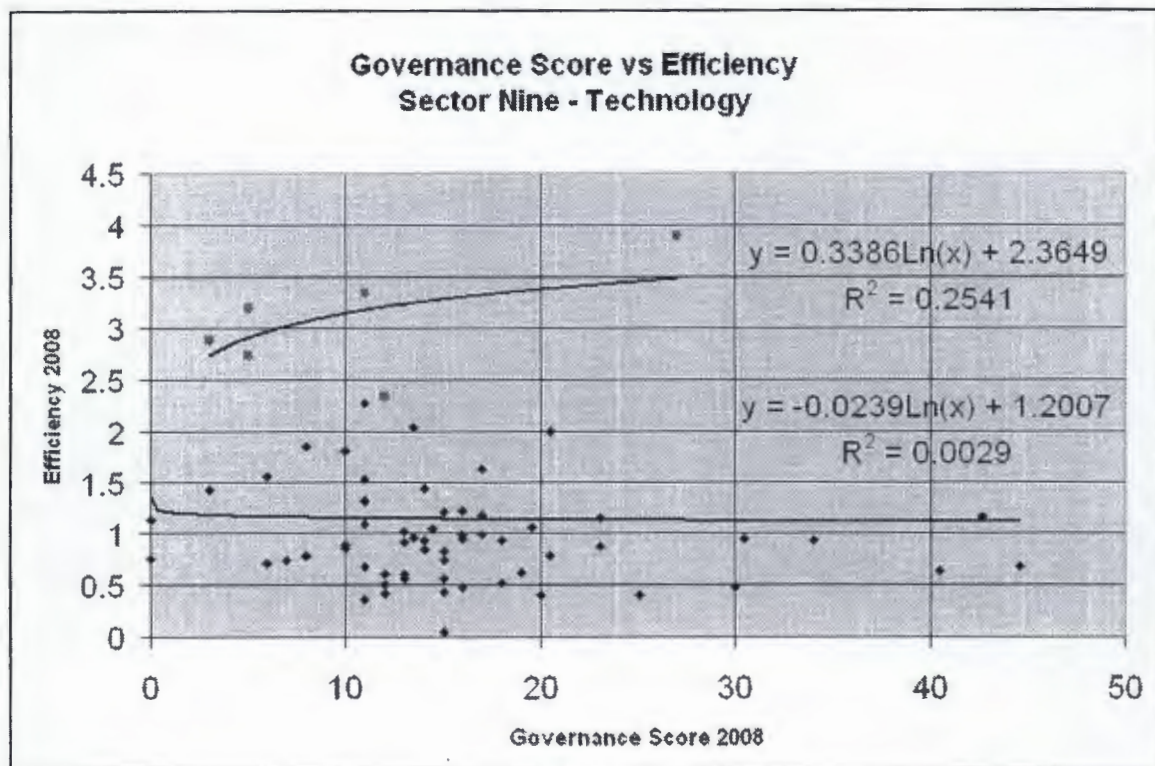


Figure 20 – Sector Nine – Governance Score 2008 vs. Efficiency 2008

4.1 DISCUSSION OF LOGARITHMIC REGRESSION

The results are clearly non-linear and non-correlative. Because strong correlation was not observed, the comparison of linear functions from sector to sector would be of little value. A statistical analysis package called Eviews was applied to the sector to sector data. This provided the opportunity to make diligent comparisons from sector to sector, comparing the means and the data sets as wholes. The raw results from the sector to sector comparisons can be seen in Appendix III. Finally, to end any further discussions on linear regression, a set of variable to variable, variable to log, log to variable, and log to log regressions were performed. This data is included in the electronic submission with the spreadsheet but is of little value. The regression results are too weak. The discussion of the sector to sector results follows.

4.2 SECTOR TO SECTOR DISCUSSION

The compared averages in firm score and board score only change as firms are listed or de-listed from the Toronto Stock Exchange during the time-span of this study. Since this happened in Sector Three – Consumer Goods with a loss of one (1) reporting firm and Sector Four – Healthcare with a gain of fourteen (14) reporting firms this has a tendency to move the compared averages more rapidly.

4.2.1 SECTOR ZERO DISCUSSION – OIL AND GAS

The Sector Zero Log trend lines remained concave down for the entire data set and for the firms with upper decile efficiency. Upper decile efficiency rose slightly in 2008 where governance scores range from 1 to 38 and where peak efficiency is associated with a Governance Score of 23. The overall 2008 Sector Zero efficiency dropped slightly and reported a governance score as high as 58.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	--	--
Sector One	12.73	same	.0026	same
Sector Two	13.40	same	.2926	same
Sector Three	14.27	14.30 (up 0.03)	.5840	.5577
Sector Four	13.39	13.23 (dn 0.16)	0.3667	0.1889
Sector Five	14.65	same	0.2205	same
Sector Six	16.89	same	0.0201	same
Sector Seven	13.88	same	0.9682	same
Sector Eight	13.10	same	0.1612	same
Sector Nine	12.89	same	0.0590	same

Table 1 – Sector Zero – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	--	--
Sector One	30.68	same	.0112	same
Sector Two	30.44	same	.0276	same
Sector Three	30.86	30.72 (dn 0.14)	.1386	.1248
Sector Four	29.10	29.08 (dn 0.02)	0.0117	0.0045
Sector Five	36.44	same	0.2389	same
Sector Six	40.39	same	0.1117	same
Sector Seven	38.24	same	0.0926	same
Sector Eight	31.42	same	0.1775	same
Sector Nine	28.16	same	0.0012	same

Table 2 – Sector Zero – Mean Firm Scores and t-tests

Relating back to our hypothesis about Shirking and Multiple Directorships and comparing other sectors to Sector Zero, we should see that the sectors that have the smallest mean number of directors on their boards and the lowest numbers of average sittings should be those with the least shirking, the lowest agency costs and be most efficient. Sector Zero is fourth lowest of ten sectors for Board Score and fourth lowest of ten sectors for Firm Score. Strangely it is the seventh highest (third from last) for efficiency. If we consider the treatment of averages to be representative of the sector

subtracting the mean of the Board Score of Sector Zero (13.91) from the mean of the Firm Score of Sector Zero (33.80) producing a difference of means of 19.89. This Board Score translates to an average board of one CEO and roughly Twelve directors for a counted score of 14, the directors and CEO then hold collectively nearly 20 other board seats on average.

A comparison of the efficiency of Sector Zero 2007 (.4348) and Sector Zero 2008 (.4548) with the remaining nine sectors and their efficiencies and t-test scores with respect to the Sector Zero Data gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	--	--
Sector One	0.4919	0.5322 (up 0.0403)	0.2568	0.1644
Sector Two	1.1576	1.1665 (up 0.0089)	0.0000	0.0000
Sector Three	1.1677	1.1633 (dn 0.0044)	0.0000	0.0000
Sector Four	0.3838	0.39200 (up 0.0082)	0.4148	0.3206
Sector Five	1.4595	1.26460 (dn 0.1949)	0.0000	0.0000
Sector Six	0.6482	0.8421 (up 0.1759)	0.1866	0.0068
Sector Seven	0.2728	0.3438 (up 0.071)	0.0428	0.1667
Sector Eight	0.3959	0.41480 (up 0.0189)	0.5469	0.5371
Sector Nine	1.1628	1.17360 (up 0.0108)	0.0000	0.0000

Table 3 – Sector Zero – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Zero for Sector Two, Sector Three, Sector Five and Sector Nine; and that Sector Eight efficiencies are most like those of Sector Zero followed by Sector Four, Sector One, Sector Seven and finally Sector Six. In light of the Firm Scores and Board Scores and the Shifts observed in Sector three and Sector Four the change in efficiencies are small and compared to the strength of Sector Zero.

4.2.2 SECTOR ONE DISCUSSION – BASIC MATERIALS

Sector one and those that follow demonstrate only changes in the t-test. Sector one shows an interesting market shift from 2007 to 2008 where firms with high governance scores trended high in the bull market and trended low in the bear year. Peak efficiency in 2007 is associated with a governance score of fifteen (15) and four (4) in 2008. The trend lines are concave down in the bull year and concave up in the bear year for the whole sector and for the upper decile efficiency firms. This suggests that lower Governance Scores may allow firms to be more robust in the downturn.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.0026	same
Sector One	12.73	same	--	--
Sector Two	13.40	same	.1373	same
Sector Three	14.27	14.30 (up 0.03)	.0240	.0229
Sector Four	13.39	13.23 (dn 0.16)	0.2859	0.3675
Sector Five	14.65	same	0.0007	same
Sector Six	16.89	same	0.0035	same
Sector Seven	13.88	same	0.1539	same
Sector Eight	13.10	same	0.4781	same
Sector Nine	12.89	same	0.7647	same

Table 4 – Sector One – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.0112	same
Sector One	30.68	same	--	--
Sector Two	30.44	same	.8615	same
Sector Three	30.86	30.72 (dn 0.14)	0.9284	0.9851
Sector Four	29.10	29.08 (dn 0.02)	0.4016	0.3376
Sector Five	36.44	same	0.0032	same
Sector Six	40.39	same	0.0249	same
Sector Seven	38.24	same	0.0036	same
Sector Eight	31.42	same	0.6345	same
Sector Nine	28.16	same	0.1374	same

Table 5 – Sector One – Mean Firm Scores and t-tests

Sector one is sixth place for mean efficiency score and holds the lowest mean board score (fewest average board members) and holds the seventh lowest firm score out of the ten sectors. Subtracting the mean of the board score of sector one (12.73) from the mean of the firm score of sector one (30.68) producing a difference of means of 17.95. This board score translates to a an average board of one CEO and roughly eleven directors for a counted score of 13, the directors and CEO then hold collectively nearly 18 other board seats on average.

A comparison of the efficiency of Sector One 2007 (.4919) and Sector One 2008 (.5322) with the remaining eight sectors and their efficiencies and t-test scores with respect to the Sector Zero Data gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.2568	0.1644
Sector One	0.4919	0.5322 (up 0.0403)	--	--
Sector Two	1.1576	1.1665 (up 0.0089)	0.0000	0.0000
Sector Three	1.1677	1.1633 (dn 0.0044)	0.0000	0.0000
Sector Four	0.3838	0.3920 (up 0.0082)	0.1345	0.0983
Sector Five	1.4595	1.26460 (dn 0.1949)	0.0000	0.0000
Sector Six	0.6482	0.8421 (up 0.1759)	0.4121	0.1257
Sector Seven	0.2728	0.3438 (up 0.071)	0.0203	0.0965
Sector Eight	0.3959	0.41480 (up 0.0189)	0.1895	0.1561
Sector Nine	1.1628	1.17360 (up 0.0108)	0.0000	0.0000

Table 6 – Sector One – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector One for Sector Two, Sector Three, Sector Five and Sector Nine; and Sector Eight and Sector Six efficiencies are most like those of Sector One. The other comparisons are weak.

4.2.3 SECTOR TWO DISCUSSION – INDUSTRIALS

The log trend lines flattened during the bear market year for the sector as a whole and the upper decile efficiency firms with low Governance Scores fared better with respect to

efficiency during the downturn. Sector Two upper decile efficiency firms report a range of Governance Scores similar to those across the entire sector.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.2926	same
Sector One	12.73	same	.1373	same
Sector Two	13.40	same	--	--
Sector Three	14.27	14.30 (up 0.03)	.2803	.2694
Sector Four	13.39	13.23 (dn 0.16)	0.9845	0.7823
Sector Five	14.65	same	0.0804	same
Sector Six	16.89	same	0.0302	same
Sector Seven	13.88	same	0.6064	same
Sector Eight	13.10	same	0.6485	same
Sector Nine	12.89	same	0.4371	same

Table 7 – Sector Two – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.0276	same
Sector One	30.68	same	.8615	same
Sector Two	30.44	same	--	--
Sector Three	30.86	30.72 (dn 0.14)	0.8536	0.9039
Sector Four	29.10	29.08 (dn 0.02)	0.5320	0.4750
Sector Five	36.44	same	0.0185	same
Sector Six	40.39	same	0.0395	same
Sector Seven	38.24	same	0.0107	same
Sector Eight	31.42	same	0.6252	same
Sector Nine	28.16	same	0.2507	same

Table 8 – Sector Two – Mean Firm Scores and t-tests

Sector Two is sixth place for Mean Efficiency Score and holds the lowest Mean Board score (fewest average board members) and holds the seventh lowest firm score out of the ten sectors. This shows an average trend toward firms that are more connected than in other sectors. Subtracting the mean of the Board Score of Sector One (13.40) from the mean of the Firm Score of Sector One (30.44) producing a difference of means of 17.04. This Board Score translates to a an average board of one CEO and on average nearly eleven and a half directors, the directors and CEO then hold collectively nearly 17 other board seats on average.

A comparison of the efficiency of Sector Two 2007 (1.1576) and Sector Two 2008 (1.1665) with the remaining seven sectors and their efficiencies and t-test scores with respect to the Sector Two Data gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.0000	0.0000
Sector One	0.4919	0.5322 (up 0.0403)	0.0000	0.0000
Sector Two	1.1576	1.1665 (up 0.0089)	--	--
Sector Three	1.1677	1.1633 (dn 0.0044)	0.9352	0.9795
Sector Four	0.3838	0.3920 (up 0.0082)	0.0000	0.0000
Sector Five	1.4595	1.26460 (dn 0.1949)	0.0642	0.4744
Sector Six	0.6482	0.8421 (up 0.1759)	0.0988	0.2059
Sector Seven	0.2728	0.3438 (up 0.071)	0.0000	0.0000
Sector Eight	0.3959	0.41480 (up 0.0189)	0.0000	0.0000
Sector Nine	1.1628	1.17360 (up 0.0108)	0.9646	0.9487

Table 9 – Sector Two – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies likely similar to Sector Two are Sector Three, Sector Nine and Sector Five in that order; and that Sector Six is considerably less similar efficiencies.

4.2.4 SECTOR THREE DISCUSSION – CONSUMER GOODS

From the log trend graphs we can see that the range of Governance Scores contracted during the economic decline and shifted from broad and concave up to narrow and concave down. Although mean efficiency dropped very slightly the upper decile efficiency firms performed better in the downturn.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.5840	.5577
Sector One	12.73	same	.0240	.0229
Sector Two	13.40	same	.2803	.2694
Sector Three	14.27	14.30 (up 0.03)	--	--
Sector Four	13.39	13.23 (dn 0.16)	0.2958	0.1672
Sector Five	14.65	same	0.7069	0.7320
Sector Six	16.89	same	0.1404	0.1487
Sector Seven	13.88	same	0.7187	0.7011
Sector Eight	13.10	same	0.2447	0.2382
Sector Nine	12.89	same	0.0941	0.0905

Table 10 – Sector Three – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.1386	.1248
Sector One	30.68	same	.9284	.9851
Sector Two	30.44	same	.8536	.9039
Sector Three	30.86	30.72 (dn 0.14)	--	--
Sector Four	29.10	29.08 (dn 0.02)	0.4040	0.3933
Sector Five	36.44	same	0.1282	0.1230
Sector Six	40.39	same	0.0263	0.0258
Sector Seven	38.24	same	0.0313	.0301
Sector Eight	31.42	same	0.8451	0.0258
Sector Nine	28.16	same	0.2186	0.0301

Table 11 – Sector Three – Mean Firm Scores and t-tests

Sector Three mean efficiency moves from second place in 2007 to fourth place in 2008. the grouping of mean efficiencies is closely related and the 0.44% change in mean efficiency changes its ranking. Sector Three holds the third highest Mean Board score which increases by 0.03, from 14.27 to 14.30 from 2007 to 2008. This change occurs due to the loss of a firm with a low Board Score. The mean Board Score t-test shows that Sector Three Board Scores are most like Sector Five and Sector Seven Board Scores and least like Sector Nine. Sector Three holds the sixth highest Mean Firm score which decreases by 0.14, from 30.86 to 30.72 from 2007 to 2008. This change occurs due to the loss of a firm with a high Firm Score. Subtracting the mean of the 2007 Board Score of

Sector Three (14.27) from the mean of the 2007 Firm Score of Sector Three (30.86) producing a difference of means of 16.59. Subtracting the mean of the 2008 Board Score of Sector Three (14.30) from the mean of the 2008 Firm Score of Sector Three (30.72) producing a difference of means of 16.42. This Board Score translates to a an average board of one CEO and a little more than twelve directors for a counted score just over 14, the directors and CEO then hold collectively nearly 16 other board seats on average. This mean difference suggests that directors were less interconnected after losing a firm.

A comparison of the efficiency of Sector Three 2007 (1.1677) and Sector Three 2008 (1.1633) with the other nine sectors and their efficiencies and t-test scores with respect to the Sector Three Data gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.0000	0.0000
Sector One	0.4919	0.5322 (up 0.0403)	0.0000	0.0000
Sector Two	1.1576	1.1665 (up 0.0089)	0.9352	0.9795
Sector Three	1.1677	1.1633 (dn 0.0044)	--	--
Sector Four	0.3838	0.3920 (up 0.0082)	0.0000	0.0000
Sector Five	1.4595	1.26460 (dn 0.1949)	0.2262	0.6155
Sector Six	0.6482	0.8421 (up 0.1759)	0.0397	0.1793
Sector Seven	0.2728	0.3438 (up 0.071)	0.0000	0.0000
Sector Eight	0.3959	0.41480 (up 0.0189)	0.0000	0.0000
Sector Nine	1.1628	1.17360 (up 0.0108)	0.9728	0.9426

Table 12 – Sector Three – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Zero, Sector One, Sector Four, Sector Seven, Sector Eight and to a lesser extent Sector Six; and that Sector Nine is most likely similar to Sector Three followed by Sector Five. Sector Three mean efficiencies became more like Sector Five and Sector Six and less like Sector Nine.

4.2.5 SECTOR FOUR DISCUSSION – HEALTHCARE

Sector Four comparisons proceed similarly to Sector Three because the sample size changes. Several firms entered the market in Sector Four in 2008 changing the Board Scores and Firm Scores. The upper decile sector four firm log trends remained concave down and flattened only slightly during the decline. The log trends for the entire sector remained concave up and flattened only slightly during the decline. Further the log trends for Sector Four correlate very poorly to the trend line. The stronger correlation to the upper decile log trend may be due to the 90% smaller data set.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.3667	.1889
Sector One	12.73	same	.2859	.3675
Sector Two	13.40	same	.9845	.7823
Sector Three	14.27	14.30 (up 0.03)	.2958	.1672
Sector Four	13.39	13.23 (dn 0.16)	--	--
Sector Five	14.65	same	0.1563	0.0748
Sector Six	16.89	same	0.0130	0.0054
Sector Seven	13.88	same	0.5761	0.4200
Sector Eight	13.10	same	0.7475	0.8722
Sector Nine	12.89	same	0.4746	0.5987

Table 13 – Sector Four – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.0117	.0045
Sector One	30.68	same	.4016	.3376
Sector Two	30.44	same	.5320	.4750
Sector Three	30.86	30.72 (dn 0.14)	.4040	.3933
Sector Four	29.10	29.08 (dn 0.02)	--	--
Sector Five	36.44	same	0.0332	0.0161
Sector Six	40.39	same	0.0047	0.0018
Sector Seven	38.24	same	0.0045	0.0015
Sector Eight	31.42	same	0.3837	0.3218
Sector Nine	28.16	same	0.6444	0.6151

Table 14 – Sector Four – Mean Firm Scores and t-tests

Sector Four mean efficiency is the lowest of all sectors. Sector Four holds the seventh highest Mean Board score which decreases by 0.16, from 13.39 to 14.23 from 2007 to 2008. Sector Four holds the lowest Mean Firm score which decreases by 0.02, from 29.10 to 29.08 from 2007 to 2008. These come from the newly listed firms having lower mean Board Scores and lower mean Firm Scores than the previous means. The mean Board Score t-test shows that Sector Four Board Scores are most like Sector Eight Board Scores and least like Sector Six. Subtracting the mean of the 2007 Board Score of Sector Four (13.39) from the mean of the 2007 Firm Score of Sector Four (29.10) producing a difference of means of 15.71. Subtracting the mean of the 2008 Board Score of Sector Three (13.23) from the mean of the 2008 Firm Score of Sector Three (29.08) producing a

difference of means of 15.85. The directors and CEO then hold collectively nearly 16 other board seats on average. The difference on means suggests that directors were more interconnected with the additional new firms.

A comparison of the efficiency of Sector Four 2007 (0.3838) and Sector Four 2008 (0.3920) with the remaining six sectors and their efficiencies and t-test scores with respect to the other sectors gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.4148	0.3206
Sector One	0.4919	0.5322 (up 0.0403)	0.1345	0.0983
Sector Two	1.1576	1.1665 (up 0.0089)	0.0000	0.0000
Sector Three	1.1677	1.1633 (dn 0.0044)	0.0000	0.0000
Sector Four	0.3838	0.3920 (up 0.0082)	--	--
Sector Five	1.4595	1.26460 (dn 0.1949)	0.0000	0.0000
Sector Six	0.6482	0.8421 (up 0.1759)	0.0811	0.0074
Sector Seven	0.2728	0.3438 (up 0.071)	0.1399	0.6082
Sector Eight	0.3959	0.41480 (up 0.0189)	0.8836	0.8010
Sector Nine	1.1628	1.17360 (up 0.0108)	0.0000	0.0000

Table 15 – Sector Four – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Four for Sector To, Sector Three, Sector Five, Sector Nine, and to a lesser extent Sector Six; and that

Sector Four is most likely similar to Sector Eight. Sector Four mean efficiencies became more like Sector Seven and less like and Sector Six and Sector Eight from 2007 to 2008.

4.2.6 SECTOR FIVE DISCUSSION – CONSUMER SERVICES

The Sector Five log trend lines remained concave down for the entire data set and for the upper decile efficiency in 2008. The log trend upper decile efficiency was concave up in 2007. This leads us to believe that the upper decile efficient firms with lower Governance Scores performed better in the bull market than in the bear market. The outlier firm with a governance score of 116.5 may be caused by dual reporting of a single particularly interconnected firm. This firm may also be structured as its own business and a firm for holding its assets. The magnitude of this outlier may prove of interest to those choosing to refine the data. This potential anomaly was in the data base and preserved to remove human factors from the study.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.2205	same
Sector One	12.73	same	.0007	same
Sector Two	13.40	same	.0804	same
Sector Three	14.27	14.30 (up 0.03)	.7069	.7320
Sector Four	13.39	13.23 (dn 0.16)	0.1563	0.0748
Sector Five	14.65	same	--	--
Sector Six	16.89	same	0.2563	same
Sector Seven	13.88	same	0.5062	same
Sector Eight	13.10	same	0.0664	same
Sector Nine	12.89	same	0.0319	same

Table 16 – Sector Five – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.2389	same
Sector One	30.68	same	.0032	same
Sector Two	30.44	same	.0185	same
Sector Three	30.86	30.72 (dn 0.14)	.1282	.1230
Sector Four	29.10	29.08 (dn 0.02)	0.0332	0.0161
Sector Five	36.44	same	--	--
Sector Six	40.39	same	0.6154	same
Sector Seven	38.24	same	0.7033	same
Sector Eight	31.42	same	0.0777	same
Sector Nine	28.16	same	0.0079	same

Table 17 – Sector Five – Mean Firm Scores and t-tests

Sector Five is second highest of ten sectors for Board Score and third highest of ten sectors for Firm Score. It is also the highest ranked sector for mean efficiency.

Subtracting the mean of the Board Score of Sector Five (14.65) from the mean of the Firm Score of Sector Five (36.44) producing a difference of means of 21.79. This Board Score translates to a an average board of one CEO and nearly thirteen directors for a counted score nearing 15, the directors and CEO of a given firm on average hold collectively nearly 22 other board seats on average.

A comparison of the efficiency of Sector Five 2007 (1.4595) and Sector Five 2008 (1.2646) with the other sectors and their efficiencies and t-test scores for both gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.0000	0.0000
Sector One	0.4919	0.5322 (up 0.0403)	0.0000	0.0000
Sector Two	1.1576	1.1665 (up 0.0089)	0.0642	0.4744
Sector Three	1.1677	1.1633 (dn 0.0044)	0.2262	0.6155
Sector Four	0.3838	0.39200 (up 0.0082)	0.0000	0.0000
Sector Five	1.4595	1.2646 (dn 0.1949)	--	--
Sector Six	0.6482	0.8421 (up 0.1759)	0.1981	0.3387
Sector Seven	0.2728	0.3438 (up 0.071)	0.0002	0.0003
Sector Eight	0.3959	0.41480 (up 0.0189)	0.0000	0.0000
Sector Nine	1.1628	1.17360 (up 0.0108)	0.1675	0.6031

Table 18 – Sector Five – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Five for any of the other sectors and that Sector Five efficiencies are most like those of Sector Two, Sector Three and Sector Nine and considerably more so in a bear market.

4.2.7 SECTOR SIX DISCUSSION – TELECOMMUNICATIONS

Sector Six has a sample set size of $n=9$. It is one of the more interconnected sectors but the upper decile can not be calculated for obvious reasons. The highest efficiency firm is marked on the plot as the upper decile.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.0201	same
Sector One	12.73	same	.0035	same
Sector Two	13.40	same	.0302	same
Sector Three	14.27	14.30 (up 0.03)	.1404	.1487
Sector Four	13.39	13.23 (dn 0.16)	0.0130	0.0054
Sector Five	14.65	same	0.2563	same
Sector Six	16.89	same	--	--
Sector Seven	13.88	same	0.0895	same
Sector Eight	13.10	same	0.0709	same
Sector Nine	12.89	same	0.0070	same

Table 19 – Sector Six – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.1117	same
Sector One	30.68	same	.0249	same
Sector Two	30.44	same	.0395	same
Sector Three	30.86	30.72 (dn 0.14)	.0263	.0258
Sector Four	29.10	29.08 (dn 0.02)	0.0047	0.0018
Sector Five	36.44	same	0.6154	same
Sector Six	40.39	same	--	--
Sector Seven	38.24	same	0.7484	same
Sector Eight	31.42	same	0.1400	same
Sector Nine	28.16	same	0.0054	same

Table 20 – Sector Six – Mean Firm Scores and t-tests

Sector Six is highest of ten sectors for Board Score and highest of ten sectors for Firm Score. Strangely it is the fifth highest for efficiency. If we consider the treatment of averages to be representative of the sector subtracting the mean of the Board Score of Sector Six (16.89) from the mean of the Firm Score of Sector Zero (40.39) producing a difference of means of 23.5. This Board Score translates to a an average board of one CEO and roughly Fifteen directors for a counted score of nearly 17, the directors and CEO then hold collectively 23.5 other board seats on average.

A comparison of the efficiency of Sector Six 2007 (.6482) and Sector Six 2008 (.8421) with the remaining nine sectors and their efficiencies and t-test scores gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.1866	0.0068
Sector One	0.4919	0.5322 (up 0.0403)	0.4121	0.1257
Sector Two	1.1576	1.1665 (up 0.0089)	0.0988	0.2059
Sector Three	1.1677	1.1633 (dn 0.0044)	0.0397	0.1793
Sector Four	0.3838	0.39200 (up 0.0082)	0.0811	0.0074
Sector Five	1.4595	1.26460 (dn 0.1949)	0.1981	0.3387
Sector Six	0.6482	0.8421 (up 0.1759)	--	--
Sector Seven	0.2728	0.3438 (up 0.071)	0.0001	0.0014
Sector Eight	0.3959	0.41480 (up 0.0189)	0.2139	0.0348
Sector Nine	1.1628	1.17360 (up 0.0108)	0.1257	0.2501

Table 21 – Sector Six – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are least likely similar to Sector Six for Sector Seven and became less likely similar to Sector One, Sector Four, Sector Eight as Sector Six efficiency rose in 2008. Sector Six efficiencies are most like those of Sector One in 2007 and Sector Five in 2008.

4.2.8 SECTOR SEVEN DISCUSSION – UTILITIES

Sector Seven has only three firms in the upper decile for efficiency and this is a warning about using the log regression for a small data set. While 2007 and 2008 efficiencies have log trend lines that are concave down, similar though slightly flatter in 2007 comparing the upper decile trend lines is bizarre because of a sharp change and an outlier in 2008

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.9682	same
Sector One	12.73	same	.1539	same
Sector Two	13.40	same	.6064	same
Sector Three	14.27	14.30 (up 0.03)	.7187	.7011
Sector Four	13.39	13.23 (dn 0.16)	0.5761	0.4200
Sector Five	14.65	same	0.5062	same
Sector Six	16.89	same	0.0895	same
Sector Seven	13.88	same	--	--
Sector Eight	13.10	same	0.5101	same
Sector Nine	12.89	same	0.2682	same

Table 22 – Sector Seven – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.0926	same
Sector One	30.68	same	.0036	same
Sector Two	30.44	same	.0107	same
Sector Three	30.86	30.72 (dn 0.14)	.0313	.0301
Sector Four	29.10	29.08 (dn 0.02)	0.0045	0.0015
Sector Five	36.44	same	0.7033	same
Sector Six	40.39	same	0.7484	same
Sector Seven	38.24	same	--	--
Sector Eight	31.42	same	0.0643	same
Sector Nine	28.16	same	0.0015	same

Table 23 – Sector Seven – Mean Firm Scores and t-tests

Sector Seven is fifth highest of ten sectors for Board Score and second highest of ten sectors for Firm Score. Strangely it is the lowest mean efficiency. If we consider the treatment of averages to be representative of the sector subtracting the mean of the Board Score of Sector Zero (13.88) from the mean of the Firm Score of Sector Zero (38.24) producing a difference of means of 24.36 . This Board Score translates to a an average board of one CEO and nearly 12 directors for a counted Board Score approaching 14, the directors and CEO then hold collectively over 24 other board seats on average. This does show a sector with the second highest interconnectivity and a median average board size with lowest efficiency.

A comparison of the efficiency of Sector Seven 2007 (.2728) and Sector Seven 2008 (.3438) with the other sectors gives the following table:

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.0428	0.1667
Sector One	0.4919	0.5322 (up 0.0403)	0.0203	0.0965
Sector Two	1.1576	1.1665 (up 0.0089)	0.0000	0.0000
Sector Three	1.1677	1.1633 (dn 0.0044)	0.0000	0.0000
Sector Four	0.3838	0.39200 (up 0.0082)	0.1399	0.6082
Sector Five	1.4595	1.26460 (dn 0.1949)	0.0002	0.0003
Sector Six	0.6482	0.8421 (up 0.1759)	0.0001	0.0014
Sector Seven	0.2728	0.3438 (up 0.071)	--	--
Sector Eight	0.3959	0.41480 (up 0.0189)	0.2184	0.5294
Sector Nine	1.1628	1.17360 (up 0.0108)	0.0000	0.0000

Table 24 – Sector Seven – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Seven for Sector Two, Sector Three or Sector Nine; and that Sector Four and Sector Eight efficiencies are only somewhat more like those of Sector Seven. Sector Four and Sector Eight both become more like sector seven through 2008.

4.2.9 SECTOR EIGHT DISCUSSION – FINANCIALS

The Sector Eight log trend lines remained concave up for the entire data set and for the upper decile efficiency in 2007. The log trend upper decile efficiency was concave down in 2008. This leads us to believe that the upper decile efficient firms with lower Governance Scores performed better in the bull market than in the bear market. The log trend lines show poor correlation to the data.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.1612	same
Sector One	12.73	same	.4781	same
Sector Two	13.40	same	.6485	same
Sector Three	14.27	14.30 (up 0.03)	.2447	.2382
Sector Four	13.39	13.23 (dn 0.16)	0.7475	0.8722
Sector Five	14.65	same	0.0664	same
Sector Six	16.89	same	0.0709	same
Sector Seven	13.88	same	0.5101	same
Sector Eight	13.10	same	--	--
Sector Nine	12.89	same	0.8068	same

Table 25 – Sector Eight – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.1775	same
Sector One	30.68	same	.6345	same
Sector Two	30.44	same	.6252	same
Sector Three	30.86	30.72 (dn 0.14)	.2186	.2491
Sector Four	29.10	29.08 (dn 0.02)	0.3837	0.3218
Sector Five	36.44	same	0.0777	same
Sector Six	40.39	same	0.1400	same
Sector Seven	38.24	same	0.0643	same
Sector Eight	31.42	same	--	--
Sector Nine	28.16	same	0.1768	same

Table 26 – Sector Eight – Mean Firm Scores and t-tests

Sector Eight is ranked eighth of ten sectors for Board Score and fifth of ten sectors for Firm Score. It is eighth place in terms for efficiency. The mean of the Board Score of Sector Eight (13.10) from the mean of the Firm Score of Sector Eight (31.42) producing a difference of means of 18.32. This mean Board Score, equivalent to one CEO and roughly 11 directors for a counted score of just over 13, the directors and CEO then hold collectively over 18 other board seats on average.

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.5469	0.5371
Sector One	0.4919	0.5322 (up 0.0403)	0.1895	0.1561
Sector Two	1.1576	1.1665 (up 0.0089)	0.0000	0.0000
Sector Three	1.1677	1.1633 (dn 0.0044)	0.0000	0.0000
Sector Four	0.3838	0.39200 (up 0.0082)	0.8836	0.8010
Sector Five	1.4595	1.26460 (dn 0.1949)	0.0000	0.0000
Sector Six	0.6482	0.8421 (up 0.1759)	0.2139	0.0348
Sector Seven	0.2728	0.3438 (up 0.071)	0.2184	0.5294
Sector Eight	0.3959	0.4148 (up 0.0189)	--	--
Sector Nine	1.1628	1.1736 (up 0.0108)	0.0000	0.0000

Table 27 – Sector Eight – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Eight for Sector Two, Sector Three, Sector Five and Sector Nine; and that Sector Eight efficiencies are most like those of Sector Four and to a lesser extent Sector Zero. In light of the Firm Scores and Board Scores and the Shifts observed in Sector Three and Sector Four the change in efficiencies are small and compared to Sector Eight.

4.2.10 SECTOR NINE DISCUSSION – TECHNOLOGY

Sector Nine maintained nearly flat, slight concave up, log trend lines for 2007 and 2008 for Governance Score vs. efficiency. The upper decile performers changed little and trend lines remained concave down and limited to Governance scores between 5 and 27 as opposed to the governance scores for the whole of Sector Nine which extend as high as 44.6.

	2007 Board Score	2008 Board Score	t-test 2007	t-test 2008
Sector Zero	13.91	same	.0590	same
Sector One	12.73	same	.7647	same
Sector Two	13.40	same	.4371	same
Sector Three	14.27	14.30 (up 0.03)	.0941	.0905
Sector Four	13.39	13.23 (dn 0.16)	0.4746	0.5987
Sector Five	14.65	same	0.0319	same
Sector Six	16.89	same	0.0070	same
Sector Seven	13.88	same	0.2682	same
Sector Eight	13.10	same	0.8068	same
Sector Nine	12.89	same	--	--

Table 28 – Sector Nine – Mean Board Scores and t-tests

	2007 Firm Score	2008 Firm Score	t-test 2007	t-test 2008
Sector Zero	33.80	same	.0012	same
Sector One	30.68	same	.1374	same
Sector Two	30.44	same	.2507	same
Sector Three	30.86	30.72 (dn 0.14)	.2186	.2491
Sector Four	29.10	29.08 (dn 0.02)	0.6444	0.6151
Sector Five	36.44	same	0.0079	same
Sector Six	40.39	same	0.0054	same
Sector Seven	38.24	same	0.0015	same
Sector Eight	31.42	same	0.1768	same
Sector Nine	28.16	same	--	--

Table 29 – Sector Nine – Mean Firm Scores and t-tests

Sector Nine is ranked ninth of ten sectors for Board Score and lowest of ten sectors for Firm Score. It moves from third place to second place in terms of efficiency. The mean of the Board Score of Sector Nine (12.89) from the mean of the Firm Score of Sector Nine (28.16) producing a difference of means of 15.27. This mean Board Score, equivalent to one CEO and roughly 11 directors for a counted score of just under 13, the directors and CEO then hold collectively over 15 other board seats on average.

	2007 Efficiency	2008 Efficiency	t-test 2007	t-test 2008
Sector Zero	0.4347	0.4548 (up 0.0201)	0.0000	0.0000
Sector One	0.4919	0.5322 (up 0.0403)	0.0000	0.0000
Sector Two	1.1576	1.1665 (up 0.0089)	0.9646	0.9487
Sector Three	1.1677	1.1633 (dn 0.0044)	0.9728	0.9426
Sector Four	0.3838	0.39200 (up 0.0082)	0.0000	0.0000
Sector Five	1.4595	1.26460 (dn 0.1949)	0.1675	0.6031
Sector Six	0.6482	0.8421 (up 0.1759)	0.1257	0.2501
Sector Seven	0.2728	0.3438 (up 0.071)	0.0000	0.0000
Sector Eight	0.3959	0.41480 (up 0.0189)	0.0000	0.0000
Sector Nine	1.1628	1.17360 (up 0.0108)	--	--

Table 30 – Sector Nine – Mean Efficiencies and t-tests

The t-test scores show that the efficiencies are not likely similar to Sector Nine for Sector Zero, Sector One, Sector Four, Sector Seven and Sector Eight; and that Sector Nine efficiencies are most like those of Sector Three and Sector Two.

CHAPTER FIVE – CONCLUSION

Capturing potential shirking behavior of directors as an Agency Cost caused by an overabundance of board interconnections proves to be an incomplete assessment of inefficiency and perhaps agency costs as well. It is readily observed from the plots of Governance Score vs. Firm Efficiency that there are four statements that can be made. First, there is a pronounced lack of high efficiency firms with Governance Scores at or even near zero where agency costs from shirking would be hypothetically minimized and where efficiencies would be thought to be high. Firms with upper decile efficiencies have governance scores that are as low as 4 and as high as 30 and the breadth of the upper decile sets varies from sector to sector. There is a lack of high efficiency firms with Governance Scores over 30.

What is missing from this study is perhaps an adequate way to capture information on ownership, control and voting shares and market capitalization. Agency Costs from shirking and excessively high Governance Scores are more likely dictated by owners and voting shareholders than dictated by the lack of attention to firm management by an overly connected board. This places the emphasis back on control by capital.

5.1 FUTURE RESEARCH

A next step to explore Agency Costs and board structure would be to look at Market Capitalization, Ownership Structure and Voting Shares. Firms with excessively high Governance Scores may have a particular controlling ownership that allows shirking, perquisite consumption and over connection of the board of directors. These could indicate a systemic lack of accountability to shareholders. The current definition of Agency Costs comes back to the assignment of agency by owners; with a publicly traded firm the agency is assigned by voting shares, the prevailing will in the ownership structure, and not necessarily by owners. Trends in voting share and non voting share valuation may point to poor governance as control of the voting shares may be more apt to affect perquisite consumption. This distinction was not uncovered in the literature review.

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Appendix I – Director Position Scores

Table A1	Actual Directorship Titles and Assigned Governance Scores	
ACTING CHIEF FINANCIAL OFFICER		1
ACTING CHIEF OPERATING OFFICER		1
ACTING CORPORATE SECRETARY		0
ASSISTANT CORPORATE SECRETARY		0
ASSISTANT CORPORTE SECRETARY		0
ASSISTANT SECRETARY		0
ASSISTANT TREASURER		0
ASSISTANT VICE PRESIDENT		1
ASSOCIATE CORPORATE SECRETARY		0
ASSOCIATE GENERAL COUNSEL		0
C.E.O.		2
CEO		2
CFO		1
CHAIRMAN		1
CHAIRMAN - BOARD OF DIRECTORS		1
CHAIRMAN - BOARD OF TRUSTEES		1
CHAIRMAN - STONEHAM ADMINISTRATION INC.		1
CHAIRMAN & CEO		2
CHAIRMAN & CO-CHIEF EXECUTIVE OFFICER		2
CHAIRMAN & PRESIDENT		1
CHAIRMAN AND CEO		2
CHAIRMAN AND CHIEF EXECUTIVE OFFICER, NATIONAL BANK FINANCIAL GROUP, CHAIRMAN, NATCAN INVESTMENT MANAGEMENT INC. AND SENIOR VICE PRESIDENTE, NBC		2
CHAIRMAN AUDIT COMMITTEE		1
CHAIRMAN EXECUTIVE COMMITTEE		1
CHAIRMAN OF ARBOR MEMORIAL		1
CHAIRMAN OF BOARD		1
CHAIRMAN OF BOARD DIRECTOR		1
CHAIRMAN OF BOARD OF DIRECTORS		1
CHAIRMAN OF STONEHAM DRILLING INC		1
CHAIRMAN OF TEH BOARD		1
CHAIRMAN OF THE AUDIT COMMITTEE		1
CHAIRMAN OF THE BOARD		1
CHAIRMAN OF THE BOARD (INDEPENDENT TRUSTEE)		0
CHAIRMAN OF THE BOARD DIRECTOR		1
CHAIRMAN OF THE BOARD DIRECTORS		1
CHAIRMAN OF THE BOARD OF DIRECTORS		1
CHAIRMAN OF THE BOARD OF TRUSTEE		1
CHAIRMAN OF THE BOARD OF TRUSTEES		1
CHAIRMAN OF THE TRUSTEES		1

CHAIRPERSON OF THE BOARD	1
CHEIF EXECUTIVE OFFICER	2
CHIEF FINANCIAL OFFICER	1
CHIEF EXECUTIVE OFFICER	1
CHIEF EXECUTIVE	2
CHIEF EXECUTIVE DIRECTOR	2
CHIEF EXECUTIVE OFFICER	2
CHIEF EXECUTIVE OFFICER	2
CHIEF EXECUTIVE OFFICER	2
CHIEF EXECUTIVE OFFICER - MEAT PRODUCTS GROUP	2
CHIEF EXECUTIVE OFFICER,	2
CHIEF EXECUTIVE OFFICERS	2
CHIEF FINANCIAL OFFICER	1
CHIEF FINANCIAL OFFICER	1
CHIEF FINANCIAL OFFICER, EXECUTIVE VICE PRESIDENT	1
CHIEF FINANCIAL OFFICER, SENIOR VICE PRESIDENT	1
CHIEF FINANCIAL OFFICER, TREASURER, SECRETARY	1
CHIEF LEGAL OFFICER	1
CHIEF OPERATING OFFICER	1
CHIEF OPERATING OFFICER - BAKERY PRODUCTS GROUP	1
CHIEF OPERATING OFFICER (UNDERGROUND OPERATIONS)	1
CHIEF OPERATING OFFICER, DIRECTOR	1
CHIEF OPERATING OFFICER, OPERATIONS & REFINING	1
CHIEF OPERATING OFFICER-BLACKBERRY	1
CHIEF OPERATING OFFICER-DOWNSTREAM	1
CHIEF OPERATING OFFICER-ELECTRICITY NAD MARKETING	1
CHIEF OPERATING OFFICER-PRODUCT DEVELOPMENT & MANUFACTURING	1
CHIEF OPERATING OFFICER-UPSTREAM	1
CHIEF OPERATING OFFICER	1
CHIEF TECHNICAL / TECHNOLOGY OFFICER	1
CHIEF TECHNOLOGY OFFICER	1
CO- CHAIRMAN	1
CO -CHIEF EXECUTIVE OFFICER	2
CO-CHAIRMAN	1
CO-CHAIRMAN OF THE BOARD	1
CO-CHIEF EXECUTIVE OFFICER	2
COMPANY SECRETARY	0
COMPTROLLER	0
CONTROLLER	0
CONTROLLER/COMPTROLLER	0
CORPORATE SECRETARY & DIRECTOR OF FINANCE	1
CO-PRESIDENT & CEO	2
CO-PRESIDENT AND CEO	2
CORP SECRETARY	0

CORPORATE CONTROLLER	0
CORPORATE COUNSEL	1
CORPORATE DIRECTOR	1
CORPORATE SECRETARY	0
CORPORATE TREASURER	0.5
CORPORATE VICE PRESIDENT	1
CORPORATE VICE PRESIDENT-FINANCE & ADMINISTRATION	1
CORPORATE SECRETARY	0
CORPORATE DIRECTOR	1
DEPUTY CHAIRMAN	0.5
DIRECTOR	1
DIRECTOR	1
DIRECTOR	1
DIRECTOR - INVESTOR RELATIONS	1
DIRECTOR - STONEHAM ADMINISTRATION INC	1
DIRECTOR - STONEHAM ADMINISTRATION INC	1
DIRECTOR - STONEHAM ADMINISTRATION INC.	1
DIRECTOR - STONEHAM ADMINISTRATION INC.	1
DIRECTOR - STONEHAM DRILLING INC	1
DIRECTOR - STONEHAM DRILLING INC	1
DIRECTOR - STONEHAM DRILLING INC & STONEHAM ADMINISTRATION INC	1
DIRECTOR - STONEHAM DRILLING INC & STONEHAM ADMINISTRATION INC	1
DIRECTOR - STONEHAM DRILLING INC.	1
DIRECTOR AND CHAIRMAN OF THE BOARD	2
DIRECTOR EMERITUS	0.5
DIRECTOR OF FINANCE	1
DIRECTOR OF FINANCIAL REPORTING	1
DIRECTOR OF INVESTOR RELATIONS	1
DIRECTOR OF OPERATIONS	1
DIRECTOR, BUSINESS EXECUTIVE	1
DIRECTOR, INVESTOR RELATIONS	1
DIRECTOR, CORPORATE DEVELOPMENT	1
DIRECTOR/	1
DIRECTOR/MEMBER OF THE BOARD	1
DIRECTOR	1
DIRECTORS	1
DIRECTOR	1
DIRECTOR	1
DIRECTOR	1
DIRECTOR	1
ENGINEER	1
EXECUTIVE VICE PRESIDENT-FINANCE	1
EXECUTIVE CHAIRMAN	2

EXECUTIVE CHAIRMAN OF THE BOARD	2
EXECUTIVE DEPUTY CHAIRMAN	1
EXECUTIVE DIRECTOR	1
EXECUTIVE VICE CHAIRMAN	1
EXECUTIVE VICE CHAIRMAN OF THE BOARD	1
EXECUTIVE VICE PRECIDENT	1
EXECUTIVE VICE PRESIDENT	1
EXECUTIVE VICE PRESIDENT - AEROSPACE DIVISION	1
EXECUTIVE VICE PRESIDENT - CORPORATE SERVICES	1
EXECUTIVE VICE PRESIDENT - EXPLORATION	1
EXECUTIVE VICE PRESIDENT - FINANCE	1
EXECUTIVE VICE PRESIDENT - FINANCE & INFORMATION TECHNOLOGY	1
EXECUTIVE VICE PRESIDENT - FRONTIER AND INTERNATIONAL OPERATIONS	1
EXECUTIVE VICE PRESIDENT - GLOBAL RESEARCH AND DEVELOPMENT	1
EXECUTIVE VICE PRESIDENT - OPERATIONS	1
EXECUTIVE VICE PRESIDENT - SALES & MARKETING	1
EXECUTIVE VICE PRESIDENT & CHIEF FINANCIAL OFFICER	1
EXECUTIVE VICE PRESIDENT DOWNSTREAM	1
EXECUTIVE VICE PRESIDENT FINANCE	1
EXECUTIVE VICE PRESIDENT FINANCE & CORPORATE DEVELOPMENT	1
EXECUTIVE VICE PRESIDENT, CORPORATE	1
EXECUTIVE VICE PRESIDENT, CORPORATE DEVELOPMENT	1
EXECUTIVE VICE PRESIDENT, CORPORATE SERVICES	1
EXECUTIVE VICE PRESIDENT, ENGINEERING & CORPORATE DEVELOPMET	1
EXECUTIVE VICE PRESIDENT, EXPLORATION	1
EXECUTIVE VICE PRESIDENT, FINANCE & ADMINISTRATION	1
EXECUTIVE VICE PRESIDENT, FINANCE AND ADMINISTRATION	1
EXECUTIVE VICE PRESIDENT, LEGAL AFFAIRS	1
EXECUTIVE VICE PRESIDENT, OPERATIONS	1
EXECUTIVE VICE PRESIDENT-CORPORATE SERVICES	1
EXECUTIVE VICE PRESIDENT-FINANCE	1
EXECUTIVE VICE PRESIDENT-NORTH AMERICAN SALES	1
EXECUTIVE VICE-PRESIDENT	1
EXECVP, CORPORATE DEVELOPMENT	1
EXECVP, FINANCE	1
EXPLORATION MANAGER	1
FINANCE & CORPORATE AFFAIRS MANAGER	1
FINANCIAL CONTROLLER	0
FOUNDING CHAIRMAN	1
GENERAL COUNSEL	1

GENERAL MANAGER	0.5
GENERAL MANAGER - SYSTEMS DIVISION	0.5
GENERAL MANAGER - THE SCORE TELEVISION NETWORK LTD	0.5
GENERAL MANAGER, MINING	0.5
GENERAL MANAGER, NETWORK COMMUNICATIONS	0.5
GENRAL MANAGER	0.5
GROUP CHAIRMAN	1
GROUP HEAD WEALTH MANAGEMENT	1
GROUP PRESIDENT	1
GROUP SENIOR VICE PRESIDENT - PULP AND PAPER MANUFACTURING	1
GROUP TREASURER	1
GROUP VICE PRESIDENT	1
GROUP VICE PRESIDENT	1
GROUP VICE PRESIDENT - CORPORATE LAW	1
GROUP VICE PRESIDENT, CORPORATE RESOURCES	1
INDEPENDENT CHAIRMAN	1
INDEPENDENT DIRECTOR	1
INDEPENDENT GEOLOGIST CONSULTANT	0
INDEPENDENT OUTSIDE DIRECTOR	1
INDEPENDENT TRUSTEE	0.5
INTERIM CHIEF EXECUTIVE OFFICER	2
INTERIM CHIEF FINANCIAL OFFICER	1
INTERIM CHIEF FINANCIAL OFFICER AND SECRETARY	1
INTERIM PRESIDENT	1
INTERIM SECRETARY	0
INVESTOR RELATIONS	0
JOINT CORPORATE SECRETARY	0
JOINT SECRETARY	0
LEAD DIRECTOR	1
LEAD INDEPENDENT TRUSTEE	0.5
MANAGEMENT CONSULTANT	0.7
MANAGER - BUSINESS DEVELOPMENT	0.5
MANAGER - FINANCIAL REPORTING & ANALYSIS	0.5
MANAGER - INFORMATION SYSTEMS	0.5
MANAGER, INVESTOR RELATIONS	0.5
MANAGING DIRECTOR	0.5
MANAGING DIRECTOR - CORPORATE DEVELOPMENT	0.5
MANAGING DIRECTOR UTILITIES	0.5
MANAGING DIRECTOR, CORPORATE DEVELOPMENT	0.5
MEMBER	1
MEMBER OF THE BOARD	1
MEMBER OF THE BOARD OF DIRECTORS	1
MEMBER OF THE EXECUTIVE COMMITTEE	1
MEMBRE DU CONSEIL D'ADMINISTRATION	1

MINING EXECUTIVE	0.5
NON EXECUTIVE DIRECTOR	0
NON-EXECUTIVE CHAIRMAN	0
NON-EXECUTIVE CHAIRMAN OF THE BOARD	0
NON-EXECUTIVE DIRECTOR	0
OFFICER	1
OPERATIONS MANAGER	0.5
OUTSIDE DIRECTOR	0.7
PREMIER VICE PRESIDENT EXCUTIF, FINANCES, ADMINISTRATION ET DEVELOPPEMENT STRATEGIQUE ET CHEF DE LA DIRECTION FINANCIERE	1
PRESIDENT - ADB TECHNOLOGY GROUP	1
PRESIDENT - DISTRIBUTION PRODUCTS	1
PRESIDENT - MEAT PRODUCTS GROUP	1
PRESIDENT & CEO	2
PRESIDENT & CHIEF EXECUTIVE OFFICER	2
PRESIDENT & CO-CHIEF EXECUTIVE OFFICER	2
PRESIDENT & VICE-CHANCELLOR	1
PRESIDENT / DIRECTOR	1
PRESIDENT AND CEO	2
PRESIDENT AND CHIEF EXECUTIVE OFFICER	2
PRESIDENT, CHIEF EXECUTIVE OFFICER, DIRECTOR	2
PRESIDENT, RBC INSURANCE	1
PRESIDENT, RBC INVESTMENTS	1
PRESIDENT-ELECTRICITY AND MARKETING	1
PRESIDENT-TERRA GRAIN FUELS	1
PRINCIPAL FINANCIAL OFFICER, PRINCIPAL ACCOUNTING OFFICER	1
PROPOSED DIRECTOR	0
PROPOSED DIRECTOR	0
SECRETARY	0
SECRETARY OF THE BOARD	0
SECRETARY TREASURER	0
SENIOR EXECUTIVE VICE PRESIDENT	1
SENIOR VICE PRESIDENT	1
SENIOR VICE PRESIDENT - ADMINISTRATION	1
SENIOR VICE PRESIDENT - BUSINESS AND CORPORATE DEVELOPMENT	1
SENIOR VICE PRESIDENT - COMMERCIAL PRINTING PAPERS	1
SENIOR VICE PRESIDENT - CORPORATE AFFAIRS, CHIEF LEGAL OFFICER	1
SENIOR VICE PRESIDENT - CORPORATE AND REGULATORY AFFAIRS	1
SENIOR VICE PRESIDENT - CORPORATE DEVELOPMENT	1
SENIOR VICE PRESIDENT - CORPORATE DEVELOPMENT	1

SENIOR VICE PRESIDENT - ENGINEERING	1
SENIOR VICE PRESIDENT - EXPLORATION	1
SENIOR VICE PRESIDENT - FINANCE	1
SENIOR VICE PRESIDENT - FINANCE & ADMINISTRATION	1
SENIOR VICE PRESIDENT - FOREST PRODUCTS	1
SENIOR VICE PRESIDENT - HUMAN RESOURCES	1
SENIOR VICE PRESIDENT - HUMAN RESOURCES AND COMMUNICATIONS	1
SENIOR VICE PRESIDENT - INFORMATION TECHNOLOGY	1
SENIOR VICE PRESIDENT - MARKETING AND BUSINESS DEVELOPMENT	1
SENIOR VICE PRESIDENT - NETWORK EXPLORATION	1
SENIOR VICE PRESIDENT - NORTH AMERICAN NEWSPRINT	1
SENIOR VICE PRESIDENT - OPERATIONS	1
SENIOR VICE PRESIDENT - PLANNING	1
SENIOR VICE PRESIDENT - PLANNING AND PUBLIC AFFAIRS	1
SENIOR VICE PRESIDENT - PURCHASING & CORPORATE OPERATIONS	1
SENIOR VICE PRESIDENT - PURCHASING AND MARKETING	1
SENIOR VICE PRESIDENT - QUALITY CONTROL	1
SENIOR VICE PRESIDENT - RENTAL OPERATIONS	1
SENIOR VICE PRESIDENT - RESOURCES DIVISION	1
SENIOR VICE PRESIDENT - SALES AND MARKETING	1
SENIOR VICE PRESIDENT - SOUTHERN REGION MILLS	1
SENIOR VICE PRESIDENT - SPECIALTY MILLS AND CONVERTING OPERATIONS	1
SENIOR VICE PRESIDENT - SUPPLY CHAIN	1
SENIOR VICE PRESIDENT - THE SCORE TELEVISION NETWORK LTD	1
SENIOR VICE PRESIDENT - TRANSACTIONS AND ADMINISTRATION	1
SENIOR VICE PRESIDENT - WOOD PRODUCTS	1
SENIOR VICE PRESIDENT (DEVELOPMENT)	1
SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER	1
SENIOR VICE PRESIDENT CORPORATE	1
SENIOR VICE PRESIDENT FINANCE	1
SENIOR VICE PRESIDENT FINANCE AND CORPORATE AFFAIRS	1
SENIOR VICE PRESIDENT HUMAN RESOURCES AND CORPORATE COMMUNICATIONS	1
SENIOR VICE PRESIDENT- NORTHERN REGION MILLS	1
SENIOR VICE PRESIDENT OF MARKETING AND SALES	1
SENIOR VICE PRESIDENT -SCIENTIFIC AFFAIRS & CHIEF SCIENTIFIC OFFICER	1
SENIOR VICE PRESIDENT, BUSINESS DEVELOPMENT	1
SENIOR VICE PRESIDENT, CLIENT SERVICES	1
SENIOR VICE PRESIDENT, COMMERCIAL LENDING	1
SENIOR VICE PRESIDENT, FINANCE	1

SENIOR VICE PRESIDENT, FINANCE & ADMINISTRATION	1
SENIOR VICE PRESIDENT, GENERAL COUNSEL	1
SENIOR VICE PRESIDENT, HUMAN RESOURCES	1
SENIOR VICE PRESIDENT, INFORMATION TECHNOLOGY	1
SENIOR VICE PRESIDENT, LEASING	1
SENIOR VICE PRESIDENT, LEGAL AFFAIRS	1
SENIOR VICE PRESIDENT, REAL ESTATE FINANCE	1
SENIOR VICE PRESIDENT, RESEARCH & DEVELOPMENT	1
SENIOR VICE PRESIDENT, RISK MANAGEMENT	1
SENIOR VICE PRESIDENT, SCIENTIFIC AFFAIRS	1
SENIOR VICE PRESIDENT, STRATEGIC PLANNING AND VENTURE INVESTMENTS	1
SENIOR VICE PRESIDENT, SUPPLY CHAIN	1
SENIOR VICE PRESIDENT, MARKETING, OPERATION & CONSTRUCTIONS & DEVELOPMENT	1
SENIOR VICE PRESIDENT, OPERATIONS	1
SENIOR VICE PRESIDENT-FINANCE	1
SENIOR VICE PRESIDENT-WEST CANADA	1
SENIOR VICE-PRESIDENT	1
SENIOR VICE-PRESIDENT - DISTRIBUTION	1
SENIOR VICE-PRESIDENT FINANCE	1
SENIOR VICE-PRESIDENT, CORPORATE SERVICES	1
SENIOR VICE-PRESIDENT, HUMAN RESOURCES AND OPERATIONS	1
SENIOR VICE-PRESIDENT, PERSONAL BANKING AND WEALTH MANAGEMENT	1
SENIOR VICE-PRESIDENT, SPECIAL PROJECTS	1
SENIOR VICE-PRESIDENT-TECHNOLOGY	1
SENIOR VICE PRESIDENT-FINANCE	1
SPECIAL ADVISOR TO BOARD	1
TECHNICAL DIRECTOR	1
TREASURER	0
TRUSTEE	0.5
TRUSTEE OF THE FUND	0.5
TRUSTEES	0.5
UNRELATED OUTSIDE DIRECTOR	0.7
VICE CHAIR	1
VICE CHAIR OF THE BOARD	1
VICE CHAIRMAN	1
VICE CHAIRMAN - BOARD OF DIRECTOR	1
VICE CHAIRMAN & CFO	1
VICE CHAIRMAN OF THE BOARD	1
VICE CHAIRMAN OF THE BOARD DIRECTORS	1
VICE CHAIRMAN OF THE BOARD OF DIRECTORS	1
VICE PRESIDENT	1
VICE PRESIDENT - ADMINISTRATION	1

VICE PRESIDENT - BUSINESS DEVELOPMENT	1
VICE PRESIDENT - CHIEF ACCOUNTING OFFICER	1
VICE PRESIDENT - CORPORATE AFFAIRS	1
VICE PRESIDENT - CORPORATE AND LEGAL AFFAIRS	1
VICE PRESIDENT - CORPORATE DEVELOPMENT	1
VICE PRESIDENT - EASTERN OPERATIONS	1
VICE PRESIDENT - ENVIRONMENT & SUSTAINABLE DEVELOPMENT	1
VICE PRESIDENT - EXPLORATION	1
VICE PRESIDENT - INDUSTRIAL & COMMERCIAL PROPERTIES	1
VICE PRESIDENT - LEGAL	1
VICE PRESIDENT - LEGAL AFFAIRS	1
VICE PRESIDENT - MARINE	1
VICE PRESIDENT - NORTH AMERICA SILICONS	1
VICE PRESIDENT - OPERATIONS	1
VICE PRESIDENT - PERFORMANCE & RISK MANAGEMENT	1
VICE PRESIDENT - PRODUCT MANAGEMENT	1
VICE PRESIDENT - PUBLIC AND LEGAL AFFAIRS	1
VICE PRESIDENT - REGULATORY AFFAIRS	1
VICE PRESIDENT - REGULATORY AFFAIRS AND COMPLIANCE	1
VICE PRESIDENT - RESEARCH & DEVELOPMENT	1
VICE PRESIDENT - SALES AND MARKETING	1
VICE PRESIDENT - STRATEGY & CORPORATE DEVELOPMENT	1
VICE PRESIDENT - TREASURER	1
VICE PRESIDENT - WESTERN OPERATIONS	1
VICE PRESIDENT & SECRETARY	1
VICE PRESIDENT AND ASSISTANT SECRETARY	1
VICE PRESIDENT AND CHIEF FINANCIAL OFFICER	1
VICE PRESIDENT AND CONTROLLER	1
VICE PRESIDENT AND GM	1
VICE PRESIDENT AND SECRETARY	1
VICE PRESIDENT BUSINESS DEVELOPMENT	1
VICE PRESIDENT CONTROLLER	1
VICE PRESIDENT ENGINEERING	1
VICE PRESIDENT EXPLORATIONS	1
VICE PRESIDENT FINANCE	1
VICE PRESIDENT FINANCE AND ADMINISTRATION	1
VICE PRESIDENT HUMAN RESOURCES	1
VICE PRESIDENT INVESTMENTS	1
VICE PRESIDENT INVESTOR RELATIONS	1
VICE PRESIDENT INVESTOR RELATIONS AND CORPORATE DEVELOPMENT, CORPORATE SECRETARY	1
VICE PRESIDENT LAW	1
VICE PRESIDENT LEGAL AFFAIRS AND CORPORATE SECRETARY	1
VICE PRESIDENT MANUFACTURING	1
VICE PRESIDENT NUNAVUT AFFAIRS	1

VICE PRESIDENT OF ADMINISTRATION	1
VICE PRESIDENT OF EXPLORATIONS	1
VICE PRESIDENT OF FINANCE AND ADMINISTRATION	1
VICE PRESIDENT OF MARKETING	1
VICE PRESIDENT OPERATIONS	1
VICE PRESIDENT SALES AND MARKETING	1
VICE PRESIDENT STEVEDOING	1
VICE PRESIDENT -VISUALISATION AND NEW TECHNOLOGIES	1
VICE PRESIDENT, ACQUISITIONS	1
VICE PRESIDENT, CAPITAL MARKETS	1
VICE PRESIDENT, CONTROLLER	1
VICE PRESIDENT, CORPORATE DEVELOPMENT	1
VICE PRESIDENT, CORPORATE FINANCE	1
VICE PRESIDENT, CUSTOMER & CORPORATE BUSINESS DEVELOPMENT	1
VICE PRESIDENT, DEVELOPMENT	1
VICE PRESIDENT, DEVELOPMENT & INVESTMENT	1
VICE PRESIDENT, EASTERN DIVISION	1
VICE PRESIDENT, ENGINEERING	1
VICE PRESIDENT, EXPLORATION	1
VICE PRESIDENT, FINANCE	1
VICE PRESIDENT, FORESTRY AND ENVIRONMENT	1
VICE PRESIDENT, GEOSCIENCES AND LAND	1
VICE PRESIDENT, HEAVY OIL	1
VICE PRESIDENT, HUMAN RESOURCES	1
VICE PRESIDENT, INVESTOR RELATIONS	1
VICE PRESIDENT, INVESTOR RELATIONS AND COMMUNICATIONS	1
VICE PRESIDENT, LEGAL	1
VICE PRESIDENT, LEGAL AFFAIRS	1
VICE PRESIDENT, MARKETING & PRODUCT DEVELOPMENT	1
VICE PRESIDENT, MINING AND EXTRACTION	1
VICE PRESIDENT, OPERATIONS	1
VICE PRESIDENT, PAYROLL/ HUMAN RESOURCE MANAGEMENT	1
VICE PRESIDENT, PRODUCT DEVELOPMENT - VERNAKALANT	1
VICE PRESIDENT, PRODUCTION	1
VICE PRESIDENT, PUBLIC & INVESTOR RELATIONS	1
VICE PRESIDENT, RESOURCE DEVELOPMENT & BUSINESS STRATEGY	1
VICE PRESIDENT, TREASURY	1
VICE PRESIDENT, WESTERN DIVISION	1
VICE PRESIDENT,DEVELOPMENT	1
VICE PRESIDENT-CORPORATE DEVELOPMENT	1
VICE PRESIDENT-CORPORATE FINANCE	1
VICE PRESIDENTE EXECUTIVE, AFFAIRES CORPORATIVES ET SECRETAIRE	1

VICE PRESIDENT-FINANCE	1
VICE PRESIDENT-FINANCE & ADMINISTRATION	1
VICE PRESIDENT-FINANCE AND ADMINISTRATION	1
VICE PRESIDENT-INVESTOR RELATIONS	1
VICE PRESIDENT-OPERATION	1
VICE PRESIDENT-OPERATIONS	1
VICE PRESIDENT-OPERATIONS, PRESIDENT - SOUTH AMERICAN OPERATIONS	1
VICE PRESIDENT-SALES	1
VICE-CHAIRMAN	1
VICE-CHAIRMAN & CFO	1
VICE-CHAIRMAN & CHIEF INFORMATION OFFICER	1
VICE-CHAIRMAN RBC CAPITAL MARKETS	1
VICE-PRESIDENT	1
VICE-PRESIDENT / FINANCE / TREASURY / DIRECTOR	1
VICE-PRESIDENT EXECUTIF	1
VICE-PRESIDENT EXECUTIF ET TRESORIER	1
VICE-PRESIDENT EXECUTIF SERVICES FINANCIERS AUX PARTICULIERS	1
VICE-PRESIDENT OPERATIONS	1
VICE-PRESIDENT, FINANCE	1
VICE-PRESIDENT, QUALITY AND TECHNICAL AFFAIRS	1
VIVE PRESIDENT OF OPERATION	1
VP FINANCE AND ADMINISTRATION	1
VP INVESTOR RELATIONS	1
	1

Note that any novel directorship names or titles or spelling errors originating in the OSIRIS database have been preserved in the spreadsheet and allocated a position score based on best reasonable approximation.

Appendix II – Reinserted firms after April 2009

FIRM No.	FIRM NAME
47	NOREX EXPLORATION SERVICES INC.
52	CU INC
64	DETOUR GOLD CORPORATION
70	MIGAO CORPORATION
90	MEGA URANIUM LTD.
128	CHESSWOOD INCOME FUND
151	ZINCORE METALS INC.
259	ANVIL MINING LIMITED
263	AZURE DYNAMICS CORPORATION
326	YUKON-NEVADA GOLD CORP.
327	ATLANTIC POWER CORPORATION
334	CML HEALTHCARE INCOME FUND
363	EQUINOX MINERALS LIMITED
442	COMPUTER MODELLING GROUP LTD
447	HEROUX-DEVTEK INC.
482	SOUTH AMERICAN GOLD AND COPPER COMPANY LIMITED
494	INDUSTRIAL-ALLIANCE INSURANCE AND FINANCIAL SERVICES INC
499	FORMATION CAPITAL CORPORATION
501	PEMBINA PIPELINE INCOME FUND
514	HOME CAPITAL GROUP INC
573	CANADIAN HYDRO DEVELOPERS, INC.
579	VASOGEN INC
625	INSCAPE CORPORATION
668	BOYD GROUP INCOME FUND
744	ALTAGAS INCOME TRUST
746	CANADIAN ZINC CORPORATION
764	TRANSAT A.T.
766	DENISON MINES CORP.
769	GREYSTAR RESOURCES LIMITED
787	REKO INTERNATIONAL GROUP INC
790	QUEBECOR WORLD INC.
795	SUNCOR ENERGY INC.
806	OPPENHEIMER HOLDINGS INC
818	EMERA INC.
902	JAGUAR MINING INC.
922	MINCO GOLD CORPORATION
930	TIMBERWEST FOREST CORP
970	MAPLE LEAF FOODS INC

Note: This is a list of firms that were missed in the April 2009 data capture. They are recorded in case there is an anomaly generated by the late addition of this data.

Appendix III –Raw Results from the sector to sector comparisons

The following data tables are “screen capture” outputs from EViews. EViews is a Statistical package that has an unalterable font. The following 138 pages are image outputs.

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:28

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	443	3.025444	0.0026
Satterthwaite-Weich t-test*	363.1886	3.150147	0.0018
Anova F-test	(1, 443)	9.153313	0.0026
Welch F-test*	(1, 363.189)	9.923426	0.0018

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	143.0399	143.0399
Within	443	6922.812	15.62711
Total	444	7065.852	15.91408

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD1	287	12.72787	4.135991	0.244140
All	445	13.14854	3.989246	0.189108

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:27

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	284	1.054325	0.2926
Satterthwaite-Weich t-test*	238.1391	1.028668	0.3047
Anova F-test	(1, 284)	1.111602	0.2926
Welch F-test*	(1, 238.139)	1.058158	0.3047

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.30262	18.30262
Within	284	4676.083	16.46508
Total	285	4694.385	16.47153

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD2	128	13.40391	4.564247	0.403426
All	286	13.68497	4.058513	0.239985

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	200	-0.548467	0.5840
Satterthwaite-Welch t-test*	57.96729	-0.474151	0.6372
Anova F-test	(1, 200)	0.300816	0.5840
Welch F-test*	(1, 57.9673)	0.224819	0.6372

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	4.462004	4.462004
Within	200	2966.602	14.83301
Total	201	2971.064	14.78141

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD3	44	14.27273	4.666126	0.703445
All	202	13.99109	3.844660	0.270509

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:25

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	206	0.904576	0.3667
Satterthwaite-Welch t-test*	85.44198	0.925014	0.3576
Anova F-test	(1, 206)	0.818258	0.3667
Welch F-test*	(1, 85.442)	0.855650	0.3576

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	10.37527	10.37527
Within	206	2612.020	12.67971
Total	207	2622.395	12.66857

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD4	50	13.39000	3.445331	0.487243
All	208	13.78702	3.559294	0.246793

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:24

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	238	-1.228341	0.2205
Satterthwaite-Welch t-test*	116.4413	-1.074458	0.2848
Anova F-test	(1, 238)	1.508821	0.2205
Welch F-test*	(1, 116.441)	1.154460	0.2848

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	29.05875	29.05875
Within	238	4583.699	19.25924
Total	239	4612.757	19.30024

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD5	82	14.64634	5.614492	0.620017
All	240	14.16333	4.393204	0.283580

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:23

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	165	-2.348059	0.0201
Satterthwaite-Welch t-test*	8.420692	-1.655229	0.1346
Anova F-test	(1, 165)	5.513381	0.0201
Welch F-test*	(1, 8.42069)	2.739783	0.1346

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	75.42517	75.42517
Within	165	2257.264	13.68039
Total	166	2332.689	14.05234

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD6	9	16.88889	5.325515	1.775172
All	167	14.07305	3.748645	0.290079

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:20

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	0.039966	0.9682
Satterthwaite-Welch t-test*	35.71811	0.035589	0.9718
Anova F-test	(1, 185)	0.001597	0.9682
Welch F-test*	(1, 35.7181)	0.001267	0.9718

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.021905	0.021905
Within	185	2537.036	13.71371
Total	186	2537.058	13.64010

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD7	29	13.88276	4.253828	0.789916
All	187	13.90802	3.693250	0.270077

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:19

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	279	1.404901	0.1612
Satterthwaite-Welch t-test*	186.8202	1.322786	0.1875
Anova F-test	(1, 279)	1.973747	0.1612
Welch F-test*	(1, 186.82)	1.749782	0.1875

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	46.22426	46.22426
Within	279	6534.052	23.41954
Total	280	6580.276	23.50099

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD8	123	13.09512	6.075803	0.547837
All	281	13.55480	4.847782	0.289194

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:18

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	223	1.897699	0.0590
Satterthwaite-Weich t-test*	116.4028	1.840486	0.0682
Anova F-test	(1, 223)	3.601260	0.0590
Weich F-test*	(1, 116.403)	3.387390	0.0682

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	48.81810	48.81810
Within	223	3022.952	13.55584
Total	224	3071.770	13.71326

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD9	67	12.89403	3.878022	0.473776
All	225	13.60933	3.703142	0.246876

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:11

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	413	-1.488784	0.1373
Satterthwaite-Weich t-test*	223.7300	-1.433645	0.1531
Anova F-test	(1, 413)	2.218478	0.1373
Weich F-test*	(1, 223.73)	2.055338	0.1531

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	40.45553	40.45553
Within	413	7538.145	18.25217
Total	414	7578.601	18.30580

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD2	128	13.40391	4.564247	0.403426
All	415	12.93639	4.278528	0.210025

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:12

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	329	-2.267012	0.0240
Satterthwaite-Welch t-test*	53.86533	-2.074723	0.0428
Anova F-test	(1, 329)	5.139343	0.0240
Welch F-test*	(1, 53.8653)	4.304477	0.0428

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	91.05016	91.05016
Within	329	5828.664	17.71630
Total	330	5919.714	17.93853

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD3	44	14.27273	4.666126	0.703445
All	331	12.93323	4.235390	0.232798

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:14

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	335	-1.068853	0.2859
Satterthwaite-Welch t-test*	75.87357	-1.214939	0.2282
Anova F-test	(1, 335)	1.142447	0.2859
Welch F-test*	(1, 75.8736)	1.476077	0.2282

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.66820	18.66820
Within	335	5474.082	16.34054
Total	336	5492.750	16.34747

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD4	50	13.39000	3.445331	0.487243
All	337	12.82611	4.043201	0.220247

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	367	-3.401477	0.0007
Satterthwaite-Welch t-test*	107.3345	-2.879059	0.0048
Anova F-test	(1, 367)	11.57004	0.0007
Welch F-test*	(1, 107.334)	8.288978	0.0048

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	234.7351	234.7351
Within	367	7445.761	20.28818
Total	368	7680.496	20.87091

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD5	82	14.64634	5.614492	0.620017
All	369	13.15420	4.568469	0.237825

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:16

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	294	-2.945661	0.0035
Satterthwaite-Welch t-test*	8.305412	-2.322148	0.0476
Anova F-test	(1, 294)	8.676922	0.0035
Welch F-test*	(1, 8.30541)	5.392373	0.0476

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	151.0884	151.0884
Within	294	5119.326	17.41267
Total	295	5270.414	17.86581

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD6	9	16.88889	5.325515	1.775172
All	296	12.85439	4.226797	0.245678

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 12:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	314	-1.429351	0.1539
Satterthwaite-Welch t-test*	33.57489	-1.396839	0.1716
Anova F-test	(1, 314)	2.043045	0.1539
Welch F-test*	(1, 33.5749)	1.951160	0.1716

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	35.12931	35.12931
Within	314	5399.098	17.19458
Total	315	5434.228	17.25152

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD7	29	13.88276	4.253828	0.789916
All	316	12.83386	4.153494	0.233652

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:09

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	408	-0.710095	0.4781
Satterthwaite-Welch t-test*	172.3697	-0.612309	0.5411
Anova F-test	(1, 408)	0.504234	0.4781
Welch F-test*	(1, 172.37)	0.374923	0.5411

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	11.81236	11.81236
Within	408	9396.114	23.02969
Total	409	9407.726	23.00178

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD8	123	13.09512	6.075803	0.547837
All	410	12.83805	4.796017	0.236858

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:07

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	352	-0.299494	0.7647
Satterthwaite-Welch t-test*	104.0127	-0.311748	0.7559
Anova F-test	(1, 352)	0.089697	0.7647
Welch F-test*	(1, 104.013)	0.097187	0.7559

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.499622	1.499622
Within	352	5885.015	16.71879
Total	353	5886.514	16.67568

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD9	67	12.89403	3.878022	0.473776
All	354	12.75932	4.083586	0.217040

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:05

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	170	-1.083086	0.2803
Satterthwaite-Welch t-test*	73.25422	-1.071405	0.2875
Anova F-test	(1, 170)	1.173076	0.2803
Welch F-test*	(1, 73.2542)	1.147908	0.2875

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	24.71695	24.71695
Within	170	3581.935	21.07021
Total	171	3606.652	21.09153

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.584247	0.403426
BOARD3	44	14.27273	4.666126	0.703445
All	172	13.62616	4.592552	0.350179

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 00:04

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	176	0.019473	0.9845
Satterthwaite-Weich t-test*	117.8437	0.021983	0.9825
Anova F-test	(1, 176)	0.000379	0.9845
Weich F-test*	(1, 117.844)	0.000483	0.9825

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.006953	0.006953
Within	176	3227.353	18.33723
Total	177	3227.360	18.23367

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD4	50	13.39000	3.445331	0.487243
All	178	13.40000	4.270090	0.320057

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	208	-1.756898	0.0804
Satterthwaite-Weich t-test*	147.2690	-1.679620	0.0952
Anova F-test	(1, 208)	3.086689	0.0804
Weich F-test*	(1, 147.269)	2.821125	0.0952

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	77.15286	77.15286
Within	208	5199.032	24.99535
Total	209	5276.185	25.24490

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD5	82	14.64634	5.614492	0.620017
All	210	13.88905	5.024431	0.346719

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	135	-2.190767	0.0302
Satterthwaite-Welch t-test*	8.846210	-1.914367	0.0884
Anova F-test	(1, 135)	4.799458	0.0302
Welch F-test*	(1, 8.84621)	3.664801	0.0884

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	102.1253	102.1253
Within	135	2872.597	21.27850
Total	136	2974.722	21.87296

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD6	9	16.88889	5.325515	1.775172
All	137	13.63285	4.676853	0.399571

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	155	-0.516301	0.6064
Satterthwaite-Welch t-test*	43.85396	-0.539873	0.5920
Anova F-test	(1, 155)	0.266567	0.6064
Welch F-test*	(1, 43.854)	0.291463	0.5920

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.421402	5.421402
Within	155	3152.369	20.33787
Total	156	3157.791	20.24225

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD7	29	13.88276	4.253828	0.789916
All	157	13.49236	4.499139	0.359070

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:33

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	249	0.456395	0.6485
Satterthwaite-Welch t-test*	226.2731	0.453860	0.6504
Anova F-test	(1, 249)	0.208297	0.6485
Welch F-test*	(1, 226.273)	0.205989	0.6504

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.980697	5.980697
Within	249	7149.385	28.71239
Total	250	7155.366	28.62146

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD8	123	13.09512	6.075803	0.547837
All	251	13.25259	5.349903	0.337683

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	193	0.778790	0.4371
Satterthwaite-Welch t-test*	154.2615	0.819385	0.4138
Anova F-test	(1, 193)	0.606514	0.4371
Welch F-test*	(1, 154.262)	0.671392	0.4138

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	11.43352	11.43352
Within	193	3638.286	18.85122
Total	194	3649.719	18.81299

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD9	67	12.89403	3.878022	0.473776
All	195	13.22872	4.337394	0.310607

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:42

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	92	1.051357	0.2958
Satterthwaite-Weich t-test*	78.33470	1.031572	0.3054
Anova F-test	(1, 92)	1.105352	0.2958
Welch F-test*	(1, 78.3347)	1.064141	0.3054

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.23677	18.23677
Within	92	1517.872	16.49861
Total	93	1536.109	16.51730

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	44	14.27273	4.666126	0.703445
BOARD4	50	13.39000	3.445331	0.487243
All	94	13.80319	4.064148	0.419185

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:44

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	124	-0.376875	0.7069
Satterthwaite-Weich t-test*	102.8198	-0.398443	0.6911
Anova F-test	(1, 124)	0.142035	0.7069
Welch F-test*	(1, 102.82)	0.158757	0.6911

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	3.997079	3.997079
Within	124	3489.551	28.14154
Total	125	3493.548	27.94839

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	44	14.27273	4.666126	0.703445
BOARD5	82	14.64634	5.614492	0.620017
All	126	14.51587	5.286623	0.470970

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:46

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	51	-1.497434	0.1404
Satterthwaite-Welch t-test*	10.66082	-1.370100	0.1988
Anova F-test	(1, 51)	2.242309	0.1404
Welch F-test*	(1, 10.6608)	1.877173	0.1988

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	51.13856	51.13856
Within	51	1163.116	22.80620
Total	52	1214.255	23.35105

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	44	14.27273	4.666126	0.703445
BOARD6	9	16.88889	5.325515	1.775172
All	53	14.71698	4.832293	0.663766

Test for Equality of Means Between Series

Date: 01/14/10 Time: 15:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	71	0.361665	0.7187
Satterthwaite-Welch t-test*	63.86551	0.368683	0.7136
Anova F-test	(1, 71)	0.130802	0.7187
Welch F-test*	(1, 63.8655)	0.135927	0.7136

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2.658197	2.658197
Within	71	1442.889	20.32238
Total	72	1445.547	20.07704

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	44	14.27273	4.666126	0.703445
BOARD7	29	13.88276	4.253828	0.789916
All	73	14.11781	4.480741	0.524431

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 16:45

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	165	1.167527	0.2447
Satterthwaite-Welch t-test*	98.24088	1.320770	0.1896
Anova F-test	(1, 165)	1.363118	0.2447
Welch F-test*	(1, 98.2409)	1.744433	0.1896

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	44.94080	44.94080
Within	165	5439.904	32.96912
Total	166	5484.845	33.04124

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	44	14.27273	4.666126	0.703445
BOARD8	123	13.09512	6.075803	0.547837
All	167	13.40539	5.748151	0.444805

Test for Equality of Means Between Series

Date: 01/14/10 Time: 16:47

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	1.689041	0.0941
Satterthwaite-Welch t-test*	80.11807	1.625603	0.1080
Anova F-test	(1, 109)	2.852861	0.0941
Welch F-test*	(1, 80.1181)	2.642585	0.1080

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	50.48268	50.48268
Within	109	1928.805	17.69546
Total	110	1979.288	17.99352

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	44	14.27273	4.666126	0.703445
BOARD9	67	12.89403	3.878022	0.473776
All	111	13.44054	4.241877	0.402621

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 16:49

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	130	-1.425830	0.1563
Satterthwaite-Welch t-test*	129.9869	-1.593209	0.1135
Anova F-test	(1, 130)	2.032991	0.1563
Welch F-test*	(1, 129.987)	2.538316	0.1135

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	49.02587	49.02587
Within	130	3134.969	24.11515
Total	131	3183.995	24.30530

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	50	13.39000	3.445331	0.487243
BOARD5	82	14.64634	5.614492	0.620017
All	132	14.17045	4.930041	0.429105

Test for Equality of Means Between Series

Date: 01/14/10 Time: 16:51

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	57	-2.565658	0.0130
Satterthwaite-Welch t-test*	9.242242	-1.900717	0.0889
Anova F-test	(1, 57)	6.582600	0.0130
Welch F-test*	(1, 9.24224)	3.612724	0.0889

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	93.37289	93.37289
Within	57	808.5339	14.18481
Total	58	901.9068	15.55012

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	50	13.39000	3.445331	0.487243
BOARD6	9	16.88889	5.325515	1.775172
All	59	13.92373	3.943364	0.513382

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 17:53

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	77	-0.561532	0.5761
Satterthwaite-Welch t-test*	49.28336	-0.530932	0.5979
Anova F-test	(1, 77)	0.315318	0.5761
Welch F-test*	(1, 49.2834)	0.281888	0.5979

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	4.456659	4.456659
Within	77	1088.306	14.13385
Total	78	1092.763	14.00978

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	50	13.39000	3.445331	0.487243
BOARD7	29	13.68276	4.253828	0.789916
All	79	13.57089	3.742964	0.421116

Test for Equality of Means Between Series

Date: 01/14/10 Time: 17:55

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	171	0.322401	0.7475
Satterthwaite-Welch t-test*	152.9949	0.402199	0.6881
Anova F-test	(1, 171)	0.103942	0.7475
Welch F-test*	(1, 152.995)	0.161764	0.6881

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	3.091106	3.091106
Within	171	5085.322	29.73873
Total	172	5088.413	29.58380

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	50	13.39000	3.445331	0.487243
BOARD8	123	13.09512	6.075803	0.547837
All	173	13.18035	5.439099	0.413527

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 17:56

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	115	0.717300	0.4746
Satterthwaite-Weich t-test*	111.4759	0.729787	0.4671
Anova F-test	(1, 115)	0.514519	0.4746
Weich F-test*	(1, 111.476)	0.532588	0.4671

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	7.043200	7.043200
Within	115	1574.223	13.68889
Total	116	1581.266	13.63160

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	50	13.39000	3.445331	0.487243
BOARD9	67	12.89403	3.878022	0.473776
All	117	13.10598	3.692100	0.341335

Test for Equality of Means Between Series

Date: 01/14/10 Time: 17:57

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	89	-1.142629	0.2563
Satterthwaite-Weich t-test*	10.05612	-1.192633	0.2604
Anova F-test	(1, 89)	1.305600	0.2563
Weich F-test*	(1, 10.0561)	1.422372	0.2604

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	40.78479	40.78479
Within	89	2780.213	31.23835
Total	90	2820.998	31.34442

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD6	9	16.88889	5.325515	1.775172
All	91	14.86813	5.598609	0.586894

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 17:59

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	0.667044	0.5062
Satterthwaite-Welch t-test*	64.64681	0.760400	0.4498
Anova F-test	(1, 109)	0.444947	0.5062
Welch F-test*	(1, 64.6468)	0.578209	0.4498

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	12.49111	12.49111
Within	109	3059.985	28.07326
Total	110	3072.476	27.93160

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD7	29	13.88276	4.253828	0.789916
All	111	14.44685	5.285036	0.501633

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:01

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	203	1.845414	0.0664
Satterthwaite-Welch t-test*	182.8512	1.874873	0.0624
Anova F-test	(1, 203)	3.405552	0.0664
Welch F-test*	(1, 182.851)	3.515150	0.0624

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	118.3891	118.3891
Within	203	7057.001	34.76355
Total	204	7175.390	35.17348

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD8	123	13.09512	6.075803	0.547837
All	205	13.71561	5.930723	0.414220

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:40

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	147	2.166496	0.0319
Satterthwaite-Welch t-test*	143.2630	2.245659	0.0263
Anova F-test	(1, 147)	4.693704	0.0319
Welch F-test*	(1, 143.263)	5.042986	0.0263

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	113.2205	113.2205
Within	147	3545.902	24.12178
Total	148	3659.122	24.72380

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64534	5.614492	0.620017
BOARD9	67	12.85403	3.878022	0.473776
All	149	13.85839	4.972303	0.407347

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:41

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	36	1.745310	0.0895
Satterthwaite-Welch t-test*	11.35458	1.547169	0.1492
Anova F-test	(1, 36)	3.046107	0.0895
Welch F-test*	(1, 11.3546)	2.393731	0.1492

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	62.06868	62.06868
Within	36	733.5503	20.37640
Total	37	795.6189	21.50321

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD6	9	16.88889	5.325515	1.775172
BOARD7	29	13.88276	4.253828	0.789916
All	38	14.59474	4.637156	0.752246

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	130	1.821263	0.0709
Satterthwaite-Welch t-test*	9.590709	2.042093	0.0696
Anova F-test	(1, 130)	3.316998	0.0709
Welch F-test*	(1, 9.59071)	4.170144	0.0696

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	120.7021	120.7021
Within	130	4730.566	36.38897
Total	131	4851.268	37.03258

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BCARD6	9	16.88889	5.325515	1.775172
BCARD8	123	13.09512	6.075803	0.547837
All	132	13.35379	6.085440	0.529670

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:44

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	74	2.771943	0.0070
Satterthwaite-Welch t-test*	9.174633	2.174301	0.0571
Anova F-test	(1, 74)	7.683666	0.0070
Welch F-test*	(1, 9.17463)	4.727585	0.0571

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	126.6213	126.6213
Within	74	1219.467	16.47928
Total	75	1346.088	17.94784

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD6	9	16.88889	5.325515	1.775172
BOARD9	67	12.89403	3.878022	0.473776
All	76	13.36711	4.236489	0.485959

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:46

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	150	0.660188	0.5101
Satterthwaite-Welch t-test*	58.31716 (1, 150)	0.819348	0.4159
Anova F-test		0.435849	0.5101
Welch F-test*	(1, 58.3172)	0.671331	0.4159

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.55832	14.55832
Within	150	5010.338	33.40226
Total	151	5024.897	33.27746

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD7	29	13.88276	4.253828	0.789916
BOARD8	123	13.09512	6.075803	0.547837
All	152	13.24539	5.768662	0.467900

Test for Equality of Means Between Series

Date: 01/14/10 Time: 18:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	94	1.113798	0.2682
Satterthwaite-Welch t-test*	49.07445 (1, 94)	1.073418	0.2883
Anova F-test		1.240546	0.2682
Welch F-test*	(1, 49.0745)	1.152227	0.2883

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	19.78590	19.78590
Within	94	1499.239	15.94935
Total	95	1519.025	15.98974

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD7	29	13.88276	4.253828	0.789916
BOARD9	67	12.89403	3.878022	0.473776
All	96	13.19271	3.998717	0.408117

2007 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:04

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	188	0.244937	0.8068
Satterthwaite-Weich t-test*	183.2530	0.277642	0.7816
Anova F-test	(1, 188)	0.059994	0.8068
Weich F-test*	(1, 183.253)	0.077085	0.7816

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.753946	1.753946
Within	188	5496.255	29.23540
Total	189	5498.009	29.08999

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD8	123	13.09512	6.075803	0.547837
BOARD9	67	12.89403	3.878022	0.473776
All	190	13.02421	5.393514	0.391287

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:12

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	443	2.545629	0.0112
Satterthwaite-Welch t-test*	341.8059	2.594062	0.0099
Anova F-test	(1, 443)	6.480225	0.0112
Welch F-test*	(1, 341.806)	6.729159	0.0099

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	992.5000	992.5000
Within	443	67849.10	153.1582
Total	444	68841.60	155.0487

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM1	287	30.68293	12.65185	0.746815
All	445	31.79101	12.45185	0.590274

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:14

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	284	2.214552	0.0276
Satterthwaite-Welch t-test*	251.4126	2.179512	0.0302
Anova F-test	(1, 284)	4.904240	0.0276
Welch F-test*	(1, 251.413)	4.750274	0.0302

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	799.4614	799.4614
Within	284	46296.07	163.0143
Total	285	47095.53	165.2475

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM2	128	30.44141	13.81167	1.220791
All	286	32.29895	12.85486	0.760124

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:35

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	200	1.486896	0.1386
Satterthwaite-Welch t-test*	75.57609 (1, 200)	1.582924	0.1176
Anova F-test		2.210861	0.1386
Welch F-test*	(1, 75.5761)	2.505648	0.1176

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	297.5094	297.5094
Within	200	26913.44	134.5672
Total	201	27210.95	135.3779

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80390	11.85616	0.943225
FIRM3	44	30.86364	10.61392	1.600109
All	202	33.16337	11.63520	0.818650

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:37

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	206	2.543587	0.0117
Satterthwaite-Welch t-test*	99.00660 (1, 206)	2.816519	0.0059
Anova F-test		6.469837	0.0117
Welch F-test*	(1, 99.0066)	7.932778	0.0059

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	838.9229	838.9229
Within	206	26711.36	129.6668
Total	207	27550.28	133.0931

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM4	50	29.10400	9.733279	1.376494
All	208	32.67404	11.53660	0.799919

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	238	-1.180662	0.2389
Satterthwaite-Welch t-test*	104.1341	-0.980780	0.3290
Anova F-test	(1, 238)	1.393962	0.2389
Welch F-test*	(1, 104.134)	0.961930	0.3290

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	377.3157	377.3157
Within	238	64421.50	270.6786
Total	239	64798.82	271.1248

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM5	82	36.44756	22.86629	2.525159
All	240	34.70708	16.46587	1.062867

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	165	-1.599141	0.1117
Satterthwaite-Welch t-test*	8.594104	-1.310142	0.2241
Anova F-test	(1, 165)	2.557251	0.1117
Welch F-test*	(1, 8.5941)	1.716471	0.2241

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	369.2383	369.2383
Within	165	23824.15	144.3888
Total	166	24193.38	145.7433

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM6	9	40.38889	14.81084	4.936949
All	167	34.15868	12.07242	0.934192

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:51

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	-1.690699	0.0926
Satterthwaite-Welch t-test*	32.55517	-1.272093	0.2124
Anova F-test	(1, 185)	2.858465	0.0926
Welch F-test*	(1, 32.5552)	1.618221	0.2124

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	482.5099	482.5099
Within	185	31228.07	168.8004
Total	186	31710.58	170.4870

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM7	29	38.24138	18.08592	3.358470
All	187	34.49198	13.05707	0.954827

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:53

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	279	1.351877	0.1775
Satterthwaite-Welch t-test*	203.2228	1.289357	0.1987
Anova F-test	(1, 279)	1.827571	0.1775
Welch F-test*	(1, 203.223)	1.662440	0.1987

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	393.6991	393.6991
Within	279	80102.76	215.4221
Total	280	80496.46	216.0588

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM8	123	31.41789	17.65644	1.592028
All	281	32.75943	14.69894	0.876865

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:55

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	223	3.280698	0.0012
Satterthwaite-Weich t-test*	126.5982	3.305860	0.0012
Anova F-test	(1, 223)	10.76298	0.0012
Weich F-test*	(1, 126.598)	10.92871	0.0012

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1496.404	1496.404
Within	223	31004.25	139.0325
Total	224	32500.66	145.0922

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM9	67	28.16418	11.63524	1.421470
All	225	32.12444	12.04542	0.803028

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:57

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	413	0.174535	0.8615
Satterthwaite-Weich t-test*	225.7995	0.168765	0.8661
Anova F-test	(1, 413)	0.030462	0.8615
Weich F-test*	(1, 225.799)	0.028482	0.8661

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.163594	5.163594
Within	413	70006.66	169.5076
Total	414	70011.82	169.1107

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM2	128	30.44141	13.81167	1.220791
All	415	30.60843	13.00426	0.638354

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 19:59

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	329	-0.089982	0.9284
Satterthwaite-Weich t-test*	83.32245	-0.102338	0.9188
Anova F-test	(1, 329)	0.008097	0.9284
Welch F-test*	(1, 63.3225)	0.010473	0.9188

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.245858	1.245858
Within	329	50624.03	153.8724
Total	330	50625.27	153.4099

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM3	44	30.86364	10.61392	1.600109
All	331	30.70695	12.38588	0.680789

Test for Equality of Means Between Series

Date: 01/14/10 Time: 20:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	335	0.839819	0.4016
Satterthwaite-Weich t-test*	80.89210	1.008232	0.3163
Anova F-test	(1, 335)	0.705296	0.4016
Welch F-test*	(1, 80.8921)	1.016531	0.3163

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	106.1564	106.1564
Within	335	50421.95	150.5133
Total	336	50528.10	150.3813

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM4	50	29.10400	9.733279	1.376494
All	337	30.44866	12.26300	0.668008

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 20:20

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	367	-2.970793	0.0032
Satterthwaite-Weich t-test*	95.58240	-2.189146	0.0310
Anova F-test	(1, 367)	8.825613	0.0032
Welch F-test*	(1, 95.5824)	4.792361	0.0310

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2119.400	2119.400
Within	367	88132.09	240.1419
Total	368	90251.49	245.2486

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM5	82	36.44756	22.86629	2.525159
All	369	31.96396	15.66042	0.815249

Test for Equality of Means Between Series

Date: 01/14/10 Time: 20:24

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	294	-2.254878	0.0249
Satterthwaite-Weich t-test*	8.370191	-1.943869	0.0862
Anova F-test	(1, 294)	5.084475	0.0249
Welch F-test*	(1, 8.37019)	3.778628	0.0862

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	822.0720	822.0720
Within	294	47534.74	161.6828
Total	295	48356.81	163.9214

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM6	9	40.38889	14.81084	4.936948
All	296	30.97804	12.80318	0.744170

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 20:30

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	314	-2.932615	0.0036
Satterthwaite-Welch t-test*	30.83014	-2.196904	0.0357
Anova F-test	(1, 314)	8.600233	0.0036
Welch F-test*	(1, 30.8301)	4.826386	0.0357

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1504.730	1504.730
Within	314	54938.66	174.9639
Total	315	56443.39	179.1854

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM7	29	38.24138	18.08592	3.358470
All	316	31.37658	13.38601	0.753022

Test for Equality of Means Between Series

Date: 01/18/10 Time: 02:59

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	408	-0.475815	0.6345
Satterthwaite-Welch t-test*	177.9250	-0.417949	0.6765
Anova F-test	(1, 408)	0.226400	0.6345
Welch F-test*	(1, 177.925)	0.174682	0.6765

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	46.50823	46.50823
Within	408	83813.35	205.4249
Total	409	83859.86	205.0363

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM8	123	31.41789	17.65644	1.592028
All	410	30.90341	14.31909	0.707169

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/14/10 Time: 20:40

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	352	1.488950	0.1374
Satterthwaite-Welch t-test*	105.6073	1.568617	0.1197
Anova F-test	(1, 352)	2.216973	0.1374
Welch F-test*	(1, 105.607)	2.460561	0.1197

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	344.6060	344.6060
Within	352	54714.84	155.4399
Total	353	55059.45	155.9758

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM9	67	28.16418	11.63524	1.421470
All	354	30.20621	12.48903	0.663784

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	170	-0.184761	0.8536
Satterthwaite-Welch t-test*	96.55189	-0.209790	0.8343
Anova F-test	(1, 170)	0.034137	0.8536
Welch F-test*	(1, 96.5519)	0.044012	0.8343

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.837577	5.837577
Within	170	29070.99	171.0058
Total	171	29076.83	170.0399

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM3	44	30.86364	10.61392	1.600109
All	172	30.54942	13.03994	0.994286

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:40

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	176	0.626159	0.5320
Satterthwaite-Welch t-test*	126.2600	0.726909	0.4686
Anova F-test	(1, 176)	0.392075	0.5320
Welch F-test*	(1, 126.26)	0.528396	0.4686

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	64.31121	64.31121
Within	176	28868.91	164.0279
Total	177	28933.22	163.4645

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM4	50	29.10400	9.733279	1.376494
All	178	30.06573	12.78532	0.958301

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:42

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	208	-2.373349	0.0185
Satterthwaite-Welch t-test*	119.1374	-2.141404	0.0343
Anova F-test	(1, 208)	5.632786	0.0185
Welch F-test*	(1, 119.137)	4.585610	0.0343

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1803.008	1803.008
Within	208	66579.06	320.0916
Total	209	68382.06	327.1869

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM5	82	36.44756	22.86629	2.525159
All	210	32.78667	18.08831	1.248212

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	135	-2.079277	0.0395
Satterthwaite-Weich t-test*	9.006119	-1.955992	0.0822
Anova F-test	(1, 135)	4.323391	0.0395
Weich F-test*	(1, 9.00612)	3.825906	0.0822

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	832.0670	832.0670
Within	135	25981.70	192.4570
Total	136	26813.77	197.1600

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM6	9	40.38889	14.81084	4.936948
All	137	31.09489	14.04137	1.199635

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:45

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	155	-2.584243	0.0107
Satterthwaite-Weich t-test*	35.75047	-2.182748	0.0357
Anova F-test	(1, 155)	6.678313	0.0107
Weich F-test*	(1, 35.7505)	4.764388	0.0357

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1438.449	1438.449
Within	155	33385.62	215.3911
Total	156	34824.07	223.2312

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM7	29	38.24138	18.08592	3.358470
All	157	31.88217	14.94092	1.192416

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:45

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	249	-0.489078	0.6252
Satterthwaite-Welch t-test*	230.9482	-0.486728	0.6269
Anova F-test	(1, 249)	0.239197	0.6252
Welch F-test*	(1, 230.948)	0.236905	0.6269

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	59.80920	59.80920
Within	249	62260.31	250.0414
Total	250	62320.12	249.2805

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM8	123	31.41789	17.65644	1.592028
All	251	30.91992	15.78862	0.996569

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:47

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	193	1.152102	0.2507
Satterthwaite-Welch t-test*	155.3461	1.215337	0.2261
Anova F-test	(1, 193)	1.327339	0.2507
Welch F-test*	(1, 155.346)	1.477043	0.2261

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	228.0672	228.0672
Within	193	33161.80	171.8228
Total	194	33389.87	172.1127

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM9	67	28.16418	11.63524	1.421470
All	195	29.65897	13.11917	0.939484

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:54

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	92	0.838332	0.4040
Satterthwaite-Welch t-test*	87.93226	0.833672	0.4067
Anova F-test	(1, 92)	0.702801	0.4040
Welch F-test*	(1, 87.9323)	0.695008	0.4067

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	72.46707	72.46707
Within	92	9486.281	103.1118
Total	93	9558.748	102.7822

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	44	30.86364	10.61392	1.600109
FIRM4	50	29.10400	9.733279	1.376494
All	94	29.92766	10.13816	1.045671

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:55

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	124	-1.531595	0.1282
Satterthwaite-Welch t-test*	122.0424	-1.867880	0.0642
Anova F-test	(1, 124)	2.345782	0.1282
Welch F-test*	(1, 122.042)	3.488977	0.0642

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	892.8430	892.8430
Within	124	47196.43	380.6163
Total	125	48089.27	384.7142

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	44	30.86364	10.61392	1.600109
FIRM5	82	36.44756	22.86629	2.525159
All	126	34.49762	19.61413	1.747366

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:56

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	51	-2.288916	0.0263
Satterthwaite-Weich t-test*	9.749010	-1.835387	0.0971
Anova F-test	(1, 51)	5.239136	0.0263
Welch F-test*	(1, 9.74901)	3.368645	0.0971

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	677.9104	677.9104
Within	51	6599.071	129.3935
Total	52	7276.981	139.9419

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	44	30.86364	10.61392	1.600109
FIRM6	9	40.38889	14.81084	4.936948
All	53	32.48113	11.82971	1.624935

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:57

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	71	-2.196373	0.0313
Satterthwaite-Weich t-test*	40.78600	-1.983173	0.0541
Anova F-test	(1, 71)	4.824056	0.0313
Welch F-test*	(1, 40.786)	3.932975	0.0541

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	951.4256	951.4256
Within	71	14002.99	197.2252
Total	72	14954.42	207.7002

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	44	30.86364	10.61392	1.600109
FIRM7	29	38.24138	18.08592	3.358470
All	73	33.79452	14.41181	1.686775

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 01:59

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	165	-0.195728	0.8451
Satterthwaite-Weich t-test*	126.5589	-0.245549	0.8064
Anova F-test	(1, 165)	0.038309	0.8451
Weich F-test*	(1, 126.559)	0.060294	0.8064

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	9.955256	9.955256
Within	165	42877.68	259.8647
Total	166	42887.64	258.3593

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	44	30.86364	10.61392	1.600109
FIRM8	123	31.41789	17.65644	1.592028
All	167	31.27186	16.07356	1.243809

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:00

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	1.237315	0.2186
Satterthwaite-Weich t-test*	97.91816	1.261246	0.2102
Anova F-test	(1, 109)	1.530949	0.2186
Weich F-test*	(1, 97.9182)	1.590741	0.2102

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	193.5341	193.5341
Within	109	13779.18	126.4145
Total	110	13972.71	127.0246

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	44	30.86364	10.61392	1.600109
FIRM9	67	28.16418	11.63524	1.421470
All	111	29.23423	11.27052	1.069750

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:02

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	130	-2.152586	0.0332
Satterthwaite-Welch t-test*	118.9307	-2.553427	0.0119
Anova F-test	(1, 130)	4.633627	0.0332
Welch F-test*	(1, 118.931)	6.519988	0.0119

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1675.033	1675.033
Within	130	46994.34	361.4950
Total	131	48669.38	371.5220

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	50	29.10400	9.733279	1.376494
FIRM5	82	36.44756	22.86629	2.525159
All	132	33.66591	19.27490	1.677665

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:09

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	57	-2.941895	0.0047
Satterthwaite-Welch t-test*	9.282988	-2.201822	0.0543
Anova F-test	(1, 57)	8.654747	0.0047
Welch F-test*	(1, 9.28299)	4.848020	0.0543

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	971.3038	971.3038
Within	57	6396.988	112.2279
Total	58	7368.292	127.0395

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	50	29.10400	9.733279	1.376494
FIRM6	9	40.38889	14.81084	4.936948
All	59	30.82542	11.27118	1.467383

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	77	-2.924042	0.0045
Satterthwaite-Welch t-test*	37.59101	-2.517456	0.0162
Anova F-test	(1, 77)	8.550022	0.0045
Welch F-test*	(1, 37.591)	6.337584	0.0162

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1532.443	1532.443
Within	77	13800.91	179.2326
Total	78	15333.35	196.5814

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	50	29.10400	9.733279	1.376494
FIRM7	29	38.24138	18.08592	3.358470
All	79	32.45823	14.02075	1.577458

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:12

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	171	-0.873303	0.3837
Satterthwaite-Welch t-test*	155.8007	-1.099449	0.2733
Anova F-test	(1, 171)	0.762657	0.3837
Welch F-test*	(1, 155.801)	1.208788	0.2733

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	190.3325	190.3325
Within	171	42675.60	249.5649
Total	172	42865.93	249.2205

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	50	29.10400	9.733279	1.376494
FIRM8	123	31.41789	17.65644	1.592028
All	173	30.74913	15.78672	1.200242

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:14

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	115	0.462828	0.6444
Satterthwaite-Welch t-test*	113.4478	0.474965	0.6357
Anova F-test	(1, 115)	0.214210	0.6444
Welch F-test*	(1, 113.448)	0.225592	0.6357

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	25.29002	25.29002
Within	115	13577.09	118.0617
Total	116	13602.38	117.2619

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	50	29.10400	9.733279	1.376494
FIRM9	67	28.16418	11.63524	1.421470
All	117	28.56581	10.82875	1.001119

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	89	-0.504186	0.6154
Satterthwaite-Welch t-test*	12.64786	-0.710756	0.4901
Anova F-test	(1, 89)	0.254203	0.6154
Welch F-test*	(1, 12.6479)	0.505175	0.4901

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	125.9796	125.9796
Within	89	44107.13	495.5858
Total	90	44233.11	491.4790

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM6	9	40.38889	14.81084	4.936948
All	91	36.83736	22.16933	2.323977

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:41

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	-0.381932	0.7033
Satterthwaite-Weich t-test*	61.78113	-0.426909	0.6709
Anova F-test	(1, 109)	0.145872	0.7033
Weich F-test*	(1, 61.7811)	0.182251	0.6709

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	68.93595	68.93595
Within	109	51511.05	472.5785
Total	110	51579.99	468.9090

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM7	29	38.24138	18.08592	3.358470
All	111	36.91622	21.65431	2.055336

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	203	1.772887	0.0777
Satterthwaite-Weich t-test*	143.1721	1.684912	0.0942
Anova F-test	(1, 203)	3.143127	0.0777
Weich F-test*	(1, 143.172)	2.838927	0.0942

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1244.643	1244.643
Within	203	80385.75	395.9889
Total	204	81630.39	400.1490

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM8	123	31.41789	17.65644	1.592028
All	205	33.42976	20.00372	1.397121

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:44

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	147	2.892854	0.0079
Satterthwaite-Weich t-test*	125.0570	2.858548	0.0050
Anova F-test	(1, 147)	7.251465	0.0079
Welch F-test*	(1, 125.057)	8.171294	0.0050

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2529.984	2529.984
Within	147	51287.24	348.8928
Total	148	53817.22	363.6299

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM9	67	28.18418	11.63524	1.421470
All	149	32.72282	19.06908	1.562200

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:46

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	36	0.323243	0.7484
Satterthwaite-Weich t-test*	16.13059	0.358657	0.7238
Anova F-test	(1, 36)	0.104486	0.7484
Welch F-test*	(1, 16.1306)	0.129353	0.7238

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	31.67577	31.67577
Within	36	10913.70	303.1583
Total	37	10945.37	295.8209

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM6	9	40.38889	14.81084	4.936948
FIRM7	29	38.24138	18.08592	3.358470
All	38	38.75000	17.19945	2.790119

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	130	1.484982	0.1400
Satterthwaite-Welch t-test*	9.743411	1.729419	0.1152
Anova F-test	(1, 130)	2.205173	0.1400
Welch F-test*	(1, 9.74341)	2.990890	0.1152

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	674.9252	674.9252
Within	130	39788.39	306.0645
Total	131	40463.31	308.8803

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM6	9	40.38889	14.81084	4.936948
FIRM8	123	31.41789	17.65644	1.592028
All	132	32.02955	17.57499	1.529707

Test for Equality of Means Between Series

Date: 01/15/10 Time: 02:50

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	74	2.864968	0.0054
Satterthwaite-Welch t-test*	9.373584	2.379500	0.0402
Anova F-test	(1, 74)	8.208043	0.0054
Welch F-test*	(1, 9.37358)	5.662019	0.0402

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1185.716	1185.716
Within	74	10689.88	144.4579
Total	75	11875.60	158.3413

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM6	9	40.38889	14.81084	4.936948
FIRM9	67	28.16418	11.63524	1.421470
All	76	29.61184	12.58337	1.443412

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 10:37

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	150	1.863574	0.0643
Satterthwaite-Weich t-test*	41.51634	1.835900	0.0735
Anova F-test	(1, 150)	3.472906	0.0643
Welch F-test*	(1, 41.5163)	3.370528	0.0735

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1092.630	1092.630
Within	150	47192.31	314.6154
Total	151	48284.94	319.7678

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM7	29	38.24138	18.08592	3.358470
FIRM8	123	31.41789	17.65644	1.592028
All	152	32.71974	17.88205	1.450426

Test for Equality of Means Between Series

Date: 01/15/10 Time: 10:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	94	3.267681	0.0015
Satterthwaite-Weich t-test*	38.40749	2.763221	0.0087
Anova F-test	(1, 94)	10.67774	0.0015
Welch F-test*	(1, 38.4075)	7.635393	0.0087

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2055.329	2055.329
Within	94	18093.80	192.4873
Total	95	20149.13	212.0961

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM7	29	38.24138	18.08592	3.358470
FIRM9	67	28.16418	11.63524	1.421470
All	96	31.20833	14.56352	1.486383

2007 Firm Scores — Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 10:42

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	188	1.355711	0.1768
Satterthwaite-Welch t-test*	181.1921	1.524502	0.1291
Anova F-test	(1, 188)	1.837953	0.1768
Welch F-test*	(1, 181.192)	2.324107	0.1291

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	459.1803	459.1803
Within	188	46968.49	249.8324
Total	189	47427.67	250.9401

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM8	123	31.41789	17.65644	1.592028
FIRM9	67	28.16418	11.63524	1.421470
All	190	30.27053	15.84109	1.149233

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 10:51

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	284	-1.136361	0.2568
Satterthwaite-Welch t-test*	265.7639	-1.127181	0.2607
Anova F-test	(1, 284)	1.291316	0.2568
Welch F-test*	(1, 265.764)	1.270538	0.2607

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.233816	0.233816
Within	284	51.42328	0.181068
Total	285	51.65709	0.181253

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF1	136	0.491932	0.461187	0.039546
All	286	0.401903	0.425738	0.025174

Test for Equality of Means Between Series

Date: 01/15/10 Time: 10:53

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	272	-10.28788	0.0000
Satterthwaite-Welch t-test*	177.4883	-9.743628	0.0000
Anova F-test	(1, 272)	105.8404	0.0000
Welch F-test*	(1, 177.488)	94.93829	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	35.47294	35.47294
Within	272	91.16213	0.335155
Total	273	126.6351	0.463865

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF2	124	1.157560	0.746005	0.066993
All	274	0.761822	0.681076	0.041145

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 10:54

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	192	-9.647366	0.0000
Satterthwaite-Weich t-test*	54.46996	-7.750698	0.0000
Anova F-test	(1, 192)	93.07168	0.0000
Welch F-test*	(1, 54.47)	60.07332	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.27981	18.27981
Within	192	37.70991	0.196406
Total	193	55.98972	0.290102

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF3	44	1.167696	0.590629	0.089041
All	194	0.600929	0.538511	0.038670

Test for Equality of Means Between Series

Date: 01/15/10 Time: 11:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	198	0.817128	0.4148
Satterthwaite-Weich t-test*	92.08530	0.859510	0.3923
Anova F-test	(1, 198)	0.667698	0.4148
Welch F-test*	(1, 92.0853)	0.738757	0.3923

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.097164	0.097164
Within	198	28.81312	0.145521
Total	199	28.91028	0.145278

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF4	50	0.383776	0.352931	0.049912
All	200	0.421952	0.381153	0.026952

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 11:11

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	220	-7.757405	0.0000
Satterthwaite-Welch t-test*	75.53039	-5.631787	0.0000
Anova F-test	(1, 220)	60.17734	0.0000
Welch F-test*	(1, 75.5304)	31.71703	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	51.09300	51.09300
Within	220	186.7889	0.849041
Total	221	237.8819	1.076389

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF5	72	1.459492	1.520189	0.179156
All	222	0.767050	1.037492	0.069632

Test for Equality of Means Between Series

Date: 01/15/10 Time: 11:13

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	154	-1.326590	0.1866
Satterthwaite-Welch t-test*	6.077958	-2.044073	0.0863
Anova F-test	(1, 154)	1.759841	0.1866
Welch F-test*	(1, 6.07796)	4.178236	0.0863

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.262906	0.262906
Within	154	23.00639	0.149392
Total	155	23.26930	0.150125

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF6	6	0.648150	0.243605	0.099451
All	156	0.442888	0.387459	0.031022

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 11:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	173	2.040284	0.0428
Satterthwaite-Weich t-test*	81.56781	3.573598	0.0006
Anova F-test	(1, 173)	4.162757	0.0428
Weich F-test*	(1, 81.5678)	12.77060	0.0006

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.561392	0.561392
Within	173	23.33090	0.134861
Total	174	23.89229	0.137312

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF7	25	0.272819	0.160885	0.032177
All	175	0.411555	0.370556	0.028011

Test for Equality of Means Between Series

Date: 01/15/10 Time: 11:17

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	207	0.603397	0.5469
Satterthwaite-Weich t-test*	89.29082	0.550153	0.5836
Anova F-test	(1, 207)	0.364088	0.5469
Weich F-test*	(1, 89.2908)	0.302668	0.5836

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.063781	0.063781
Within	207	36.26235	0.175180
Total	208	36.32613	0.174645

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF8	59	0.395867	0.483391	0.062932
All	209	0.423722	0.417905	0.028907

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:25

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	211	-8.887092	0.0000
Satterthwaite-Welch t-test*	74.56556	-6.852628	0.0000
Anova F-test	(1, 211)	78.98040	0.0000
Welch F-test*	(1, 74.56556)	46.95852	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	23.52298	23.52298
Within	211	62.84280	0.297833
Total	212	86.36578	0.407386

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	150	0.434678	0.390402	0.031876
EFF9	63	1.162827	0.804555	0.101364
All	213	0.650046	0.638268	0.043733

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	258	-8.735300	0.0000
Satterthwaite-Welch t-test*	201.3777	-8.556212	0.0000
Anova F-test	(1, 258)	76.30547	0.0000
Welch F-test*	(1, 201.376)	73.20876	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	28.73760	28.73760
Within	258	97.16605	0.376613
Total	259	125.9037	0.486114

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF2	124	1.157560	0.746005	0.066993
All	260	0.809385	0.697219	0.043240

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:27

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	178	-7.862405	0.0000
Satterthwaite-Welch t-test*	60.88294	-6.936059	0.0000
Anova F-test	(1, 178)	61.81741	0.0000
Welch F-test*	(1, 60.8829)	48.10891	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	15.18132	15.18132
Within	178	43.71383	0.245583
Total	179	58.89515	0.329023

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF3	44	1.167696	0.590629	0.089041
All	180	0.657119	0.573605	0.042754

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	184	1.503357	0.1345
Satterthwaite-Welch t-test*	113.5855	1.698436	0.0922
Anova F-test	(1, 184)	2.260081	0.1345
Welch F-test*	(1, 113.586)	2.884684	0.0922

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.427659	0.427659
Within	184	34.81704	0.189223
Total	185	35.24470	0.190512

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF4	50	0.383776	0.352931	0.049912
All	186	0.462857	0.436477	0.032004

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:30

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	206	-6.862311	0.0000
Satterthwaite-Welch t-test*	77.99014	-5.273707	0.0000
Anova F-test	(1, 206)	47.09132	0.0000
Welch F-test*	(1, 77.9901)	27.81199	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	44.07218	44.07218
Within	206	192.7928	0.935888
Total	207	236.8650	1.144275

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF5	72	1.459492	1.520189	0.179156
All	208	0.826857	1.069708	0.074171

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	140	-0.822661	0.4121
Satterthwaite-Welch t-test*	6.700041	-1.459638	0.1896
Anova F-test	(1, 140)	0.676772	0.4121
Welch F-test*	(1, 6.70004)	2.130544	0.1896

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.140238	0.140238
Within	140	29.01032	0.207217
Total	141	29.15055	0.206742

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF6	6	0.648150	0.243605	0.099451
All	142	0.498533	0.454688	0.038157

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:32

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	159	2.344235	0.0203
Satterthwaite-Welch t-test*	107.6132	4.297748	0.0000
Anova F-test	(1, 159)	5.495436	0.0203
Welch F-test*	(1, 107.613)	18.47064	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.013884	1.013884
Within	159	29.33482	0.184496
Total	160	30.34870	0.189679

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF7	25	0.272819	0.160885	0.032177
All	161	0.457908	0.435522	0.034324

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:47

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	193	1.316805	0.1895
Satterthwaite-Welch t-test*	105.7652	1.292469	0.1990
Anova F-test	(1, 193)	1.733976	0.1895
Welch F-test*	(1, 105.765)	1.670476	0.1990

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.379734	0.379734
Within	193	42.26627	0.218996
Total	194	42.64600	0.219825

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF8	59	0.395867	0.483391	0.062932
All	195	0.462866	0.468855	0.033575

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:49

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	197	-7.446619	0.0000
Satterthwaite-Welch t-test*	81.44393	-6.165996	0.0000
Anova F-test	(1, 197)	55.45214	0.0000
Welch F-test*	(1, 81.4439)	38.01951	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	19.37918	19.37918
Within	197	68.84672	0.349476
Total	198	88.22589	0.445585

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	136	0.491932	0.461187	0.039546
EFF9	63	1.162827	0.804555	0.101364
All	199	0.704326	0.667522	0.047319

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:50

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	166	-0.081469	0.9352
Satterthwaite-Welch t-test*	94.83866	-0.090967	0.9277
Anova F-test	(1, 166)	0.006637	0.9352
Welch F-test*	(1, 94.8387)	0.008275	0.9277

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.003337	0.003337
Within	166	83.45268	0.502727
Total	167	83.45602	0.499737

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF3	44	1.167696	0.590629	0.089041
All	168	1.160215	0.706921	0.054540

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:52

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	172	7.015592	0.0000
Satterthwaite-Welch t-test*	167.7252	9.262197	0.0000
Anova F-test	(1, 172)	49.21853	0.0000
Welch F-test*	(1, 167.725)	85.78830	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	21.33449	21.33449
Within	172	74.55589	0.433464
Total	173	95.89038	0.554280

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF4	50	0.383776	0.352931	0.049912
All	174	0.935208	0.744500	0.056440

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:54

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	194	-1.861311	0.0642
Satterthwaite-Welch t-test*	91.21456	-1.578551	0.1179
Anova F-test	(1, 194)	3.464478	0.0642
Welch F-test*	(1, 91.2146)	2.491824	0.1179

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	4.152582	4.152582
Within	194	232.5317	1.198617
Total	195	236.6843	1.213766

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF5	72	1.459492	1.520189	0.179156
All	196	1.268474	1.101710	0.078694

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 15:56

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	128	1.662850	0.0988
Satterthwaite-Welch t-test*	10.47962	4.248234	0.0015
Anova F-test	(1, 128)	2.765072	0.0988
Welch F-test*	(1, 10.4796)	18.04749	0.0015

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.485128	1.485128
Within	128	68.74917	0.537103
Total	129	70.23430	0.544452

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF6	6	0.648150	0.243605	0.099451
All	130	1.134049	0.737870	0.064715

Test for Equality of Means Between Series

Date: 01/15/10 Time: 20:34

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	147	5.887165	0.0000
Satterthwaite-Welch t-test*	146.3734	11.90448	0.0000
Anova F-test	(1, 147)	34.65871	0.0000
Welch F-test*	(1, 146.373)	141.7167	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	16.28574	16.28574
Within	147	69.07367	0.469889
Total	148	85.35941	0.576753

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF7	25	0.272819	0.160885	0.032177
All	149	1.009113	0.759442	0.062216

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 20:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	181	7.155001	0.0000
Satterthwaite-Welch t-test*	164.3902	8.286831	0.0000
Anova F-test	(1, 181)	51.19403	0.0000
Welch F-test*	(1, 164.39)	68.67157	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	23.19433	23.19433
Within	181	82.00512	0.453067
Total	182	105.1995	0.578019

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF8	59	0.395867	0.483391	0.062932
All	183	0.911987	0.760276	0.056201

Test for Equality of Means Between Series

Date: 01/15/10 Time: 20:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	-0.044433	0.9646
Satterthwaite-Welch t-test*	116.7641	-0.043347	0.9655
Anova F-test	(1, 185)	0.001974	0.9646
Welch F-test*	(1, 116.764)	0.001879	0.9655

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.001159	0.001159
Within	185	108.5856	0.586949
Total	186	108.5867	0.583800

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	124	1.157560	0.746005	0.066993
EFF9	63	1.162827	0.804555	0.101364
All	187	1.159334	0.764068	0.055874

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 21:07

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	92	7.918344	0.0000
Satterthwaite-Welch t-test*	68.34655	7.679799	0.0000
Anova F-test	(1, 92)	62.70017	0.0000
Welch F-test*	(1, 68.3465)	58.97931	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.38265	14.38265
Within	92	21.10367	0.229388
Total	93	35.48632	0.381573

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	44	1.167696	0.590629	0.089041
EFF4	50	0.383776	0.352931	0.049912
All	94	0.750717	0.617716	0.063713

Test for Equality of Means Between Series

Date: 01/15/10 Time: 21:08

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	114	-1.216670	0.2262
Satterthwaite-Welch t-test*	100.3025	-1.458524	0.1478
Anova F-test	(1, 114)	1.480287	0.2262
Welch F-test*	(1, 100.303)	2.127292	0.1478

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2.325342	2.325342
Within	114	179.0795	1.570873
Total	115	181.4048	1.577433

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	44	1.167696	0.590629	0.089041
EFF5	72	1.459492	1.520189	0.179156
All	116	1.348911	1.255959	0.116613

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 21:09

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	48	2.114751	0.0397
Satterthwaite-Weich t-test*	15.10053 (1, 48)	3.892109	0.0014
Anova F-test		4.472170	0.0397
Welch F-test*	(1, 15.1005)	15.14852	0.0014

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.425219	1.425219
Within	48	15.29694	0.318686
Total	49	16.72216	0.341269

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	44	1.167696	0.590629	0.089041
EFF6	6	0.648150	0.243605	0.099451
All	50	1.105351	0.584182	0.082616

Test for Equality of Means Between Series

Date: 01/15/10 Time: 21:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	67	7.399664	0.0000
Satterthwaite-Weich t-test*	53.33454 (1, 67)	9.451967	0.0000
Anova F-test		54.75503	0.0000
Welch F-test*	(1, 53.3345)	89.33968	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	12.76646	12.76646
Within	67	15.62144	0.233156
Total	68	28.38790	0.417469

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	44	1.167696	0.590629	0.089041
EFF7	25	0.272819	0.160885	0.032177
All	69	0.843465	0.646119	0.077784

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 17:18

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	101	7.287695	0.0000
Satterthwaite-Welch t-test*	81.59509	7.078705	0.0000
Anova F-test	(1, 101)	53.11050	0.0000
Welch F-test*	(1, 81.5951)	50.10807	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	15.01444	15.01444
Within	101	28.55290	0.282702
Total	102	43.56734	0.427131

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	44	1.167696	0.590629	0.089041
EFF8	59	0.395367	0.483391	0.062932
All	103	0.725581	0.663552	0.064396

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	105	0.034204	0.9728
Satterthwaite-Welch t-test*	104.7068	0.036092	0.9713
Anova F-test	(1, 105)	0.001170	0.9728
Welch F-test*	(1, 104.707)	0.001303	0.9713

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.000614	0.000614
Within	105	55.13335	0.525079
Total	106	55.13396	0.520132

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	44	1.167696	0.590629	0.089041
EFF9	63	1.162827	0.804555	0.101364
All	107	1.164829	0.721202	0.069721

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:13

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	120	-4.906844	0.0000
Satterthwaite-Welch t-test*	81.73559 (1, 120)	-5.784086	0.0000
Anova F-test		24.07712	0.0000
Welch F-test*	(1, 81.7356)	33.45565	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	34.14590	34.14590
Within	120	170.1827	1.418189
Total	121	204.3286	1.688666

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	50	0.383776	0.352931	0.049912
EFF5	72	1.459492	1.520189	0.179156
All	122	1.013625	1.299487	0.117650

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:14

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	54	-1.777411	0.0811
Satterthwaite-Welch t-test*	7.785582 (1, 54)	-2.375905	0.0457
Anova F-test		3.159191	0.0811
Welch F-test*	(1, 7.78558)	5.644923	0.0457

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.374432	0.374432
Within	54	6.400156	0.118521
Total	55	6.774588	0.123174

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	50	0.383776	0.352931	0.049912
EFF6	6	0.648150	0.243605	0.099451
All	56	0.412101	0.350962	0.046899

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:16

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	73	1.492465	0.1399
Satterthwaite-Welch t-test*	72.59293	1.868434	0.0657
Anova F-test	(1, 73)	2.227451	0.1399
Welch F-test*	(1, 72.5929)	3.491044	0.0657

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.205190	0.205190
Within	73	6.724656	0.092119
Total	74	6.929846	0.093647

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	50	0.383776	0.352931	0.049912
EFF7	25	0.272819	0.160885	0.032177
All	75	0.346790	0.306017	0.035336

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:17

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	107	-0.146769	0.8836
Satterthwaite-Welch t-test*	104.8224	-0.150542	0.8806
Anova F-test	(1, 107)	0.021541	0.8836
Welch F-test*	(1, 104.822)	0.022663	0.8806

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.003957	0.003957
Within	107	19.65611	0.183702
Total	108	19.66007	0.182038

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	50	0.383776	0.352931	0.049912
EFF8	59	0.395867	0.483391	0.062932
All	109	0.390321	0.426659	0.040866

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:19

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	111	-6.373099	0.0000
Satterthwaite-Welch t-test*	89.08338	-6.895084	0.0000
Anova F-test	(1, 111)	40.61639	0.0000
Welch F-test*	(1, 89.0834)	47.54218	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	16.91858	16.91858
Within	111	46.23656	0.416546
Total	112	63.15513	0.563885

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	50	0.383776	0.352931	0.049912
EFF9	63	1.162827	0.804555	0.101364
All	113	0.818114	0.750923	0.070641

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:24

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	76	1.298334	0.1981
Satterthwaite-Welch t-test*	51.73786	3.959538	0.0002
Anova F-test	(1, 76)	1.685670	0.1981
Welch F-test*	(1, 51.7379)	15.67794	0.0002

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	3.645837	3.645837
Within	76	164.3760	2.162842
Total	77	168.0218	2.182101

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	72	1.459492	1.520189	0.179156
EFF6	6	0.648150	0.243605	0.099451
All	78	1.397081	1.477194	0.167259

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	95	3.882362	0.0002
Satterthwaite-Welch t-test*	75.42225 (1, 95)	6.519373	0.0000
Anova F-test		15.07273	0.0002
Welch F-test*	(1, 75.4223)	42.50223	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	26.13143	26.13143
Within	95	164.7005	1.733689
Total	96	190.8319	1.987832

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	72	1.459492	1.520189	0.179156
EFF7	25	0.272819	0.160885	0.032177
All	97	1.153649	1.409905	0.143154

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:30

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	129	5.161542	0.0000
Satterthwaite-Welch t-test*	87.96302 (1, 129)	5.601337	0.0000
Anova F-test		26.64152	0.0000
Welch F-test*	(1, 87.963)	31.37498	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	36.68514	36.68514
Within	129	177.6319	1.376992
Total	130	214.3171	1.648593

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	72	1.459492	1.520189	0.179156
EFF8	59	0.395867	0.483391	0.062932
All	131	0.980455	1.283975	0.112181

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	133	1.387784	0.1675
Satterthwaite-Welch t-test*	110.7372	1.441219	0.1523
Anova F-test	(1, 133)	1.925946	0.1675
Welch F-test*	(1, 110.737)	2.077113	0.1523

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2.957157	2.957157
Within	133	204.2124	1.535431
Total	134	207.1695	1.546041

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	72	1.459492	1.520189	0.179156
EFF9	63	1.162827	0.804555	0.101364
All	135	1.321048	1.243399	0.107015

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:32

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	29	4.640590	0.0001
Satterthwaite-Welch t-test*	6.087713	3.590759	0.0112
Anova F-test	(1, 29)	21.53507	0.0001
Welch F-test*	(1, 6.08771)	12.89355	0.0112

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.681646	0.681646
Within	29	0.917932	0.031653
Total	30	1.599579	0.053319

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF6	6	0.648150	0.243605	0.099451
EFF7	25	0.272819	0.160885	0.032177
All	31	0.345464	0.230910	0.041473

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:34

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	63	1.255704	0.2139
Satterthwaite-Welch t-test*	9.672306	2.143617	0.0586
Anova F-test	(1, 63)	1.576794	0.2139
Welch F-test*	(1, 9.67231)	4.595093	0.0586

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.346629	0.346629
Within	63	13.84939	0.219832
Total	64	14.19602	0.221813

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF6	6	0.648150	0.243605	0.099451
EFF8	59	0.395867	0.483391	0.062932
All	65	0.419155	0.470970	0.058417

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:36

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	67	-1.550751	0.1257
Satterthwaite-Welch t-test*	19.12037	-3.624368	0.0018
Anova F-test	(1, 67)	2.404828	0.1257
Welch F-test*	(1, 19.1204)	13.13604	0.0018

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.451146	1.451146
Within	67	40.42983	0.603430
Total	68	41.88098	0.615897

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF6	6	0.648150	0.243605	0.099451
EFF9	63	1.162827	0.804555	0.101364
All	69	1.118072	0.784791	0.094478

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:38

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	82	-1.240210	0.2184
Satterthwaite-Welch t-test*	79.20715	-1.740898	0.0856
Anova F-test	(1, 82)	1.538121	0.2184
Welch F-test*	(1, 79.2071)	3.030726	0.0856

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.265868	0.265868
Within	82	14.17389	0.172852
Total	83	14.43976	0.173973

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF7	25	0.272819	0.160885	0.032177
EFF8	59	0.395867	0.483391	0.062932
All	84	0.359246	0.417101	0.045509

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:41

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	86	-5.469593	0.0000
Satterthwaite-Welch t-test*	73.20448	-8.368750	0.0000
Anova F-test	(1, 86)	29.91644	0.0000
Welch F-test*	(1, 73.2045)	70.03597	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.17703	14.17703
Within	86	40.75433	0.473888
Total	87	54.93137	0.631395

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF7	25	0.272819	0.160885	0.032177
EFF9	63	1.162827	0.804555	0.101364
All	88	0.909983	0.794604	0.084705

2007 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/15/10 Time: 22:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	120	-6.329210	0.0000
Satterthwaite-Welch t-test*	102.6975	-6.428218	0.0000
Anova F-test	(1, 120)	40.05890	0.0000
Welch F-test*	(1, 102.698)	41.32198	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	17.92161	17.92161
Within	120	53.68579	0.447382
Total	121	71.60740	0.591797

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFFB	59	0.395867	0.483391	0.062932
EFF9	63	1.162827	0.804555	0.101364
All	122	0.791920	0.769283	0.069648

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 00:33

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	443	3.025444	0.0026
Satterthwaite-Welch t-test*	363.1886	3.150147	0.0018
Anova F-test	(1, 443)	9.153313	0.0026
Welch F-test*	(1, 363.189)	9.923426	0.0018

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	143.0399	143.0399
Within	443	6922.812	15.62711
Total	444	7065.852	15.91408

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD1	287	12.72787	4.135991	0.244140
All	445	13.14854	3.989246	0.189108

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:05

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	284	1.054325	0.2926
Satterthwaite-Welch t-test*	238.1391	1.028668	0.3047
Anova F-test	(1, 284)	1.111602	0.2926
Welch F-test*	(1, 238.139)	1.058158	0.3047

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.30262	18.30262
Within	284	4676.083	16.46508
Total	285	4694.385	16.47153

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD2	128	13.40391	4.564247	0.403426
All	286	13.68497	4.058513	0.239985

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:06

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	199	-0.587314	0.5577
Satterthwaite-Welch t-test*	56.02505	-0.504272	0.6160
Anova F-test	(1, 199)	0.344937	0.5577
Welch F-test*	(1, 56.025)	0.254290	0.6160

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.132365	5.132365
Within	199	2960.944	14.87912
Total	200	2966.077	14.83038

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD3	43	14.30233	4.707061	0.717820
All	201	13.99602	3.851024	0.271630

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:08

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	220	1.318032	0.1889
Satterthwaite-Welch t-test*	126.5444	1.367462	0.1739
Anova F-test	(1, 220)	1.737209	0.1889
Welch F-test*	(1, 126.544)	1.869952	0.1739

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	21.44142	21.44142
Within	220	2715.340	12.34245
Total	221	2736.781	12.38362

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD4	64	13.22656	3.297341	0.412168
All	222	13.71486	3.519037	0.236182

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:09

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	238	-1.228341	0.2205
Satterthwaite-Welch t-test*	116.4413	-1.074458	0.2848
Anova F-test	(1, 238)	1.508821	0.2205
Welch F-test*	(1, 116.441)	1.154460	0.2848

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	29.05875	29.05875
Within	238	4583.699	19.25924
Total	239	4612.757	19.30024

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD5	82	14.64634	5.614492	0.620017
All	240	14.16333	4.393204	0.283580

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	-2.348059	0.0201
Satterthwaite-Welch t-test*	8.420692	-1.655229	0.1346
Anova F-test	(1, 185)	5.513381	0.0201
Welch F-test*	(1, 8.42069)	2.739783	0.1346

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	75.42517	75.42517
Within	185	2257.264	13.68039
Total	186	2332.689	14.05234

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD6	9	16.88889	5.325515	1.775172
All	167	14.07305	3.748645	0.290079

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:12

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	0.039966	0.9682
Satterthwaite-Welch t-test*	35.71811	0.035589	0.9718
Anova F-test	(1, 185)	0.001597	0.9682
Welch F-test*	(1, 35.7181)	0.001267	0.9718

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.021905	0.021905
Within	185	2537.036	13.71371
Total	186	2537.058	13.64010

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD7	29	13.88276	4.253828	0.789916
All	187	13.90802	3.693250	0.270077

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:13

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	279	1.404901	0.1612
Satterthwaite-Welch t-test*	186.8202	1.322786	0.1875
Anova F-test	(1, 279)	1.973747	0.1612
Welch F-test*	(1, 186.82)	1.749762	0.1875

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	46.22426	46.22426
Within	279	6534.052	23.41954
Total	280	6580.276	23.50099

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD8	123	13.09512	6.075803	0.547837
All	281	13.55480	4.847782	0.289194

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:14

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	223	1.897699	0.0590
Satterthwaite-Welch t-test*	116.4028	1.840486	0.0682
Anova F-test	(1, 223)	3.601260	0.0590
Welch F-test*	(1, 116.403)	3.387390	0.0682

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	48.81810	48.81810
Within	223	3022.952	13.55584
Total	224	3071.770	13.71326

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD0	158	13.91266	3.596154	0.286095
BOARD9	67	12.89403	3.878022	0.473776
All	225	13.60933	3.703142	0.246876

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:18

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	413	-1.488784	0.1373
Satterthwaite-Welch t-test*	223.7300	-1.433645	0.1531
Anova F-test	(1, 413)	2.216478	0.1373
Welch F-test*	(1, 223.73)	2.055338	0.1531

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	40.45553	40.45553
Within	413	7538.145	18.25217
Total	414	7578.601	18.30580

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD2	128	13.40391	4.564247	0.403426
All	415	12.93639	4.278528	0.210025

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:19

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	328	-2.285129	0.0229
Satterthwaite-Welch t-test*	52.17633	-2.076559	0.0428
Anova F-test	(1, 328)	5.221812	0.0229
Welch F-test*	(1, 52.1763)	4.312099	0.0428

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	92.70320	92.70320
Within	328	5823.007	17.75307
Total	329	5915.710	17.98088

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD3	43	14.30233	4.707061	0.717820
All	330	12.93303	4.240387	0.233426

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:20

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	349	-0.902408	0.3675
Satterthwaite-Welch t-test*	111.9281	-1.040999	0.3001
Anova F-test	(1, 349)	0.814340	0.3675
Welch F-test*	(1, 111.928)	1.083679	0.3001

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	13.01405	13.01405
Within	349	5577.402	15.98109
Total	350	5590.416	15.97262

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD4	64	13.22656	3.297341	0.412168
All	351	12.81880	3.996576	0.213321

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:21

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	367	-3.401477	0.0007
Satterthwaite-Welch t-test*	107.3345	-2.879059	0.0048
Anova F-test	(1, 367)	11.57004	0.0007
Welch F-test*	(1, 107.334)	8.288978	0.0048

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	234.7351	234.7351
Within	367	7445.761	20.28818
Total	368	7680.496	20.87091

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD5	82	14.64634	5.614492	0.620017
All	369	13.15420	4.568469	0.237825

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:22

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	294	-2.945661	0.0035
Satterthwaite-Welch t-test*	8.305412	-2.322148	0.0476
Anova F-test	(1, 294)	8.676922	0.0035
Welch F-test*	(1, 8.30541)	5.392373	0.0476

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	151.0884	151.0884
Within	294	5119.326	17.41267
Total	295	5270.414	17.86581

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD6	9	16.88889	5.325515	1.775172
All	296	12.85439	4.226797	0.245678

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/19/10 Time: 04:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	314	-1.429351	0.1539
Satterthwaite-Welch t-test*	33.57489	-1.396839	0.1716
Anova F-test	(1, 314)	2.043045	0.1539
Welch F-test*	(1, 33.5749)	1.951160	0.1716

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	35.12931	35.12931
Within	314	5399.098	17.19458
Total	315	5434.228	17.25152

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD7	29	13.88276	4.253828	0.789916
All	316	12.83386	4.153494	0.233652

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:24

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	408	-0.710095	0.4781
Satterthwaite-Welch t-test*	172.3697	-0.612309	0.5411
Anova F-test	(1, 408)	0.504234	0.4781
Welch F-test*	(1, 172.37)	0.374923	0.5411

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	11.61236	11.61236
Within	408	9396.114	23.02969
Total	409	9407.726	23.00178

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD8	123	13.09512	6.075803	0.547837
All	410	12.83805	4.796017	0.236858

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:25

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	352	-0.299494	0.7647
Satterthwaite-Weich t-test*	104.0127	-0.311748	0.7559
Anova F-test	(1, 352)	0.089697	0.7647
Welch F-test*	(1, 104.013)	0.097187	0.7559

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.499622	1.499622
Within	352	5885.015	16.71879
Total	353	5886.514	16.67568

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD1	287	12.72787	4.135991	0.244140
BOARD9	67	12.89403	3.878022	0.473776
All	354	12.75932	4.083586	0.217040

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:27

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	169	-1.108021	0.2694
Satterthwaite-Weich t-test*	70.39987	-1.091084	0.2790
Anova F-test	(1, 169)	1.227710	0.2694
Welch F-test*	(1, 70.3999)	1.190465	0.2790

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	25.98008	25.98008
Within	169	3576.278	21.16141
Total	170	3602.258	21.18975

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD3	43	14.30233	4.707061	0.717820
All	171	13.62982	4.603233	0.352018

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	190	0.276676	0.7823
Satterthwaite-Welch t-test*	165.9694	0.307491	0.7589
Anova F-test	(1, 190)	0.076549	0.7823
Welch F-test*	(1, 165.969)	0.094551	0.7589

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.341901	1.341901
Within	190	3330.673	17.52986
Total	191	3332.015	17.44510

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD4	64	13.22656	3.297341	0.412168
All	192	13.34479	4.176734	0.301430

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:30

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	208	-1.756898	0.0804
Satterthwaite-Welch t-test*	147.2690	-1.679620	0.0952
Anova F-test	(1, 208)	3.086689	0.0804
Welch F-test*	(1, 147.269)	2.821125	0.0952

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	77.15286	77.15286
Within	208	5199.032	24.99535
Total	209	5276.185	25.24490

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD5	82	14.64634	5.614492	0.620017
All	210	13.88905	5.024431	0.346719

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	135	-2.190767	0.0302
Satterthwaite-Welch t-test*	8.846210	-1.914367	0.0884
Anova F-test	(1, 135)	4.799458	0.0302
Welch F-test*	(1, 8.84621)	3.664801	0.0884

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	102.1253	102.1253
Within	135	2872.597	21.27850
Total	136	2974.722	21.87296

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD6	9	16.88889	5.325515	1.775172
All	137	13.63285	4.676853	0.399571

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:33

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	155	-0.516301	0.6064
Satterthwaite-Welch t-test*	43.85396	-0.539873	0.5920
Anova F-test	(1, 155)	0.266567	0.6064
Welch F-test*	(1, 43.854)	0.291463	0.5920

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.421402	5.421402
Within	155	3152.369	20.33787
Total	156	3157.791	20.24225

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD7	29	13.88276	4.253828	0.789916
All	157	13.49236	4.499139	0.359070

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:34

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	249	0.456395	0.6485
Satterthwaite-Welch t-test*	226.2731	0.453860	0.6504
Anova F-test	(1, 249)	0.208297	0.6485
Welch F-test*	(1, 226.273)	0.205989	0.6504

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.980697	5.980697
Within	249	7149.385	28.71239
Total	250	7155.366	28.62146

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD8	128	13.40391	4.564247	0.403426
BOARD9	123	13.09512	6.075803	0.547837
All	251	13.25259	5.349903	0.337683

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:35

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	193	0.778790	0.4371
Satterthwaite-Welch t-test*	154.2615	0.819385	0.4138
Anova F-test	(1, 193)	0.606514	0.4371
Welch F-test*	(1, 154.262)	0.671392	0.4138

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	11.43352	11.43352
Within	193	3638.286	18.85122
Total	194	3649.719	18.81299

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD2	128	13.40391	4.564247	0.403426
BOARD9	87	12.89403	3.878022	0.473776
All	195	13.22872	4.337394	0.310607

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:36

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	105	1.390867	0.1672
Satterthwaite-Welch t-test*	69.24729	1.299644	0.1980
Anova F-test	(1, 105)	1.934510	0.1672
Welch F-test*	(1, 69.2423)	1.689075	0.1980

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	29.76445	29.76445
Within	105	1615.535	15.38604
Total	106	1645.299	15.52169

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	43	14.30233	4.707061	0.717820
BOARD4	64	13.22656	3.297341	0.412168
All	107	13.66888	3.939758	0.380871

Test for Equality of Means Between Series

Date: 01/16/10 Time: 02:37

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	123	-0.343309	0.7320
Satterthwaite-Welch t-test*	99.36808	-0.362688	0.7176
Anova F-test	(1, 123)	0.117861	0.7320
Welch F-test*	(1, 99.3681)	0.131542	0.7176

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	3.338330	3.338330
Within	123	3483.894	28.32434
Total	124	3487.232	28.12284

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	43	14.30233	4.707061	0.717820
BOARD5	82	14.64634	5.614492	0.620017
All	125	14.52800	5.303097	0.474323

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:06

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	50	-1.466592	0.1487
Satterthwaite-Welch t-test*	10.77521 (1, 50)	-1.350819	0.2044
Anova F-test		2.150891	0.1487
Welch F-test*	(1, 10.7752)	1.824713	0.2044

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	49.79134	49.79134
Within	50	1157.459	23.14917
Total	51	1207.250	23.67157

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	43	14.30233	4.707061	0.717820
BOARD6	9	16.88889	5.325515	1.775172
All	52	14.75000	4.865344	0.674702

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:07

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	70	0.385349	0.7011
Satterthwaite-Welch t-test*	84.16678 (1, 70)	0.393093	0.6956
Anova F-test		0.148494	0.7011
Welch F-test*	(1, 84.1668)	0.154522	0.6956

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	3.048853	3.048853
Within	70	1437.231	20.53187
Total	71	1440.280	20.28563

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	43	14.30233	4.707061	0.717820
BOARD7	29	13.88276	4.253828	0.789916
All	72	14.13333	4.503958	0.530796

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:08

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	164	1.183765	0.2382
Satterthwaite-Welch t-test*	94.17686	1.336896	0.1845
Anova F-test	(1, 164)	1.401300	0.2382
Welch F-test*	(1, 94.1769)	1.787291	0.1845

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	46.43298	46.43298
Within	164	5434.247	33.13565
Total	165	5480.680	33.21624

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	43	14.30233	4.707061	0.717820
BOARD8	123	13.09512	6.075803	0.547837
All	166	13.40783	5.763353	0.447323

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	108	1.707948	0.0905
Satterthwaite-Welch t-test*	77.23578	1.637410	0.1056
Anova F-test	(1, 108)	2.917088	0.0905
Welch F-test*	(1, 77.2358)	2.681112	0.1056

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	51.94435	51.94435
Within	108	1923.147	17.80692
Total	109	1975.092	18.12011

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD3	43	14.30233	4.707061	0.717820
BOARD9	67	12.89403	3.878022	0.473776
All	110	13.44455	4.256772	0.405867

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:11

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	144	-1.795001	0.0748
Satterthwaite-Welch t-test*	134.6101	-1.906984	0.0587
Anova F-test	(1, 144)	3.222028	0.0748
Welch F-test*	(1, 134.61)	3.636589	0.0587

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	72.45735	72.45735
Within	144	3238.289	22.48812
Total	145	3310.746	22.83273

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	64	13.22656	3.297341	0.412168
BOARD5	82	14.64634	5.614492	0.620017
All	146	14.02397	4.778361	0.395460

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:13

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	71	-2.870605	0.0054
Satterthwaite-Welch t-test*	8.882527	-2.009625	0.0758
Anova F-test	(1, 71)	8.240373	0.0054
Welch F-test*	(1, 8.88253)	4.038592	0.0758

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	105.8312	105.8312
Within	71	911.8537	12.84301
Total	72	1017.685	14.13451

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	64	13.22656	3.297341	0.412168
BOARD6	9	16.88889	5.325515	1.775172
All	73	13.67808	3.759589	0.440027

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	91	-0.810087	0.4200
Satterthwaite-Weich t-test*	43.87665	-0.736486	0.4654
Anova F-test	(1, 91)	0.656241	0.4200
Welch F-test*	(1, 43.8767)	0.542412	0.4654

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	8.593347	8.593347
Within	91	1191.626	13.09479
Total	92	1200.220	13.04586

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD7	64	13.22656	3.297341	0.412168
BOARD8	29	13.88276	4.253828	0.789916
All	93	13.43118	3.611906	0.374537

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:21

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	0.161031	0.8722
Satterthwaite-Weich t-test*	184.6407	0.191724	0.8482
Anova F-test	(1, 185)	0.025931	0.8722
Welch F-test*	(1, 184.641)	0.036758	0.8482

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.727281	0.727281
Within	185	5188.642	28.04671
Total	186	5189.369	27.89983

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	64	13.22656	3.297341	0.412168
BOARD8	123	13.09512	6.075803	0.547837
All	187	13.14011	5.282029	0.386260

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:22

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	128	0.527575	0.5987
Satterthwaite-Welch t-test*	127.3109	0.529536	0.5974
Anova F-test	(1, 128)	0.278335	0.5987
Welch F-test*	(1, 127.311)	0.280409	0.5974

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	3.619529	3.619529
Within	128	1677.542	13.00421
Total	130	1681.162	12.93202

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD4	64	13.22656	3.297341	0.412168
BOARD9	67	12.89403	3.878022	0.473776
All	131	13.05649	3.596111	0.314194

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:27

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	89	-1.142629	0.2563
Satterthwaite-Welch t-test*	10.05612	-1.192633	0.2604
Anova F-test	(1, 89)	1.305600	0.2563
Welch F-test*	(1, 10.0561)	1.422372	0.2604

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	40.78479	40.78479
Within	89	2780.213	31.23835
Total	90	2820.998	31.34442

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD6	9	16.88889	5.325515	1.775172
All	91	14.86813	5.598609	0.586894

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:28

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	0.667044	0.5062
Satterthwaite-Welch t-test*	64.64681	0.760400	0.4498
Anova F-test	(1, 109)	0.444947	0.5062
Welch F-test*	(1, 64.6468)	0.578209	0.4498

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	12.49111	12.49111
Within	109	3059.985	28.07326
Total	110	3072.476	27.93160

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD7	29	13.80276	4.253828	0.789916
All	111	14.44685	5.285036	0.501633

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	203	1.845414	0.0664
Satterthwaite-Welch t-test*	182.8512	1.874873	0.0624
Anova F-test	(1, 203)	3.405552	0.0664
Welch F-test*	(1, 182.851)	3.515150	0.0624

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	118.3891	118.3891
Within	203	7057.001	34.76355
Total	204	7175.390	35.17348

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD8	123	13.09512	6.075803	0.547837
All	205	13.71561	5.930723	0.414220

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:30

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	147	2.166496	0.0319
Satterthwaite-Welch t-test*	143.2630	2.245659	0.0263
Anova F-test	(1, 147)	4.693704	0.0319
Welch F-test*	(1, 143.263)	5.042986	0.0263

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	113.2205	113.2205
Within	147	3545.902	24.12178
Total	148	3659.122	24.72380

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD5	82	14.64634	5.614492	0.620017
BOARD9	67	12.86403	3.878022	0.473776
All	149	13.86839	4.972303	0.407347

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:36

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	36	1.745310	0.0895
Satterthwaite-Welch t-test*	11.35458	1.547169	0.1492
Anova F-test	(1, 36)	3.046107	0.0895
Welch F-test*	(1, 11.3546)	2.393731	0.1492

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	62.06868	62.06868
Within	36	733.5503	20.37640
Total	37	795.6189	21.50321

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD6	9	16.88889	5.325515	1.775172
BOARD7	29	13.88276	4.253828	0.789916
All	38	14.59474	4.637156	0.752246

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:37

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	130	1.821263	0.0709
Satterthwaite-Welch t-test*	9.590709	2.042093	0.0696
Anova F-test	(1, 130)	3.316998	0.0709
Welch F-test*	(1, 9.59071)	4.170144	0.0696

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	120.7021	120.7021
Within	130	4730.566	36.38997
Total	131	4851.268	37.03258

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD6	9	16.88889	5.325515	1.775172
BOARD8	123	13.09512	6.075803	0.547837
All	132	13.35379	6.085440	0.529670

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:38

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	74	2.771943	0.0070
Satterthwaite-Welch t-test*	9.174633	2.174301	0.0571
Anova F-test	(1, 74)	7.683666	0.0070
Welch F-test*	(1, 9.17463)	4.727585	0.0571

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	126.6213	126.6213
Within	74	1219.467	16.47928
Total	75	1346.088	17.94784

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD6	9	16.88889	5.325515	1.775172
BOARD9	67	12.89403	3.878022	0.473776
All	76	13.36711	4.236489	0.485959

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	150	0.860188	0.5101
Satterthwaite-Weich t-test*	58.31716	0.819348	0.4159
Anova F-test	(1, 150)	0.435848	0.5101
Weich F-test*	(1, 58.3172)	0.671331	0.4159

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.55832	14.55832
Within	150	5010.338	33.40226
Total	151	5024.897	33.27746

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD7	29	13.88276	4.253828	0.789916
BOARD8	123	13.09512	6.075803	0.547837
All	152	13.24539	5.768662	0.467900

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:42

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	94	1.113798	0.2682
Satterthwaite-Weich t-test*	49.07445	1.073418	0.2883
Anova F-test	(1, 94)	1.240546	0.2682
Weich F-test*	(1, 49.0745)	1.152227	0.2883

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	19.78590	19.78590
Within	94	1499.239	15.94935
Total	95	1519.025	15.98974

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD7	29	13.88276	4.253828	0.789916
BOARD9	67	12.89403	3.878022	0.473776
All	96	13.19271	3.998717	0.408117

2008 Board Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 03:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	188	0.244937	0.8068
Satterthwaite-Welch t-test*	183.2530	0.277642	0.7816
Anova F-test	(1, 188)	0.059994	0.8068
Welch F-test*	(1, 183.253)	0.077085	0.7816

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.753946	1.753946
Within	188	5496.255	29.23540
Total	189	5498.009	29.08999

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BOARD8	123	13.09512	6.075803	0.547837
BOARD9	67	12.89403	3.878022	0.473776
All	190	13.02421	5.393514	0.391287

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:14

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	443	2.545629	0.0112
Satterthwaite-Welch t-test*	341.8059	2.594062	0.0099
Anova F-test	(1, 443)	6.480225	0.0112
Welch F-test*	(1, 341.806)	6.729159	0.0099

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	992.5000	992.5000
Within	443	67849.10	153.1582
Total	444	68841.60	155.0487

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM1	287	30.68293	12.65185	0.746815
All	445	31.79101	12.45185	0.590274

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:17

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	284	2.214552	0.0276
Satterthwaite-Welch t-test*	251.4126	2.179512	0.0302
Anova F-test	(1, 284)	4.904240	0.0276
Welch F-test*	(1, 251.413)	4.750274	0.0302

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	799.4614	799.4614
Within	284	46296.07	163.0143
Total	285	47095.53	165.2475

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM2	128	30.44141	13.81167	1.220791
All	286	32.29895	12.85486	0.760124

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:18

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	199	1.541396	0.1248
Satterthwaite-Welch t-test*	72.39602	1.632008	0.1070
Anova F-test	(1, 199)	2.375901	0.1248
Welch F-test*	(1, 72.396)	2.663451	0.1070

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	321.2470	321.2470
Within	199	26906.91	135.2106
Total	200	27228.16	136.1408

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.60380	11.85616	0.943225
FIRM3	43	30.72093	10.73230	1.636660
All	201	33.14428	11.66794	0.822993

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:19

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	220	2.871105	0.0045
Satterthwaite-Welch t-test*	153.3683	3.228004	0.0015
Anova F-test	(1, 220)	8.243246	0.0045
Welch F-test*	(1, 153.368)	10.42001	0.0015

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1015.867	1015.867
Within	220	27111.98	123.2363
Total	221	28127.84	127.2753

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM4	64	29.08125	8.946683	1.118335
All	222	32.44234	11.28164	0.757174

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:24

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	238	-1.180662	0.2389
Satterthwaite-Welch t-test*	104.1341	-0.980780	0.3290
Anova F-test	(1, 238)	1.393962	0.2389
Welch F-test*	(1, 104.134)	0.961930	0.3290

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	377.3157	377.3157
Within	238	64421.50	270.6786
Total	239	64798.82	271.1248

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80390	11.85616	0.943225
FIRM5	82	36.44756	22.86629	2.525159
All	240	34.71708	16.46597	1.062867

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:28

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	165	-1.599141	0.1117
Satterthwaite-Welch t-test*	8.594104	-1.310142	0.2241
Anova F-test	(1, 165)	2.557251	0.1117
Welch F-test*	(1, 8.5941)	1.716471	0.2241

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	369.2383	369.2383
Within	165	23824.15	144.3888
Total	166	24193.38	145.7433

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM6	9	40.38889	14.81084	4.936948
All	167	34.15868	12.07242	0.934192

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	-1.890699	0.0926
Satterthwaite-Welch t-test*	32.55517 (1, 185)	-1.272093	0.2124
Anova F-test		2.858465	0.0926
Welch F-test*	(1, 32.5552)	1.618221	0.2124

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	482.5099	482.5099
Within	185	31228.07	168.8004
Total	186	31710.58	170.4870

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM7	29	38.24138	18.08592	3.358470
All	187	34.49198	13.05707	0.954827

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:30

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	279	1.351877	0.1775
Satterthwaite-Welch t-test*	203.2228 (1, 279)	1.289357	0.1987
Anova F-test		1.827571	0.1775
Welch F-test*	(1, 203.223)	1.662440	0.1987

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	393.6991	393.6991
Within	279	60102.76	215.4221
Total	280	60496.46	216.0588

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM8	123	31.41789	17.65644	1.592028
All	281	32.75943	14.69894	0.876865

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	223	3.280698	0.0012
Satterthwaite-Weich t-test*	126.5982	3.305860	0.0012
Anova F-test	(1, 223)	10.76298	0.0012
Weich F-test*	(1, 126.598)	10.92871	0.0012

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1496.404	1496.404
Within	223	31004.25	139.0325
Total	224	32500.66	145.0922

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM0	158	33.80380	11.85616	0.943225
FIRM9	67	28.16418	11.63524	1.421470
All	225	32.12444	12.04542	0.803028

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:32

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	413	0.174535	0.8615
Satterthwaite-Weich t-test*	225.7995	0.168765	0.8661
Anova F-test	(1, 413)	0.030462	0.8615
Weich F-test*	(1, 225.799)	0.028482	0.8661

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	5.163594	5.163594
Within	413	70006.66	169.5076
Total	414	70011.82	169.1107

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM2	128	30.44141	13.81167	1.220791
All	415	30.60843	13.00426	0.638354

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:34

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	328	-0.018708	0.9851
Satterthwaite-Welch t-test*	60.92292	-0.021125	0.9832
Anova F-test	(1, 328)	0.000350	0.9851
Welch F-test*	(1, 60.9229)	0.000446	0.9832

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.054011	0.054011
Within	328	50617.50	154.3216
Total	329	50617.55	153.8527

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM3	43	30.72093	10.73230	1.636660
All	330	30.68788	12.40374	0.682803

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:47

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	349	0.960145	0.3376
Satterthwaite-Welch t-test*	126.1899	1.191041	0.2359
Anova F-test	(1, 349)	0.921878	0.3376
Welch F-test*	(1, 126.19)	1.418579	0.2359

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	134.2470	134.2470
Within	349	50822.56	145.6234
Total	350	50956.81	145.5909

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM4	64	29.08125	8.946683	1.118335
All	351	30.39088	12.06610	0.644041

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	367	-2.970793	0.0032
Satterthwaite-Welch t-test*	95.58240	-2.189146	0.0310
Anova F-test	(1, 367)	8.825613	0.0032
Welch F-test*	(1, 95.5824)	4.792361	0.0310

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2119.400	2119.400
Within	367	88132.09	240.1419
Total	368	90251.49	245.2486

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM5	82	36.44756	22.86629	2.525159
All	369	31.96396	15.66042	0.815249

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:50

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	294	-2.254878	0.0249
Satterthwaite-Welch t-test*	8.370191	-1.943869	0.0862
Anova F-test	(1, 294)	5.084475	0.0249
Welch F-test*	(1, 8.37019)	3.778628	0.0862

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	822.0720	822.0720
Within	294	47534.74	161.6828
Total	295	48356.81	163.9214

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM6	9	40.38889	14.81084	4.936948
All	296	30.97804	12.80318	0.744170

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:51

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	314	-2.932615	0.0036
Satterthwaite-Weich t-test*	30.83014	-2.196904	0.0357
Anova F-test	(1, 314)	8.600233	0.0036
Welch F-test*	(1, 30.8301)	4.826386	0.0357

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1504.730	1504.730
Within	314	54938.66	174.9639
Total	315	56443.39	179.1854

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM7	29	38.24138	18.08592	3.358470
All	316	31.37658	13.38601	0.753022

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:52

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	408	-0.475815	0.6345
Satterthwaite-Weich t-test*	177.9250	-0.417949	0.6765
Anova F-test	(1, 408)	0.226400	0.6345
Welch F-test*	(1, 177.925)	0.174682	0.6765

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	46.50823	46.50823
Within	408	83813.35	205.4249
Total	409	83859.86	205.0363

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.746815
FIRM8	123	31.41789	17.65644	1.592028
All	410	30.90341	14.31909	0.707169

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:53

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	352	1.488950	0.1374
Satterthwaite-Welch t-test*	105.6073	1.568617	0.1197
Anova F-test	(1, 352)	2.216973	0.1374
Welch F-test*	(1, 105.607)	2.460561	0.1197

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	344.6060	344.6060
Within	352	54714.84	155.4399
Total	353	55059.45	155.9758

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM1	287	30.68293	12.65185	0.745815
FIRM9	67	28.16418	11.63524	1.421470
All	354	30.20621	12.48903	0.663784

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:55

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	169	-0.120927	0.9039
Satterthwaite-Welch t-test*	92.28873	-0.136900	0.8914
Anova F-test	(1, 169)	0.014623	0.9039
Welch F-test*	(1, 92.2887)	0.018742	0.8914

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2.514899	2.514899
Within	169	29064.46	171.9791
Total	170	29066.98	170.9822

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM3	43	30.72093	10.73230	1.636660
All	171	30.51170	13.07602	0.999948

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 17:56

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	190	0.715817	0.4750
Satterthwaite-Welch t-test*	177.5426	0.821550	0.4124
Anova F-test	(1, 190)	0.512394	0.4750
Welch F-test*	(1, 177.543)	0.674944	0.4124

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	78.93440	78.93440
Within	190	29269.53	154.0501
Total	191	29348.46	153.6569

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM4	64	29.08125	8.94683	1.118335
All	192	29.98802	12.39584	0.894593

Test for Equality of Means Between Series

Date: 01/16/10 Time: 18:05

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	208	-2.373349	0.0185
Satterthwaite-Welch t-test*	119.1374	-2.141404	0.0343
Anova F-test	(1, 208)	5.632786	0.0185
Welch F-test*	(1, 119.137)	4.585610	0.0343

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1803.008	1803.008
Within	208	66579.06	320.0916
Total	209	68382.06	327.1869

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM5	82	36.44756	22.86629	2.525159
All	210	32.78667	18.08831	1.248212

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 18:06

Sample: 1.288

Included observations: 288

Method	df	Value	Probability
t-test	135	-2.079277	0.0395
Satterthwaite-Welch t-test*	9.006119	-1.955992	0.0822
Anova F-test	(1, 135)	4.323391	0.0395
Welch F-test*	(1, 9.00612)	3.825906	0.0822

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	832.0670	832.0670
Within	135	25981.70	192.4570
Total	136	26813.77	197.1600

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM6	9	40.38889	14.81084	4.936948
All	137	31.09489	14.04137	1.199635

Test for Equality of Means Between Series

Date: 01/16/10 Time: 18:08

Sample: 1.288

Included observations: 288

Method	df	Value	Probability
t-test	155	-2.584243	0.0107
Satterthwaite-Welch t-test*	35.75047	-2.192748	0.0357
Anova F-test	(1, 155)	6.678313	0.0107
Welch F-test*	(1, 35.7505)	4.764388	0.0357

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1438.449	1438.449
Within	155	33385.62	215.3911
Total	156	34824.07	223.2312

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM7	29	38.24138	18.08592	3.358470
All	157	31.88217	14.94092	1.192416

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 18:11

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	249	-0.489078	0.6252
Satterthwaite-Welch t-test*	230.9482	-0.486728	0.6269
Anova F-test	(1, 249)	0.239197	0.6252
Welch F-test*	(1, 230.948)	0.236905	0.6269

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	59.80920	59.80920
Within	249	62260.31	250.0414
Total	250	62320.12	249.2805

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRMB	123	31.41789	17.65644	1.592028
All	251	30.91992	15.78862	0.996569

Test for Equality of Means Between Series

Date: 01/16/10 Time: 18:13

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	193	1.152102	0.2507
Satterthwaite-Welch t-test*	155.3461	1.215337	0.2261
Anova F-test	(1, 193)	1.327339	0.2507
Welch F-test*	(1, 155.346)	1.477043	0.2261

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	228.0672	228.0672
Within	193	33161.80	171.8228
Total	194	33389.87	172.1127

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM2	128	30.44141	13.81167	1.220791
FIRM9	67	28.16418	11.63524	1.421470
All	195	29.65897	13.11917	0.938484

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:19

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	105	0.857234	0.3933
Satterthwaite-Welch t-test*	78.90796	0.827180	0.4106
Anova F-test	(1, 105)	0.734851	0.3933
Welch F-test*	(1, 78.908)	0.684227	0.4106

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	69.14853	69.14853
Within	105	9880.369	94.09875
Total	106	9949.517	93.86337

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	43	30.72093	10.73230	1.636660
FIRM4	64	29.08125	8.946683	1.118335
All	107	29.74019	9.688311	0.936604

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:21

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	123	-1.552792	0.1230
Satterthwaite-Welch t-test*	121.8708	-1.903062	0.0594
Anova F-test	(1, 123)	2.411164	0.1230
Welch F-test*	(1, 121.871)	3.621645	0.0594

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	925.0616	925.0616
Within	123	47189.90	383.6577
Total	124	48114.96	388.0238

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	43	30.72093	10.73230	1.636660
FIRM5	82	36.44756	22.86629	2.525159
All	125	34.47760	19.69832	1.761871

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:22

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	50	-2.296927	0.0258
Satterthwaite-Welch t-test*	9.832413	-1.858807	0.0932
Anova F-test	(1, 50)	5.275874	0.0258
Welch F-test*	(1, 9.83241)	3.455182	0.0932

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	695.6282	695.6282
Within	50	6592.540	131.8508
Total	51	7288.168	142.9053

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	43	30.72093	10.73230	1.636660
FIRM6	9	40.38889	14.81084	4.936948
All	52	32.39423	11.95430	1.657763

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	70	-2.213353	0.0301
Satterthwaite-Welch t-test*	41.32448	-2.012948	0.0507
Anova F-test	(1, 70)	4.898931	0.0301
Welch F-test*	(1, 41.3245)	4.051959	0.0507

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	979.5385	979.5385
Within	70	13996.46	199.9495
Total	71	14976.00	210.9296

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	43	30.72093	10.73230	1.636660
FIRM7	29	38.24138	18.08592	3.358470
All	72	33.75000	14.52341	1.711601

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:33

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	164	-0.243320	0.8081
Satterthwaite-Welch t-test*	121.6033	-0.305248	0.7607
Anova F-test	(1, 164)	0.059205	0.8081
Welch F-test*	(1, 121.603)	0.093176	0.7607

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	15.47662	15.47662
Within	164	42871.15	261.4095
Total	165	42886.63	259.9190

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	43	30.72093	10.73230	1.636660
FIRM8	123	31.41789	17.65644	1.592028
All	166	31.23735	16.12200	1.251310

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:36

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	108	1.158689	0.2491
Satterthwaite-Welch t-test*	94.89910	1.179438	0.2412
Anova F-test	(1, 108)	1.342561	0.2491
Welch F-test*	(1, 94.8991)	1.391073	0.2412

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	171.2094	171.2094
Within	108	13772.65	127.5245
Total	109	13943.85	127.9253

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM3	43	30.72093	10.73230	1.636660
FIRM9	67	28.16418	11.63524	1.421470
All	110	29.16364	11.31041	1.078405

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:39

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	144	-2.434365	0.0161
Satterthwaite-Welch t-test*	110.4288	-2.667290	0.0088
Anova F-test	(1, 144)	5.926133	0.0161
Welch F-test*	(1, 110.429)	7.114436	0.0088

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1950.478	1950.478
Within	144	47394.96	329.1317
Total	145	49345.44	340.3134

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	64	29.08125	8.946683	1.118335
FIRM5	82	36.44756	22.86629	2.525159
All	146	33.21849	18.44758	1.526733

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:42

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	71	-3.246182	0.0018
Satterthwaite-Welch t-test*	8.839116	-2.233816	0.0529
Anova F-test	(1, 71)	10.53770	0.0018
Welch F-test*	(1, 8.83912)	4.989933	0.0529

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1008.889	1008.889
Within	71	6797.606	95.74094
Total	72	7806.496	108.4236

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	64	29.08125	8.946683	1.118335
FIRM6	9	40.38889	14.81084	4.936948
All	73	30.47534	10.41266	1.218710

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	91	-3.275686	0.0015
Satterthwaite-Welch t-test*	34.36586	-2.587773	0.0141
Anova F-test	(1, 91)	10.73012	0.0015
Welch F-test*	(1, 34.3659)	6.696567	0.0141

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1674.550	1674.550
Within	91	14201.53	156.0607
Total	92	15876.08	172.5661

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	64	29.08125	8.946683	1.118335
FIRM7	29	38.24138	18.08592	3.358470
All	93	31.93763	13.13644	1.362185

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:50

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	185	-0.993528	0.3218
Satterthwaite-Welch t-test*	184.9155	-1.201006	0.2313
Anova F-test	(1, 185)	0.987097	0.3218
Welch F-test*	(1, 184.915)	1.442415	0.2313

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	229.8400	229.8400
Within	185	43076.22	232.8444
Total	186	43306.06	232.8283

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	64	29.08125	8.946683	1.118335
FIRM8	123	31.41789	17.65644	1.592028
All	187	30.61818	15.25871	1.115827

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:51

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	129	0.504048	0.6151
Satterthwaite-Welch t-test*	123.4438	0.507044	0.6130
Anova F-test	(1, 129)	0.254064	0.6151
Welch F-test*	(1, 123.444)	0.257094	0.6130

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	27.52893	27.52893
Within	129	13977.71	108.3544
Total	130	14005.24	107.7326

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM4	64	29.08125	8.946683	1.118335
FIRM9	67	28.16418	11.63524	1.421470
All	131	28.61221	10.37943	0.906855

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:53

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	89	-0.504186	0.6154
Satterthwaite-Welch t-test*	12.64786	-0.710756	0.4901
Anova F-test	(1, 89)	0.254203	0.6154
Welch F-test*	(1, 12.6479)	0.505175	0.4901

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	125.9796	125.9796
Within	89	44107.13	495.5858
Total	90	44233.11	491.4790

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM6	9	40.38889	14.81084	4.936948
All	91	36.83736	22.16933	2.323977

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/18/10 Time: 20:56

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	-0.381932	0.7033
Satterthwaite-Weich t-test*	61.78113 (1, 109)	-0.426909	0.6709
Anova F-test		0.145872	0.7033
Welch F-test*	(1, 61.7811)	0.182251	0.6709

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	68.93595	68.93595
Within	109	51511.05	472.5785
Total	110	51579.99	468.9090

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM7	29	38.24138	18.08592	3.358470
All	111	36.91622	21.65431	2.055336

Test for Equality of Means Between Series

Date: 01/16/10 Time: 20:57

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	203	1.772887	0.0777
Satterthwaite-Weich t-test*	143.1721	1.684912	0.0942
Anova F-test	(1, 203)	3.143127	0.0777
Welch F-test*	(1, 143.172)	2.838927	0.0942

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1244.643	1244.643
Within	203	80385.75	395.9889
Total	204	81630.39	400.1490

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM8	123	31.41789	17.65644	1.592028
All	205	33.42976	20.00372	1.397121

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:05

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	147	2.692854	0.0079
Satterthwaite-Weich t-test*	125.0570	2.858548	0.0050
Anova F-test	(1, 147)	7.251465	0.0079
Weich F-test*	(1, 125.057)	8.171294	0.0050

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2529.984	2529.984
Within	147	51287.24	348.8928
Total	148	53817.22	363.6299

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM5	82	36.44756	22.86629	2.525159
FIRM9	67	28.16418	11.63524	1.421470
All	149	32.72282	19.06908	1.562200

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:06

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	36	0.323243	0.7484
Satterthwaite-Weich t-test*	16.13059	0.359657	0.7238
Anova F-test	(1, 36)	0.104486	0.7484
Weich F-test*	(1, 16.1306)	0.129353	0.7238

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	31.67577	31.67577
Within	36	10913.70	303.1583
Total	37	10945.37	295.8209

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM6	9	40.38889	14.81084	4.936948
FIRM7	29	38.24138	18.08592	3.358470
All	38	38.75000	17.19945	2.790119

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:08

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	130	1.484982	0.1400
Satterthwaite-Welch t-test*	9.743411	1.729419	0.1152
Anova F-test	(1, 130)	2.205173	0.1400
Welch F-test*	(1, 9.74341)	2.990890	0.1152

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	674.9252	674.9252
Within	130	39788.39	306.0645
Total	131	40463.31	308.8803

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM6	9	40.38889	14.81084	4.936948
FIRM8	123	31.41789	17.65644	1.592028
All	132	32.02955	17.57499	1.529707

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:09

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	74	2.864968	0.0054
Satterthwaite-Welch t-test*	9.373584	2.379500	0.0402
Anova F-test	(1, 74)	8.208043	0.0054
Welch F-test*	(1, 9.37358)	5.662019	0.0402

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1185.716	1185.716
Within	74	10689.88	144.4579
Total	75	11875.60	158.3413

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM6	9	40.38889	14.81084	4.936948
FIRM9	67	28.16418	11.63524	1.421470
All	76	29.61184	12.58337	1.443412

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:12

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	150	1.863574	0.0643
Satterthwaite-Welch t-test*	41.51634	1.835900	0.0735
Anova F-test	(1, 150)	3.472906	0.0643
Welch F-test*	(1, 41.5163)	3.370528	0.0735

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1092.630	1092.630
Within	150	47192.31	314.6154
Total	151	48284.94	319.7678

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM7	29	38.24138	18.08592	3.358470
FIRM8	123	31.41789	17.65644	1.592028
All	152	32.71974	17.88205	1.450426

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	94	3.267681	0.0015
Satterthwaite-Welch t-test*	38.40749	2.763221	0.0087
Anova F-test	(1, 94)	10.67774	0.0015
Welch F-test*	(1, 38.4075)	7.635393	0.0087

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	2055.329	2055.329
Within	94	18093.80	192.4873
Total	95	20149.13	212.0961

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM7	29	38.24138	18.08592	3.358470
FIRM9	67	28.16418	11.63524	1.421470
All	96	31.20833	14.56352	1.486383

2008 Firm Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:27

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	188	1.355711	0.1768
Satterthwaite- Welch t-test*	181.1921	1.524502	0.1291
Anova F-test	(1, 188)	1.837953	0.1768
Welch F-test*	(1, 181.192)	2.324107	0.1291

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	459.1803	459.1803
Within	188	46968.49	249.8324
Total	189	47427.67	250.9401

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
FIRM8	123	31.41789	17.65644	1.592028
FIRM9	67	28.16418	11.63524	1.421470
All	190	30.27053	15.84109	1.149233

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 21:59

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	293	-1.393774	0.1644
Satterthwaite-Welch t-test*	250.7333	-1.378782	0.1692
Anova F-test	(1, 293)	1.942606	0.1644
Welch F-test*	(1, 250.733)	1.901039	0.1692

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.442128	0.442128
Within	293	66.68537	0.227595
Total	294	67.12750	0.228325

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF1	143	0.532247	0.558007	0.046663
All	295	0.492334	0.477833	0.027821

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:05

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	275	-10.59735	0.0000
Satterthwaite-Welch t-test*	182.5919	-10.04684	0.0000
Anova F-test	(1, 275)	112.3038	0.0000
Welch F-test*	(1, 182.592)	100.9390	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	34.74165	34.74165
Within	275	85.07239	0.309354
Total	276	119.8140	0.434109

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF2	125	1.166470	0.710530	0.063552
All	277	0.775942	0.658869	0.039588

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:06

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	193	-9.086529	0.0000
Satterthwaite-Weich t-test*	51.11269	-6.975868	0.0000
Anova F-test	(1, 193)	82.56502	0.0000
Welch F-test*	(1, 51.1127)	48.66274	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	16.82712	16.82712
Within	193	39.33427	0.203805
Total	194	56.16140	0.289492

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF3	43	1.163327	0.633652	0.096631
All	195	0.611027	0.538044	0.038530

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:07

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	203	0.995626	0.3206
Satterthwaite-Weich t-test*	84.20033	0.952880	0.3434
Anova F-test	(1, 203)	0.991272	0.3206
Welch F-test*	(1, 84.2003)	0.907981	0.3434

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.155019	0.155019
Within	203	31.74598	0.156384
Total	204	31.90100	0.156377

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF4	53	0.391977	0.422341	0.058013
All	205	0.438546	0.395446	0.027619

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:20

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	225	-7.442846	0.0000
Satterthwaite-Welch t-test*	81.30723	-5.583920	0.0000
Anova F-test	(1, 225)	55.39596	0.0000
Welch F-test*	(1, 81.3072)	31.18017	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	32.93285	32.93285
Within	225	133.7623	0.594499
Total	226	166.6952	0.737589

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFFD	152	0.454784	0.385762	0.031289
EFF5	75	1.264579	1.226353	0.141607
All	227	0.722337	0.858830	0.057003

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:21

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	158	-2.741259	0.0068
Satterthwaite-Welch t-test*	7.518068	-2.319381	0.0510
Anova F-test	(1, 158)	7.514502	0.0068
Welch F-test*	(1, 7.51807)	5.379529	0.0510

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.140389	1.140389
Within	158	23.97783	0.151758
Total	159	25.11822	0.157976

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF6	8	0.842148	0.464017	0.164055
All	160	0.474152	0.397462	0.031422

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:22

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	176	1.388736	0.1667
Satterthwaite-Welch t-test*	39.14798	1.606243	0.1163
Anova F-test	(1, 176)	1.928588	0.1667
Welch F-test*	(1, 39.148)	2.580016	0.1163

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.273232	0.273232
Within	176	24.93474	0.141675
Total	177	25.20797	0.142418

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFFD	152	0.454784	0.385762	0.031289
EFF7	26	0.343849	0.313948	0.061570
All	178	0.438580	0.377383	0.028286

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:23

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	215	0.618236	0.5371
Satterthwaite-Welch t-test*	93.48494	0.543378	0.5882
Anova F-test	(1, 215)	0.382215	0.5371
Welch F-test*	(1, 93.4849)	0.295260	0.5882

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.072702	0.072702
Within	215	40.89561	0.190212
Total	216	40.96831	0.189668

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF8	65	0.414824	0.536554	0.066551
All	217	0.442814	0.435509	0.029564

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:25

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	218	-9.074555	0.0000
Satterthwaite-Welch t-test*	81.64868	-7.133828	0.0000
Anova F-test	(1, 218)	82.34754	0.0000
Welch F-test*	(1, 81.6487)	50.89150	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	24.27847	24.27847
Within	218	64.27279	0.294829
Total	219	88.55126	0.404344

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF0	152	0.454784	0.385762	0.031289
EFF9	68	1.173646	0.789881	0.095787
All	220	0.676978	0.635880	0.042871

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	266	-8.173708	0.0000
Satterthwaite-Welch t-test*	234.2807	-8.044106	0.0000
Anova F-test	(1, 266)	66.80951	0.0000
Welch F-test*	(1, 234.281)	64.70764	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	26.82840	26.82840
Within	266	106.8185	0.401566
Total	267	133.6449	0.500543

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF2	125	1.166470	0.710530	0.063552
All	268	0.828060	0.707490	0.043217

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:26

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	184	-6.297895	0.0000
Satterthwaite-Welch t-test*	62.86077	-5.881022	0.0000
Anova F-test	(1, 184)	39.66348	0.0000
Welch F-test*	(1, 62.8608)	34.58642	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	13.16619	13.16619
Within	184	61.07835	0.331948
Total	185	74.24454	0.401322

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.045663
EFF3	43	1.163327	0.633652	0.096631
All	186	0.678142	0.633500	0.046450

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:28

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	194	1.661148	0.0983
Satterthwaite-Welch t-test*	122.3051	1.884067	0.0619
Anova F-test	(1, 194)	2.759412	0.0983
Welch F-test*	(1, 122.305)	3.549710	0.0619

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.760830	0.760830
Within	194	53.49006	0.275722
Total	195	54.25089	0.278210

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF4	53	0.391977	0.422341	0.058013
All	196	0.494317	0.527456	0.037675

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/16/10 Time: 22:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	216	-6.053843	0.0000
Satterthwaite-Welch t-test*	90.38783	-4.911776	0.0000
Anova F-test	(1, 216)	36.64902	0.0000
Welch F-test*	(1, 90.3878)	24.12554	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	26.38498	26.38498
Within	216	155.5064	0.719937
Total	217	181.8914	0.838209

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF5	75	1.264579	1.226353	0.141607
All	218	0.784196	0.915538	0.062008

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:29

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	149	-1.539852	0.1257
Satterthwaite-Welch t-test*	8.175822	-1.816942	0.1059
Anova F-test	(1, 149)	2.371143	0.1257
Welch F-test*	(1, 8.17582)	3.301279	0.1059

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.727605	0.727605
Within	149	45.72191	0.306858
Total	150	46.44951	0.309663

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF6	8	0.842148	0.464017	0.164055
All	151	0.548666	0.556474	0.045285

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:31

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	167	1.671420	0.0965
Satterthwaite-Welch t-test*	58.56519	2.438650	0.0178
Anova F-test	(1, 167)	2.793644	0.0965
Welch F-test*	(1, 58.5652)	5.947016	0.0178

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.780862	0.780862
Within	167	46.67881	0.279514
Total	168	47.45967	0.282498

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF7	26	0.343849	0.313948	0.061570
All	169	0.503263	0.531505	0.040885

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:32

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	206	1.423492	0.1561
Satterthwaite-Welch t-test*	128.4079	1.444667	0.1510
Anova F-test	(1, 206)	2.026331	0.1561
Welch F-test*	(1, 128.408)	2.087062	0.1510

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.616159	0.616159
Within	206	62.63968	0.304076
Total	207	63.25584	0.305584

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF8	65	0.414824	0.536554	0.066551
All	208	0.495552	0.552796	0.038330

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:34

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	209	-6.787206	0.0000
Satterthwaite-Welch t-test*	99.91863 (1, 209)	-6.019780	0.0000
Anova F-test	46.06616		0.0000
Welch F-test*	36.23776 (1, 99.9186)		0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.95917	18.95917
Within	209	86.01687	0.411564
Total	210	104.9760	0.499886

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF1	143	0.532247	0.558007	0.046663
EFF9	68	1.173646	0.789881	0.095787
All	211	0.738954	0.707026	0.048674

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:34

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	166	0.025693	0.9795
Satterthwaite-Welch t-test*	81.05435 (1, 166)	0.027174	0.9784
Anova F-test	0.000660		0.9795
Welch F-test*	0.000738 (1, 81.0543)		0.9784

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.000316	0.000316
Within	166	79.46537	0.478707
Total	167	79.46569	0.475842

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF3	43	1.163327	0.633652	0.096631
All	168	1.165665	0.699813	0.053220

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:35

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	176	7.393697	0.0000
Satterthwaite-Welch t-test*	156.9232	9.000668	0.0000
Anova F-test	(1, 176)	54.66675	0.0000
Welch F-test*	(1, 156.923)	81.01202	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	22.32549	22.32549
Within	176	71.87708	0.408392
Total	177	94.20257	0.532218

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF4	53	0.391977	0.422341	0.058013
All	178	0.936862	0.729533	0.054681

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:36

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	198	-0.716757	0.4744
Satterthwaite-Welch t-test*	104.2862	-0.632091	0.5287
Anova F-test	(1, 198)	0.513740	0.4744
Welch F-test*	(1, 104.286)	0.399539	0.5287

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.451192	0.451192
Within	198	173.8934	0.878250
Total	199	174.3446	0.876104

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF5	75	1.264579	1.226353	0.141607
All	200	1.203261	0.936004	0.066185

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:37

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	131	1.271236	0.2059
Satterthwaite-Welch t-test*	9.246778	1.843426	0.0975
Anova F-test	(1, 131)	1.516041	0.2059
Welch F-test*	(1, 9.24678)	3.398220	0.0975

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.790860	0.790860
Within	131	64.10893	0.489381
Total	132	64.89979	0.491665

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF6	8	0.842148	0.464017	0.164055
All	133	1.146962	0.701188	0.060901

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:38

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	149	5.775231	0.0000
Satterthwaite-Welch t-test*	86.78612	9.296644	0.0000
Anova F-test	(1, 149)	33.35330	0.0000
Welch F-test*	(1, 86.7861)	86.42760	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.56483	14.56483
Within	149	65.06583	0.436683
Total	150	79.63067	0.530871

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF7	26	0.343849	0.313948	0.061570
All	151	1.024826	0.728609	0.059293

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:41

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	188	7.487088	0.0000
Satterthwaite-Welch t-test*	163.6862	8.168182	0.0000
Anova F-test	(1, 188)	56.05649	0.0000
Welch F-test*	(1, 163.688)	66.71919	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	24.15996	24.15996
Within	188	81.02670	0.430993
Total	189	105.1867	0.556543

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF8	65	0.414824	0.536554	0.066551
All	190	0.909328	0.746018	0.054122

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:42

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	191	-0.064417	0.9487
Satterthwaite-Welch t-test*	125.7973	-0.062431	0.9503
Anova F-test	(1, 191)	0.004150	0.9487
Welch F-test*	(1, 125.797)	0.003898	0.9503

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.002268	0.002268
Within	191	104.4039	0.546617
Total	192	104.4062	0.543782

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF2	125	1.166470	0.710530	0.063552
EFF9	68	1.173646	0.789881	0.095787
All	193	1.168998	0.737416	0.053080

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:43

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	94	7.127020	0.0000
Satterthwaite-Welch t-test*	70.35043	6.843802	0.0000
Anova F-test	(1, 94)	50.79442	0.0000
Welch F-test*	(1, 70.3504)	46.83763	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.12461	14.12461
Within	94	26.13896	0.278074
Total	95	40.26357	0.423827

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	43	1.163327	0.633652	0.096631
EFF4	53	0.361977	0.422341	0.058013
All	96	0.737477	0.651020	0.066444

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:44

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	116	-0.503603	0.6155
Satterthwaite-Welch t-test*	115.0202	-0.590614	0.5559
Anova F-test	(1, 116)	0.253616	0.6155
Welch F-test*	(1, 115.02)	0.348824	0.5559

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.280192	0.280192
Within	116	128.1553	1.104787
Total	117	128.4355	1.097739

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	43	1.163327	0.633652	0.096631
EFF5	75	1.264579	1.226353	0.141607
All	118	1.227682	1.047730	0.096451

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:45

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	49	1.362306	0.1793
Satterthwaite-Welch t-test*	12.44998	1.686877	0.1165
Anova F-test	(1, 49)	1.855878	0.1793
Welch F-test*	(1, 12.45)	2.845555	0.1165

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.695795	0.695795
Within	49	18.37081	0.374914
Total	50	19.06660	0.381332

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	43	1.163327	0.633652	0.096631
EFF6	8	0.842148	0.464017	0.164055
All	51	1.112946	0.617521	0.086470

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:47

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	67	6.141588	0.0000
Satterthwaite-Welch t-test*	65.02081	7.152045	0.0000
Anova F-test	(1, 67)	37.71910	0.0000
Welch F-test*	(1, 65.0208)	51.15175	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	10.88095	10.88095
Within	67	19.32771	0.288473
Total	68	30.20867	0.444245

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	43	1.163327	0.633652	0.096631
EFF7	26	0.343849	0.313948	0.061570
All	69	0.854538	0.666517	0.080239

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	106	6.599459	0.0000
Satterthwaite-Weich t-test*	79.54802	6.379398	0.0000
Anova F-test	(1, 106)	43.55287	0.0000
Welch F-test*	(1, 79.548)	40.69671	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	14.49923	14.49923
Within	106	35.28858	0.332911
Total	107	49.78782	0.465307

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	43	1.163327	0.633652	0.096631
EFF8	65	0.414824	0.536554	0.066551
All	108	0.712839	0.682134	0.065638

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:48

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	109	-0.072194	0.9426
Satterthwaite-Weich t-test*	102.8444	-0.075843	0.9397
Anova F-test	(1, 109)	0.005212	0.9426
Welch F-test*	(1, 102.844)	0.005752	0.9397

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.002805	0.002805
Within	109	58.66577	0.538218
Total	110	58.66857	0.533351

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF3	43	1.163327	0.633652	0.096631
EFF9	68	1.173646	0.789881	0.095787
All	111	1.169649	0.730309	0.069318

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:49

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	126	-4.971083	0.0000
Satterthwaite-Welch t-test*	97.03424	-5.702181	0.0000
Anova F-test	(1, 126)	24.71167	0.0000
Welch F-test*	(1, 97.0342)	32.51486	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	23.64612	23.64612
Within	126	120.5670	0.956881
Total	127	144.2131	1.135536

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	53	0.391977	0.422341	0.058013
EFF5	75	1.264579	1.226353	0.141607
All	128	0.903267	1.065615	0.094188

Test for Equality of Means Between Series

Date: 01/17/10 Time: 01:50

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	59	-2.776273	0.0074
Satterthwaite-Welch t-test*	8.841501	-2.587045	0.0298
Anova F-test	(1, 59)	7.707691	0.0074
Welch F-test*	(1, 8.8415)	6.692803	0.0298

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.408615	1.408615
Within	59	10.78252	0.182754
Total	60	12.19113	0.203186

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	53	0.391977	0.422341	0.058013
EFF6	8	0.842148	0.464017	0.164055
All	61	0.451015	0.450761	0.057714

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:02

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	77	0.514785	0.6082
Satterthwaite-Welch t-test*	64.61071	0.568912	0.5714
Anova F-test	(1, 77)	0.265003	0.6082
Welch F-test*	(1, 64.6107)	0.323661	0.5714

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.040402	0.040402
Within	77	11.73942	0.152460
Total	78	11.77982	0.151023

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	53	0.391977	0.422341	0.058013
EFF7	26	0.343849	0.313948	0.061570
All	79	0.376137	0.388617	0.043723

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:03

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	116	-0.252625	0.8010
Satterthwaite-Welch t-test*	115.8724	-0.258785	0.7963
Anova F-test	(1, 116)	0.063819	0.8010
Welch F-test*	(1, 115.872)	0.066970	0.7963

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.015240	0.015240
Within	116	27.70029	0.238796
Total	117	27.71553	0.236885

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	53	0.391977	0.422341	0.058013
EFF8	65	0.414824	0.536554	0.066551
All	118	0.404562	0.486708	0.044805

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:04

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	119	-6.511510	0.0000
Satterthwaite-Welch t-test*	106.6738	-6.980114	0.0000
Anova F-test	(1, 119)	42.39976	0.0000
Welch F-test*	(1, 106.674)	48.72199	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	18.19893	18.19893
Within	119	51.07748	0.429222
Total	120	69.27641	0.577303

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF4	53	0.391977	0.422341	0.058013
EFF9	68	1.173646	0.789881	0.095787
All	121	0.831262	0.759805	0.069073

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:05

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	81	0.962459	0.3387
Satterthwaite-Welch t-test*	20.25316	1.949222	0.0653
Anova F-test	(1, 81)	0.926327	0.3387
Welch F-test*	(1, 20.2532)	3.799467	0.0653

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.289983	1.289983
Within	81	112.7988	1.392578
Total	82	114.0888	1.391327

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	75	1.264579	1.226353	0.141807
EFF6	8	0.842148	0.464017	0.164055
All	83	1.223863	1.179545	0.129472

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series
Date: 01/17/10 Time: 02:07
Sample: 1 288
Included observations: 288

Method	df	Value	Probability
t-test	99	3.774155	0.0003
Satterthwaite-Weich t-test*	94.61474 (1, 99)	5.962764	0.0000
Anova F-test	14.24425		0.0003
Weich F-test*	(1, 94.6147)	35.55455	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	16.36732	16.36732
Within	99	113.7557	1.149048
Total	100	130.1231	1.301231

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	75	1.264579	1.226353	0.141607
EFF7	26	0.343849	0.313948	0.061570
All	101	1.027559	1.140715	0.113505

Test for Equality of Means Between Series
Date: 01/17/10 Time: 02:07
Sample: 1 288
Included observations: 288

Method	df	Value	Probability
t-test	138	5.172003	0.0000
Satterthwaite-Weich t-test*	104.4098 (1, 138)	5.430922	0.0000
Anova F-test	26.74962		0.0000
Weich F-test*	(1, 104.41)	29.49492	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	25.14398	25.14398
Within	138	129.7166	0.939975
Total	139	154.8606	1.114105

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	75	1.264579	1.226353	0.141607
EFF8	65	0.414824	0.536554	0.066551
All	140	0.870050	1.055512	0.089207

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:08

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	141	0.521157	0.6031
Satterthwaite-Welch t-test*	127.6859	0.531891	0.5957
Anova F-test	(1, 141)	0.271604	0.6031
Welch F-test*	(1, 127.686)	0.282908	0.5957

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.294900	0.294900
Within	141	153.0938	1.085772
Total	142	153.3887	1.080202

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF5	75	1.264579	1.226353	0.141607
EFF9	68	1.173646	0.789881	0.095787
All	143	1.221338	1.039328	0.086913

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:09

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	32	3.498586	0.0014
Satterthwaite-Welch t-test*	9.060483	2.843717	0.0192
Anova F-test	(1, 32)	12.24010	0.0014
Welch F-test*	(1, 9.06048)	8.086729	0.0192

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.519024	1.519024
Within	32	3.971270	0.124102
Total	33	5.490294	0.166373

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF6	8	0.842148	0.464017	0.164055
EFF7	26	0.343849	0.313948	0.061570
All	34	0.461096	0.407888	0.069952

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:10

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	71	2.152534	0.0348
Satterthwaite-Welch t-test*	9.465432	2.413721	0.0377
Anova F-test	(1, 71)	4.633404	0.0348
Welch F-test*	(1, 9.46543)	5.826048	0.0377

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	1.300756	1.300756
Within	71	19.93214	0.280734
Total	72	21.23290	0.294901

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF8	8	0.842148	0.464017	0.164055
EFF8	65	0.414824	0.536554	0.066551
All	73	0.461654	0.543048	0.063559

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:11

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	74	-1.159308	0.2501
Satterthwaite-Welch t-test*	12.43525	-1.744988	0.1056
Anova F-test	(1, 74)	1.343994	0.2501
Welch F-test*	(1, 12.4352)	3.044984	0.1056

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.786587	0.786587
Within	74	43.30932	0.585261
Total	75	44.09591	0.587945

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF6	8	0.842148	0.464017	0.164055
EFF9	68	1.173646	0.789881	0.095787
All	76	1.138752	0.766776	0.087955

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:15

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	89	-0.631339	0.5294
Satterthwaite-Welch t-test*	76.66435	-0.782832	0.4361
Anova F-test	(1, 89)	0.398588	0.5294
Welch F-test*	(1, 76.6643)	0.612826	0.4361

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	0.093552	0.093552
Within	89	20.88905	0.234708
Total	90	20.98260	0.233140

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF7	26	0.343849	0.313948	0.061570
EFF8	65	0.414824	0.536554	0.066551
All	91	0.394545	0.482846	0.050616

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:16

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	92	-5.188081	0.0000
Satterthwaite-Welch t-test*	91.80254	-7.287312	0.0000
Anova F-test	(1, 92)	26.91618	0.0000
Welch F-test*	(1, 91.8025)	53.10492	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	12.95085	12.95085
Within	92	44.26623	0.481155
Total	93	57.21708	0.615237

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF7	26	0.343849	0.313948	0.061570
EFF9	68	1.173646	0.789881	0.095787
All	94	0.944128	0.784371	0.080902

2008 Efficiency Scores—Sector to Sector Compared Averages

Test for Equality of Means Between Series

Date: 01/17/10 Time: 02:17

Sample: 1 288

Included observations: 288

Method	df	Value	Probability
t-test	131	-6.451565	0.0000
Satterthwaite-Welch t-test*	118.4115	-6.505828	0.0000
Anova F-test	(1, 131)	41.622689	0.0000
Welch F-test*	(1, 118.412)	42.32580	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	1	19.13598	19.13598
Within	131	60.22710	0.459749
Total	132	79.36308	0.601235

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
EFF8	65	0.414824	0.536554	0.066551
EFF9	68	1.173646	0.789881	0.095787
All	133	0.802793	0.775394	0.067235